



Government of the Republic
of Timor-Leste

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A photograph of three people fishing in the ocean at sunset. The sun is low on the horizon, creating a golden glow and long shadows. The water is dark blue with ripples. In the background, a small boat is visible on the water.

POLICY AND ACTION PLAN FOR THE PROMOTION OF A RESILIENT AND SUSTAINABLE ECONOMY OF THE SEA IN TIMOR-LESTE

2025-2035

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ACRONYMS AND ABBREVIATIONS

ADB - Asian Development Bank

AIS - Forum of Archipelagic and Insular States

AMR - Antimicrobial resistance

AND, I.P. - National Authority Designated for Combat Climate Change AND, P.I.

ANLA, I.P. - National Environmental Licensing Authority, P.I.

ANM, I.P. - National Minerals Authority, P.I.

ANP, I.P. - National Petroleum Authority, P.I.

ASEAN - Association of Southeast Asian Nations

ATSEA - Arafura and Timor Seas Ecosystem Action Programme

ATS – Arafura and Timor Seas

ATTL, I.P. - Tourism Authority of Timor-Leste, P.I.

BBNJ Agreement - Agreement on the Conservation and Sustainable Use of Marine Biodiversity in Areas Beyond National Jurisdiction

C4ISR - Command, Control, Communications, Computers, Cybersecurity, Intelligence, Surveillance, and Reconnaissance

CCI-TL - Chamber of Commerce and Industry of Timor-Leste

CCS - Carbon Capture and Storage

CFDI - Coral Fish Diversity Index

CITES - Convention on International Trade in Endangered Species of Wild Fauna and Flora

CNEFP - National Centre for Employment and Professional Training

CMS - Convention on Migratory Species of Wild Animals (Bonn Convention)

COLREG - Convention on the International Regulations for Preventing Collisions at Sea

COMPAC-TL - Combating Malnutrition and Poverty through Aquaculture in Timor-Leste

CPLP - Community of Portuguese Speaking Countries

CTI – Coral Triangle Initiative

CTI-CFF - Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security

CZMP - Coastal Zone Management Plans

DGPO - Directorate-General for Budget

DLNG - Darwin Liquefied Natural Gas

EBSA - Ecologically or Biologically Significant Areas

EEZ - Exclusive Economic Zone

EIA - Environmental Impact Assessment

EITI - Extractive Industries Transparency Initiative

ENSO - El Niño-Southern Oscillation

FAO - Food and Agriculture Organization of the United Nations

FEDA - Atauro Special Development Fund

FEMAT / ATSEF - Arafura and Timor Seas Experts Forum

F-FDTL - Timor-Leste Defence Forces

GDP - Gross Domestic Product

GHG - Greenhouse Gases

GIZC - Integrated Coastal Zone Management

GMA - Global Mangrove Alliance

IGTL I.P. - Timor-Leste Geosciences Institute, P.I.

IMO - International Maritime Organization

INCT - National Institute of Science and Technology

INDMO - National Institute for Manpower Development

INETL I.P. - National Statistics Institute of Timor-Leste, P.I.

INTC - National Institute of Technology and Science

INTERFET - International Force for Timor-Leste (1999 multinational military mission)

IPBES - Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

IPCC - Intergovernmental Panel on Climate Change

ISPS - International Ship and Port Facility Security Code

IUCN – International Union for Conservation of Nature

IUU Fishing - Illegal, Unreported, and Unregulated Fishing

IWC – International Whaling Commission

JPDA - Joint Petroleum Development Area

LDCs - Least Developed Countries

LMBO - Land and Maritime Boundaries Office

M - Nautical Miles

MAE - Ministry of State Administration

MALFF - Ministry of Agriculture, Livestock, Fisheries, and Forestry

MARPOL - International Convention for the Prevention of Pollution from Ships

MESCC - Ministry of Higher Education, Science, and Culture

MJ – Ministry of Justice

MJDAC - Ministry of Youth, Sports, Arts, and Culture

MNEC - Ministry of Foreign Affairs and Cooperation

MPIE - Ministry of Planning and Strategic Investment

MPA - Marine Protected Area

MPAs - Marine Protected Areas

MTA - Ministry of Tourism and Environment

Murak Rai, S.A. - Mining Company of Timor-Leste

NAPA - National Adaptation Program for Climate Change

NDC - Nationally Determined Contribution

NMA - National Maritime Authority

NOAA – National Oceanic and Atmospheric Administration, USA

OHI - Ocean Health Index

OECD - Organization for Economic Cooperation and Development

PADTL - Partnership for the Development of Aquaculture in Timor-Leste

PEMSEA - Partnership for the Environmental Management of the Seas of East Asia

PNOT-TL - National Spatial Planning Plan of Timor-Leste

PPP - Public-Private Partnership

PSC - Production Sharing Contract

RAEOA - Special Administrative Region of Oe-Cusse Ambeno

RDTL - Democratic Republic of Timor-Leste

SAM - Maritime Authority System

SDGs - Sustainable Development Goals

SEA - Strategic Environmental Assessment

SIDS - Small Island Developing States

SJV - Greater Sunrise Development Consortium

SNAP - National System of Protected Areas

SOLAS - International Convention for the Safety of Life at Sea

SSF - Small-Scale Fisheries

STCW - Standards of Training, Certification, and Watchkeeping for Seafarers

TIMOR GAP, E.P. - Timor Gas & Petroleum, E.P. - National Oil and Gas Company

TLNG - Timor-Leste Liquefied Natural Gas

UFM - Maritime Training Unit

UNCDB - United Nations Convention on Biological Diversity, also known as the Biodiversity Convention

UNCLOS - United Nations Convention on the Law of the Sea

UN - United Nations

UNDP - United Nations Development Program

UNESCO/UNC - United Nations Educational, Scientific and Cultural Organization/UNESCO National Commission

UNFCCC - United Nations Framework Convention on Climate Change

UNTAET - United Nations Transitional Administration in East Timor (UN mission between 1999–2002)

UNTL - Timor Lorosa'e National University

WB - World Bank

WHO - World Health Organization

WTO - World Trade Organization

WWF - World Wide Fund for Nature

ZEPAE - Special Environmental and Ecological Protection Areas

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«The sea, once it casts its spell, holds one in its net of wonder forever.»
Jacques-Yves Cousteau

PREAMBLE

The “*Policy and Action Plan for the Promotion of a Resilient and Sustainable Economy of the Sea in Timor-Leste*” aims to establish the political vision and action strategy of the Ninth Constitutional Government for this sector over next ten years (2025-2035).

In promoting a resilient and sustainable economy of the sea, fundamentally grounded in an ecosystem-based approach, the aim is to enhance the value of the ocean and marine resources through balanced planning of their use and the development of economic activities, considering the capacity of marine ecosystems to support such activities and their recovery.

There is no single definition of the Blue Economy. The approach adopted here fundamentally seeks a paradigm shift in the economic development of Timor-Leste through the adoption of an integrated approach that balances the sustainable use of marine resources, the improvement of people’s living conditions, and the protection of marine ecosystems, while simultaneously promoting, in an inclusive way, job creation, the eradication of poverty and the mitigation of the impacts of climate change.

The Blue Economy encompasses three key factors: the social factor, with a view to skills development and reducing poverty, generating income, and improving living standards; the economic factor, which includes consumption, production, trade, services and investment; and the environmental factor, which focuses on the protection of ecosystems and natural resources¹.

The aim is therefore to develop an important and innovative sector of Timor-Leste’s economy, which will incorporate cross-cutting policies and actions to be implemented by various institutions and specialist sectors, to harness the benefits and potential of the ocean with a view to the country’s sustainable development. This will contribute to job creation for all citizens, including women, men, young people and people with special needs, thereby promoting inclusive development and reducing inequalities in the country.

Timor-Leste is a coastal state situated on the eastern part of the island of Timor, surrounded by crystal-clear waters teeming with biodiversity. Timor-Leste is in the Coral Triangle, one of the regions on the planet with the highest concentration of biodiversity and marine species.

The Coral Triangle comprises 30% of the world’s coral reefs. This region, which harbours around 76% of known coral species, also contains the greatest diversity of reef fish, with 2,228 species or 37% of the world’s reef fish species.² The Coral Triangle extends across 6,000,000 km² of land and sea, encompassing the territories of Indonesia, Malaysia, Papua New Guinea, the Philippines, the Solomon Islands, and Timor-Leste, and is home to six of the world’s seven marine turtle species, as well as blue whales, sperm whales and dugongs.

Timor-Leste, surrounded by rich coral reefs and dense mangrove forests, has an important national maritime space and vast marine resources, valued by its people since time immemorial. The Timorese people's long-standing relationship with the ocean means that environmental sustainability is embedded in Timorese culture, with traditional ceremonies such as Tara Bandu often used to ensure environmental conservation and future sustainability.

The Blue Economy model that is to be adopted aims to develop a resilient and sustainable maritime economy based on the sustainable use of maritime space and coastal and transitional zones, enabling economic growth, improved social conditions and environmental preservation. It is, therefore, a priority and strategic area for policy intervention in national development that respects the international and national legal framework and the commitments made by Timor-Leste in this regard, as well as the cultural heritage and identity of the Timorese people.

The development and implementation of policies and initiatives within the scope of the Blue Economy falls under the direct leadership and coordination of the Prime Minister, as set out in the Organisational Structure of the Ninth Constitutional Government.³

This leadership initiative aims to give concrete expression to the close relationship between Timor-Leste and the Timorese people and the adjacent maritime spaces over which it exercises sovereign and jurisdictional rights (hereinafter referred to as the “national maritime space”), aiming to create a legal framework in line with international best practice that ensures a healthy environmental status and provides legal security and certainty.

The Prime Minister is directly supported through the Blue Economy Unit of the Land and Maritime Boundary Office, which, in addition to supporting negotiations on land and maritime boundaries, also has the mandate to support the development and implementation process of the Blue Economy Policy and Action Plan, in close cooperation with all public State agencies, as well as development partners, international organisations and agencies, civil society and national non-governmental organisations, and the private sector.

The Political Framework and Action Plan for the Blue Economy in Timor-Leste is guided by the following principles and objectives:

— **Good ocean governance:** The establishment of an appropriate political and administrative framework for the development of the Blue Economy, including the revision and creation of a necessary and suitable legal framework, along with associated policies to ensure coordinated, integrated, cross-sectoral, and multidisciplinary management. Good ocean governance includes the necessary land-sea interaction, requiring good inter-sectoral coordination and political and technical articulation between land and maritime spatial planning.

— **Protection, preservation, and conservation of the marine environment:** The assessment of current measures for the protection, preservation and conservation of marine ecosystems, considering their adequacy and efficiency, and the development of new measures aimed at ensuring sustainability and resilience of marine ecosystems. These biodiversity studies and inventories must be supported by a robust scientific basis.

— **Intergenerational responsibility:** The marine environment must be safeguarded for the benefit of future generations. Consequently, for a secure and lasting investment in the future of the national Blue Economy, it is crucial to foster a ‘blue generation’ now – a generation of citizens who are aware of the importance of the ocean and marine resources. It is also important to raise awareness of the value of the sea as a strategic asset and its importance for the sustainable economic development of the Timorese people.

— **Sustainable development:** The success of the Blue Economy depends on the planning, monitoring and evaluation of policies, programs and projects that promote balanced economic development, where “use” does not equate to “exhaustion” of resources, considering the principles of environmental, social, and economic sustainability.

— **Support for innovation:** The Blue Economy is associated with technological innovation and the creation of new business opportunities, encouraging research and the development of recent technologies and practices. In Timor-Leste, a young and fragile State, investing in technological innovation is a challenge not only due to the scarcity of financial resources but also to the limited capacity of human resources with expertise in specific areas related to the development of the Blue Economy.

— **National cooperation, from central to local government:** The implementation of the Blue Economy in Timor-Leste requires the participation of all components of society – central and local government, public and private entities, civil society, women's organisations, associations of persons with disabilities and the media. These strategic partners are crucial in identifying threats and challenges, as well as the opportunities that the Blue Economy presents. As such, the process requires full exercise of the rights to information and public participation. Local communities' privileged knowledge is essential in defining and implementing suitable policies for the development of the Blue Economy. Their active participation, in close collaboration with the Government and public and private partners, both national and international, is a vital condition of this political and strategic vision.

— **International and regional cooperation:** Fostering international and regional cooperation to promote the Blue Economy in Timor-Leste is vital to overcoming global and regional threats and challenges, as marine resources know no borders and their protection and conservation require coordinated action beyond national boundaries. Moreover, the sharing of knowledge and experiences, as well as the pursuit of best practices and technical capabilities from friendly and cooperative countries, will be crucial in the initial phase of Blue Economy development. Timor-Leste will participate in various international fora and make use of the international cooperation platforms in which it participates, with the dual objectives of developing strategic partnerships and participating actively in the global framework for ocean and sea governance.

PART I

1. INTRODUCTION

«To look to the sea is to look to the future. To look after the sea is to guarantee a sustainable future.»

Xanana Gusmão

On 1 July 2023, during the inauguration of the Ninth Constitutional Government, the Prime Minister pledged to diversify the economy for the sustainable growth of the nation.

A new Government strategy to achieve this objective involves optimising the use of the national maritime space and marine natural resources in a sustainable way, as a new paradigm for national development.

The Programme of the Ninth Constitutional Government identifies the key public policies to be adopted to strengthen and optimise the governance sectors and their resources, thereby shortening the path to transforming the vision of prosperity and sustainable development into reality. The Government will continue to invest in the productive sectors now with a focus on the Blue Economy potential for the economic diversification.

This strategy will enable the transformation of the country's natural wealth into food security, health, productivity, and job creation opportunities. This includes recognising the importance of marine ecosystem services, where nature is a capital to be preserved, considering the dividends humanity gains from the services it provides.

Marine ecosystem services are the benefits that ecosystems provide to humans⁴. These benefits can be classified as:

- **Supporting services:** maintenance of genetic diversity, primary production, food webs, photosynthesis, and the water and nutrient cycles;
- **Provisioning services:** marine-sourced water and food, medicinal and pharmacological resources, genetic resources, raw materials (oil, natural gas, and minerals), renewable energy and maritime space;
- **Regulating services:** climate regulation, carbon sinks, mitigation of extreme events, shoreline stabilisation and coastal erosion prevention, and the recycling of nutrients and waste; and
- **Cultural services:** tourism, sport, recreation, leisure, scientific and educational activities, historical and cultural heritage, aesthetic appreciation, artistic inspiration, and spiritual and psychological benefits.

Timor-Leste is committed to the United Nation's 2030 Agenda for Sustainable Development, and to the 17 Sustainable Development Goals (SDGs), developed with the aim of promoting sustainable

practices across various dimensions, particularly the five key areas: planet, people, prosperity, peace, and partnerships.

This international framework also acts as a catalyst for the Blue Economy, particularly regarding SDG 14, which aims to *“conserve and sustainably use the oceans, seas and marine resources for sustainable development.”*

In addition to SDG 14, the Blue Economy will facilitate progress towards other SDGs, namely SDG 1 – “End poverty in all its forms everywhere”; SDG 2 – “End hunger, achieve food security and improved nutrition”; SDG 8 – “Promote inclusive and sustainable economic growth and full and productive employment”; and SDG 13 – “Take urgent action to combat climate change and its impacts.”

Furthermore, within the context of the “Decade of Ocean Science for Sustainable Development”, promoted by United Nations Educational, Scientific and Cultural Organisation (UNESCO) through the Intergovernmental Oceanographic Commission, Timor-Leste aims to benefit from the mobilisation of the global scientific community, global policymakers, and initiatives from businesses and civil society, to participate in the development of ocean science and to seek innovative solutions to ensure the conservation and sustainable use of the ocean, seas and marine resources.

Timor-Leste is also a party to the Kunming-Montreal Global Biodiversity Framework, established under the United Nations Convention on Biological Diversity, which reflects the country's commitment to actively engage in global efforts to conserve and sustainably use biodiversity. This commitment not only reaffirms Timor-Leste's determination to implement actions that protect its biodiversity but also creates opportunities for access to international funding, technical assistance, and the exchange of knowledge and technology for biodiversity projects – crucial for developing countries.

In short, the international mechanisms in which Timor-Leste participates allow common environmental challenges to be tackled collectively, benefiting both national and global populations and ecosystems over the long term.

Aligned with this ambition of economic, social and environmental sustainability is the further objective of achieving full sovereignty over Timor-Leste's maritime space, which requires the delimitation of maritime boundaries with Indonesia.

Timor-Leste successfully concluded the maritime boundary delimitation process with Australia through the compulsory conciliation procedure under the United Nations Convention on the Law of the Sea (UNCLOS), to which Timor-Leste is a State Party. The outcome of the conciliation led to the signing of the *“Treaty between the Democratic Republic of Timor-Leste and Australia Establishing Their Maritime Boundaries in the Timor Sea,”* in March 2018, which was ratified in August 2019.

The Maritime Boundary Treaty ensures a median line in the Timor Sea, with only a slight adjustment to achieve an equitable outcome, as required by international maritime law of the sea. The Treaty defines the “continental shelf”, including rights to survey and exploit seabed resources such as oil, as well as the EEZ with the respective rights to exploit resources in the water column, such as fisheries.

These rights will be further expanded through decisions on the development of the Greater Sunrise fields together with Australia, and with the recognition of Timor-Leste's full rights over those resources through the delimitation of maritime boundaries with Indonesia.

The delimitation of maritime boundaries is, therefore, intrinsically linked to the importance of the maritime territory for Timor-Leste, including the Blue Economy.

The Blue Economy thus encompasses a wide range of economic sectors, from traditional activities such as fishing, maritime tourism and maritime transport activities such as shipbuilding and repair. It also provides jobs in activities involving greater technological innovation, such as offshore oil and gas extraction, the development of offshore renewable energies and marine biotechnology (Figure 1).

The sea is also part of our intergenerational legacy. As such, it is essential to invest in ocean literacy, education, and training for all generations, to raise awareness of the need to preserve and protect the marine environment, including the designation and management of marine protected areas, among other activities.



Figure 1: Key Sectors of the Blue Economy

For this reason, the Prime Minister, Xanana Gusmão, who at the time was the Chief Negotiator for the Definitive Delimitation of Maritime Boundaries was also appointed in December 2019 as Special Representative of the Government of Timor-Leste for the Blue Economy, to provide coordinated advocacy at national and international level and to support and lead matters related to the Blue Economy of Timor-Leste.⁵

In 2021, under his guidance, an awareness-raising program on the importance of the national maritime space was launched. This awareness campaign, entitled *Ha'u nia Tasi, Ha'u nia Timor* (*My Sea, My Timor*), is a campaign to unite national support around maritime boundary negotiations and strengthen the country's position in the fight for maritime sovereignty. It also publicises and promotes Timor-Leste's marine resources and their potential for the country's development.

"Far and away, the greatest threat to the ocean, and thus to ourselves, is ignorance."
Sylvia Earle, *Blue Mission*

The campaign also aims to raise awareness about the importance of ocean health and to foster understanding of the ocean's irreplaceable influence on human beings, through its economic, social, environmental, and political benefits.

As part of the campaign, numerous educational and promotional resources have been produced, which have been published in books, under the title *Ha'u Nia Tasi, Ha'u Nia Timor* (children's books and photography books), or in audio visual format, as well as awareness kits on the importance and need to conserve the marine environment, particularly aimed at children and young people.



Figure 2: Educational and promotional materials from the *Ha'u Nia Tasi, Ha'u Nia Timor* campaign

For all these reasons, the strategic framework to be defined for the country represents a commitment to innovation and change in the transition towards sustainable development – bringing the environment, people, and the economy together with a common goal.

2. THE BLUE ECONOMY IN THE WORLD AND IN TIMOR-LESTE

«As the world evolves, the content surrounding the Blue Economy must grow without limitations, knowing that we have the responsibility to navigate between fantasy and reality, towards the vision.»

Gunter Pauli

Gunter Pauli, the “*Steve Jobs of Sustainability*,” visionary and founder of the Blue Economy concept, inaugurated this innovative approach that seeks the development of economic solutions based on sustainable practices derived from the efficiency of natural systems. This idea of using locally available resources to solve problems, inspired by the way in which natural ecosystems work, where nothing is wasted and everything has value, is intricately linked to the Timorese way of life over hundreds of years.

The Blue Economy concept has grown rapidly around the world in recent years. This is because it is scientifically accepted that a healthy ocean provides solutions to many of today’s global challenges.

According to the World Bank (WB), the Blue Economy is the “*sustainable use of ocean resources for economic growth, improved livelihoods and jobs, whilst preserving the health of ocean ecosystems*”.

The European Commission (EC) defines the Blue Economy as “*all economic activities related to the oceans, seas and coasts. It covers a wide range of interconnected established and emerging sectors*”.

The United Nations (UN) has defined the Blue Economy as an economy that “*encompasses a range of economic sectors and related policies which, together, determine whether the use of ocean resources is sustainable*”.

Furthermore, Conservation International (CI), a non-governmental organisation dedicated to conserving global biodiversity, adds to these concepts that “*the Blue Economy also includes benefits that cannot be commercialised, such as carbon sequestration, coastal protection, cultural values and biodiversity*”.

Finally, the Organisation for Economic Cooperation and Development (OECD) considers that there is no single definition of the Blue Economy or the ocean economy, as these terms are often used interchangeably by international organisations and government institutions. The OECD’s definition of the ocean economy “*takes into account the economic activities of ocean-based industries, as well as the assets, goods and services provided by marine ecosystems, whilst the sustainable ocean economy recognises the need to integrate the economic, social and environmental dimensions of sustainability, in line with the United Nations Sustainable Development Goals*”.

That said, and whilst noting that Timor-Leste has its own concept, tailored to its circumstances and its vision for the future, it is essential to agree that Timor-Leste’s future depends heavily on placing the sea at the centre of political decision-making.

The sea shaped Timor-Leste’s past and is one of the pillars of its vision for the future. For the people of the island of Timor-Leste, the sea is an integral part of our way of life and have a spiritual meaning for the Timorese people. According to legend, the Timorese are the grandchildren of the crocodile –

“after its death, its body became the land of Timor, the ridges on its back became the mountains and valleys, and the oceans its final resting place.”

Many Timorese rely on the sea for their sustenance and livelihood, fishing and gathering marine species. The rich coral reefs, with the greatest biodiversity in the world, and the steep underwater cliffs surrounding Timor-Leste, are a growing attraction for tourists.

The warm waters and beautiful tropical beaches, the annual migration of blue whales, dolphins and dugongs, the region's distinctive culture and the welcoming nature of the people, are the ideal conditions to develop community-based tourism, which contributes to job creation and poverty reduction, without reducing the quantity or diversity of marine wealth.

Fishing is a fundamental activity for Timor-Leste's economy. However, Timor-Leste's lack of capacity to exercise effective surveillance over its national maritime space has allowed illegal fishing by foreign commercial fleets, causing great economic and environmental damage. Solutions must be found to put an end to this situation and to ensure the sustainability of fish species that are being exploited in an uncontrolled and illegal manner.

Moreover, there are development opportunities to explore, including aquaculture, maritime transport and infrastructure, port facilities and activities, and marine renewable energy. These opportunities must be supported by an ocean sustainability plan regulating the maritime area under Timorese jurisdiction, in which long-term economic and social development includes protection of the marine ecosystem.

The concept of the Blue Economy that serves Timor-Leste is one that associates the economic potential of marine resources with the necessary national sustainable development, without neglecting nature conservation and environmental resilience. Thus, the **concept** of the Blue Economy for Timor-Leste is:

The set of integrated policies and actions that, with a focus on the sea, support the country's economic and social development, based on sound environmental practices, in a diversified, sustainable, and inclusive manner, ensuring the long-term balance of marine ecosystems and resources.

2.1. The Blue Economy and Economic Growth

Today, humanity is more dependent than ever on the ocean for economic, social, and physical well-being.

The Blue Economy seeks to promote sustainable development through economic activities that use the sea and its resources in a way that balances economic growth, job creation and environmental preservation; in other words, it is an approach within the broader context of the ocean economy, with a strong focus on environmental conservation and the responsible use of marine resources.

A 2016 OECD report states that maritime activities, from global trade to tourism, exceed \$3 trillion annually. From submarine cables to shipping, fishing and aquaculture, humans are increasingly

dependent on the ocean-based economy. In fact, around 20% of the animal protein we consume comes from marine fish.⁶

More recently, in 2025, a new report states that if the ocean were a country, its economy would be the fifth largest in the world. However, environmental pressures and geopolitical dynamics threaten the future growth of this economy, on which hundreds of millions of people depend⁷.

This report highlights that more than 75% of global ocean economic growth between 1995 and 2020 originated in Asia-Pacific countries. East Asia alone accounted for 56% of the global ocean economy's expansion.

Tourism and offshore oil and gas extraction generated about two-thirds of the total gross value added. On the other hand, maritime and coastal tourism was the largest employer. Offshore oil and gas extraction generated high economic returns but low employment. Shipbuilding and offshore wind energy production also expanded rapidly.

However, there are warnings of a possible stagnation in the transition to an ocean economy, mainly due to a combination of lack of investment in productivity and the growing negative effects of climate change in many parts of the ocean economy.

For this reason, according to OCDE, four strategic priorities will promote a productive and environmentally sustainable ocean economy: strengthening ocean governance; promoting technological innovation; improving ocean data collection; and ensuring the inclusion of developing countries in global value chains.

To strengthen ocean governance, science-based ocean management tools are needed that balance economic and environmental priorities, such as maritime spatial planning and marine protected areas.

With national territorial claims expanding to cover more than 39% of the global ocean, national positions on ocean issues can be strengthened by pragmatic international cooperation through agreements such as the World Trade Organisation (WTO) Agreement on Fisheries Subsidies and the Agreement on the High Seas (BBNJ). These efforts can help close regulatory and enforcement gaps (e.g. by reforming harmful subsidies that often lead to overfishing) and align economic incentives with sustainability goals.

Governments are also encouraged to promote technological innovation and digital transformation, including through automation and robotics to increase productivity and competitiveness and reduce environmental externalities.

Improving ocean observation data collection and scientific research is essential. Given that only 25% of the seabed is mapped, ocean exploration and observation networks should be expanded using new digital technologies. These efforts should improve science-based decision-making and resource management. To support these developments, better policies on access to public and private ocean data will be essential.

The OECD report also considers it important to broaden the participation of developing countries in

the ocean economy, while safeguarding against environmental damage by encouraging policies such as sustainable fisheries management and incentives for eco-tourism. In addition, the promotion of new international partnerships will facilitate knowledge sharing and strengthen financial support and technology transfer.⁸

3. GENERAL FRAMEWORK

«The sea is crucial to human life. It gives us practically everything we need: food, health, connectivity, entertainment, inspiration, and prosperity.»

Xanana Gusmão

The ocean covers around 70% of the Earth's surface. Knowing and understanding the importance of the ocean for human beings, as well as human influence on the ocean, are determining factors for the planet's future sustainability.

For this reason, the concept of ocean literacy has been developed, based on the following seven key principles⁹:

1. *Earth has one big ocean with many features.*
2. *The ocean and life in the ocean shape the features of Earth.*
3. *The ocean has a major influence on weather and climate.*
4. *The ocean makes Earth habitable.*
5. *The ocean supports a great diversity of life and ecosystems.*
6. *The ocean and humans are inextricably interconnected.*
7. *The ocean is largely unexplored.*

Scientists believe that Earth's oldest form of life evolved in the ocean. Ocean ecosystems are vast and diverse. These include, for example, polar regions, coral reefs, the deep ocean, mangroves, and kelp forests. These ecosystems are primarily defined by environmental factors and the organisms that live within them.

Marine biodiversity refers to the variety of living organisms in the ocean: microbes, fish, invertebrates, marine mammals, plants, and birds. The biota (the collective term for living organisms) is intrinsically linked to the environmental conditions in which it occurs, and to each other through the flow of energy (food) within the ecosystem.¹⁰

Some oceanic regions are considered biodiversity hotspots due to the richness of species living there. The sea surrounding Timor-Leste is one such region, with the country located within a biodiversity hotspot known as Wallacea, which hosts several globally significant ecosystems and endemic species.

The sea is deeply connected to the history and identity of the Timorese people. Timor-Leste has, since prehistoric times, been a place of convergence for peoples of diverse cultural, linguistic, and ethnic origins. It was by crossing the sea that various ethnic groups from the Asian region and the South Pacific settled in Timor-Leste. In earlier times, many Timorese were coastal fishers, living in close relationship with the sea and nature.

This strong connection with the sea remains part of Timorese culture today, along with the belief in Na'i-Tasi, the God of the Sea. This belief embraces the sea and its creatures, such as fish, crocodiles, turtles, octopuses, sharks, and other marine creatures.

It was also by sea that the first Chinese, Arab, Javanese and, in particular, Portuguese traders arrived in Timor-Leste, with the latter leaving an indelible mark on the nation's future. From this encounter, Timor-Leste inherited distinct cultural and linguistic traits in the region, as well as membership of the Community of Portuguese Speaking Countries (CPLP), whose member states are spread across the world.

Proximity to the sea also makes archipelagic and island states, especially in Asia and the Pacific, natural partners for Timor-Leste, given shared development challenges and ambitions.

In conclusion, the sea holds significant importance in addressing major global challenges, from globalisation to energy, security, environmental protection, and climate change. Timor-Leste, in considering its identity, history and geographical location, cannot help but see the sea as an integral and inseparable part of its future.

It is therefore intended to define public policies and management tools that contribute to the protection, conservation, use and sustainable development of marine resources, maritime, coastal, and inland water areas, while also acting urgently to mitigate environmental degradation, biodiversity loss and climate change.

3.1. Geographic Characterisation

Timor-Leste is a State in Southeast Asia, northwest of Australia and at the eastern end of the Indonesian archipelago.

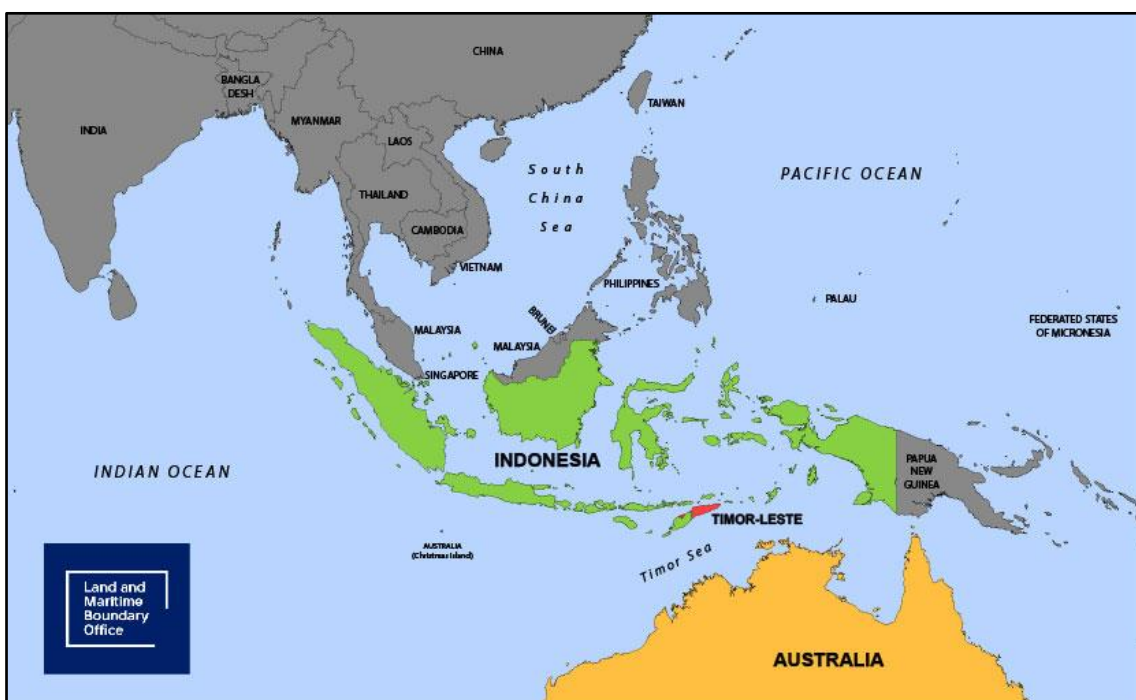


Figure 3: Map of Timor-Leste and the region

The country has a total area of approximately 15,000 km², comprising four areas; the eastern part of the island of Timor (13,954 km²); the Oe-Cusse Ambeno region, a semi-enclave in the Indonesian part of the island, (814 km²); and, the islands of Atauro, (140 km²) and Jaco (11 km²) located respectively to the north and east of the island.

Timor-Leste is bordered to the south by the Timor Sea, which separates it from Australia. The coasts of Timor-Leste and Australia are parallel and lie between 250 and 400 nautical miles apart. The Timor Sea is relatively shallow except for a narrow trench on the edge of the continental shelf, known as the Timor Trough.

There is a significant sedimentary basin, rich in oil and gas reserves, located off the southern coast of the country, known as the Bonaparte Basin. This includes the gas condensate fields of Sunrise and Troubadour (jointly referred to as Greater Sunrise). Further to the southwest is the Bayu-Undan field. North and east of Bayu-Undan, there are other oil and gas fields, including Laminaria, Corallina, Buffalo, Kitan, Elang and Kakatua.

To the east, north and west, Timor-Leste is bordered by Indonesia. A chain of small Indonesian islands, including Pulau Kisar, Leti, Moa, and Lakor, as well as the island and reef of Meatij Miarang, extends to the east of Timor-Leste.

Timor-Leste is bordered to the northwest by the Savu Sea, which separates it from the islands of Sumba, Flores, and Solor, and to the north by the Wetar Strait, which separates the country from the island of the same name.

It is important to highlight the strategic importance of the Ombai and Wetar Straits, together referred to as the Ombai-Wetar Strait, which forms part of a water corridor linking the Philippines and the Banda Sea to the Indian Ocean. This corridor is part of the Indonesian throughflow current system that influences the global climate by transporting warm waters from the Pacific Ocean to the Indian Ocean.

The Ombai-Wetar Strait and the importance of its deep waters must not be underestimated. It is the only trench of its kind within the regional maritime networks and the fourth most strategically important seaway, after the Straits of Malacca, Sunda, and Lombok.¹¹



Figure 4: Map of Timor-Leste with Banda Sea, Savu Sea, Ombai and Wetar Straits and Timor Sea

Timor-Leste is located within the so-called Banda Outer Arc, which comprises the non-volcanic islands situated between the Australian Plate and the Banda Volcanic Arc. Timorese territory is non-volcanic, except for the island of Atauro, which is of volcanic origin, resulting from the collision and convergence of the Australian and Eurasian plates.¹²

From a geographical standpoint, it is also important to highlight that the land border with the Republic of Indonesia is almost fully demarcated, except for two segments in the Oe-Cusse Ambeno region: Citrana, at the north-western extremity, and Bijael-Sunan/Oben at the southern extremity. Permanent maritime boundaries with Indonesia remain undelimited, despite the efforts made by the Timorese State in this regard.

3.1.1. Morphology

Despite its small size, the territory of Timor-Leste does not display uniform morphology. The centre of the country is formed by a mountain range, where the highest elevations are found in the western part. Between the municipalities of Ermera and Ainaro lies Mount Ramelau (or Tata Mai Lau), at 2,960 metres, which divides the country into north and south, and Mount Cblaque at 2,340 metres, the second highest point in the country.

Further to the central-eastern part of the country, between Baucau and Viqueque, are Mount Matebian, which reaches 2,316 metres, and Mundo Perdido, around 1,770 metres, which stands out as an extension of the western mountain range.

The northern coast is characterised by rugged terrain, steep slopes, and an almost complete absence of flat areas. The southern coast, by contrast, has more varied relief, with gentler slopes, extensive coastal plains, and alluvial formations near the shore.

The relief of Oe-Cusse Ambeno is characterised by predominantly low altitudes, below 600 metres, with plains and gently sloping terrain. The highest point is Mount Nipane, at 1,253 metres.

The island of Ataúro features very rugged relief with steep slopes, culminating in its highest point, Mount Manucoco, at 995 metres. The strait separating this island from the opposite coast near Dili, the Wetar Strait, reaches depths of up to 3,500 metres. Its volcanic origin sets it apart from the rest of Timorese territory.

The steep slopes throughout Timor-Leste constrain land use, as 30% of the territory has gradients exceeding 30%, and only 13% of the land has slopes of less than 3%.

3.1.2. Water Resources

Most of Timor-Leste's watercourses originate in the central mountain range of the territory. With a southwest–northeast orientation, most of these rivers flow either northwards or southwards. They are not navigable, not even near their mouths, but they do form a dense hydrographic network.

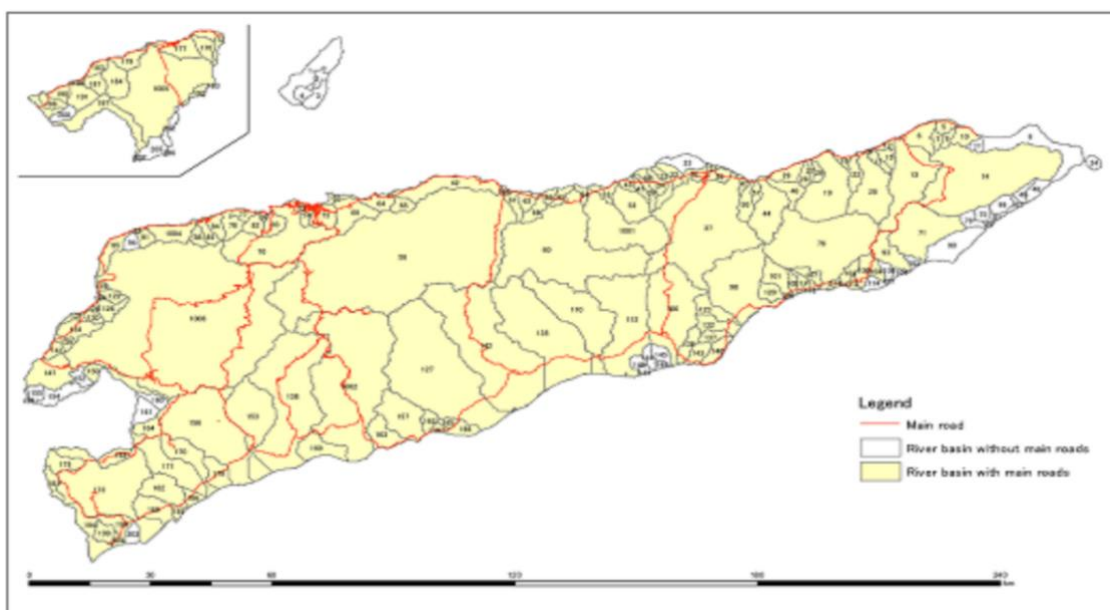


Figure 5: Map of Timor-Leste's river basins (Source: National Directorate of Forest Management, *River Basins, and Mangrove Areas*)

For planning purposes, the country is divided into 12 major Hydrological Units (HUs), including the Oe-Cusse Ambeno enclave and the islands of Ataúro and Jaco. In total, there are approximately 190 river basins in the country, characterised by a predominance of intermittent watercourses (*motas*). Among these, 29 basins have catchment areas larger than 10,000 hectares and are considered major or priority basins. There are also high-priority basins – specifically 14 out of the 29 priority basins –

that hold high value in terms of their ecosystem services, particularly the protection of water sources, soil conservation, biodiversity preservation and the provision of forest resources to communities.¹³

Table 1: Hydrological Units and Major River Basins¹⁴

HU no.	Hydrological Unit (HU)	River Basin	Area (km²)	Length of Watercourses (km)
1	Loes	Loes	2418	116
2	Laclo	Laclo	1297	98
		Comoro	248	33
3	Laleia	Laleia	533	55
		Vemasse	210	48
4	Seical	Seical	489	45
		Uaimuhi	137	31
		Laivai	170	31
		Raumoco	191	30
		Malailada	170	36
5	Vero	Ira Lalara	423	25
6	Lifau & Tono Besi	Tono	499	50
		Besi	338	45
7	Irabere	Namaluto	153	24
		Irabere	341	29
		Bebui	193	33
		Cuha	268	37
8	Tukan & Sahaen	Tuco (Wetuai)	266	36
		Luca	238	40
		Dilor	225	43
		Sahem	294	54
9	Clerec & Belulik	Clerec	288	51
		Laclo do Sul	216	49
		Caraulum	554	52
		Belulik	379	46
10	Mola & Tafara	Mola	277	39
		Loumea	318	36
		Raiketán	111	27
		Tafara	360	45
11	Jaco (Isle)	-	11	-
12	Atauro (Isle)	-	141	-

The hydrographic network is composed of watercourses whose flow is greatly reduced during the dry season and increases considerably during the rainy season (October to December). Most of these water lines are not considered rivers, but rather streams or brooks, referred to in Tetum as *mota*.

Permanent rivers are mainly located in the southern part of the island, where a humid tropical climate prevails, with higher average annual rainfall and a longer rainy season. In this region, the most notable rivers – due to the size of their catchment areas – are the Caraulum, Belulik, Tafara (shared with Indonesia), and Irabere rivers.

The northern slope, encompassing the municipalities of Liquiçá, Dili and Manatuto, is characterised by a dry tropical climate. The hydrographic network here is primarily made up of small, non-permanent water lines, with their sources in the coastal mountain range. The main rivers with permanent flow, along which agricultural activities are concentrated, include the Loes, Laclo, Tono, Seical and Comoro rivers (the latter approximately 33 km in length and the main river crossing Dili).

In Oe-Cusse Ambeno, the most important streams are the Tono (Nono Tono) and Besi (Noel Besi) streams, both of which are partially shared with Indonesia.

Due to their size, the Loes and Laclo river basins are particularly noteworthy, both having areas exceeding 1,000 km². They originate in the island's central mountain range, where the country's highest elevation is found, at Mount Ramelau. The Loes River is the longest in the country (116 km), with part of its basin lying within Indonesian territory. The Laclo River, which rises in Aileu and flows into the sea at Manatuto, is the second longest (approximately 100 km).

During the rainy season, rivers and streams carry intense flows with strong erosive power, transporting sand and sediment to lowland alluvial areas and the coastal zone. These sediment deposits give rise to shallow brackish lagoons, ponds, and swamps. Examples include *Tasi Tolu* (three lagoons) in Dili, the Laga lagoon near Baucau, and the lagoon system of Liquiçá/Maubara.

The largest lagoon in Timor-Leste is located at the eastern tip of the island: the Ira Lalaro Lagoon, approximately 25 km from Lospalos. It lies within the Nino Konis Santana National Park and is rich in biodiversity.

A survey published in 2007, identified twenty-four wetland areas of significant environmental importance that require protection and inclusion in protected areas (see Table 2).¹⁵ These wetland areas may consist of swamps, ponds, estuaries, or mangroves. These vital ecosystems are threatened by sedimentation linked to increased soil degradation, the disposal of liquid and solid waste, and construction along frequently flooded banks.

Nevertheless, wetlands are ecologically crucial. They support a high diversity of flora and fauna; they contribute to flood control by absorbing excess rainwater and reducing flood risk; they filter water by removing sediments and pollutants before they reach rivers, lakes and aquifers; and they play a role in climate regulation, helping to moderate climate and absorb carbon.

Moreover, these areas provide water, timber and natural resources used by local communities. They offer suitable environments for fishing and subsistence agriculture, and they also contribute to the promotion of tourism, as well as to the advancement of education and scientific research.

There are also natural springs with sulphurous water and therapeutic properties in Timor-Leste, the most well-known being those of Marobo, near Bobonaro. During the rainy season, numerous waterfalls appear, which disappear in the dry season. However, some remain permanent along the road linking Ermera to Bobonaro, such as the Mota Bandeira waterfall and others in the Ermera area.

Table 2: Inland Waters and Wetlands¹⁶

Municipality	Name	Classification and Habitats	Area (Ha)
1. Aileu	Seloi	Lagoon (freshwater marsh)	29,10
	Lagoa Leholuli		
	Mota Remexiu		
2. Ainaro	Mota Maului		
	Mota Tanhuk		
	Bikantiden	Lagoon (brackish water)	16,70
	Saran-Heu	Lagoon (fresh water)	2,37
3. Baucau	Seical	Estuary (mangrove and mudflat)	48,90
	Laga	Saltwater lake (beach)	
	Lake Badotula		
	Lake Ogabuilo		
	Lake Masin Fatuk		
4. Bobonaro	Ribeira de Be'e Malae	Saltwater lagoon, estuary	94,19
	Leometik (Batugade)		
	Mota Fatumolin (Atabae)		
	Marobo	Sulphurous waters	
	Mota Nunura		
5. Covalima	Kora	Lagoon	
	Mauhau	Lagoon	
	Haok	Lagoon	
	Lebomulua	Lagoon	
6. Dili	Tasitolu	Saltwater lakes (mudflat and beach)	
	Estuário de Comoro	Stream, beach, gravel river channel	24,80
	Mangal Hera	Mangrove, mudflat, sandbanks	
	Mangal Areia Branca	Mangrove, mudflat, and beach	
	Tibar	Mudflat, mangrove, and fishpond	
	Orla Marítima de Díli	Beach and estuary	
	Esgotos de Díli	Treatment lagoons	
7. Ermera	Eraulo	Freshwater marsh	
	Magapu (Atsabe)		
	Gleno or Lauveli River		
8. Lautém	Iralalaro	Freshwater lagoon (swamp and stream)	4.831,64
	Costa de Lore	Beach and exposed reef	
	Raumoko	Estuary (beach and exposed reef)	
	Sica		

	Vero	Stream (beach and exposed reef, small estuary)	
	River Irasiquero		
	Lake Utchanira		
	Lake Umunira		
	Ilha de Jaco	Beach and exposed reef	
9. Liquiçá	Loes	River (stream, estuary, and mudflat)	241,800
	Mangal de Tibar	Mangrove	
	Maubara	Saltwater lagoon	
10. Manatuto	Laclo	Stream	129,700
	Lake Wilisair		
	Lake Lamessana		
	Mota Laleia		
	Mota Sumasi		
	Mota Wekore		
	Mota Liheu		
	Mota Lacló		
11. Manufahi	Modo Mahut	Freshwater lake	118,35
	Sue		
	Cier		
	Mota Laclo Sul		
	Wetanas		
	Welada	Freshwater lake	
	Welenas	Freshwater lake	
	Lake Lamussa		
	Lake Lada		
	Mota Sahe		
12. RAEOA	Tono	Stream	49,90
	Besi	Stream	33,80
13. Viqueque	Irabere	Beach and estuary	
	Dilor		
	Luka River		
	Loihuno		
14. Ataúro			

There are three main types of hydrogeological units in Timor-Leste: localised aquifers (typically found in mountainous regions); intergranular aquifers (with greater water storage capacity and productivity); and fissured karst aquifers (limestone formations with high groundwater productivity).

Thus, the availability of groundwater varies across the territory, depending not only on geology, but also on rainfall patterns and the recharge rate of each region. Most aquifers have medium productivity, with high productivity found in the Hydrological Units of Laleia and Vero, and in some small areas along the south coast. Areas with low productivity are mainly located inland.

According to studies conducted by the Asian Development Bank (ADB) in 2004, the Seical and Loes hydrological units are those with the greatest irrigation water needs, while the Laclo and Loes units

present the highest demand for water supply to the population, mainly due to population concentration. In fact, there are areas of the country that face water scarcity, particularly during dry years.

As for water in Timor-Leste more broadly, there are no major sources of contamination, except in urban or rural areas where the lack of sanitation and solid waste management compromises water quality through the presence of contamination hotspots caused by various infectious agents responsible for disease. These hotspots are mainly associated with the drainage and infiltration of rainwater, which carries untreated wastewater and contaminates water sources, particularly groundwater.

This situation is further exacerbated by the intermittent nature of the watercourses, which can become torrential during the rainy season, and by ongoing deforestation, which is degrading or even rendering water use unfeasible. In coastal areas, particularly in the north of the country, saltwater intrusion must also be noted, as this may become a fundamental problem for the water supply of communities and economic activities, especially agriculture and livestock.¹⁷

3.1.3. Forest Resources

Timor-Leste has a significant diversity of forest ecosystems that vary according to geography. Dry forests predominate in the northern region, except for the easternmost part of Lautém, where there is a higher density of vegetation. In the south of the country, low-altitude humid forests predominate, interspersed with cultivated areas and coastal forests.

Although about 50% of the national territory is covered by forest areas, Timor-Leste experienced rapid loss of vegetation cover, especially between 2003 and 2012, when dense forests decreased by 35.3% and areas of sparse vegetation decreased by 2.6%. The main causes include burning for agriculture, unsustainable logging and firewood collection, as well as poor agricultural practices. This degradation results in biodiversity loss, increased erosion, landslides and growing environmental risks for the population.

It is important to emphasize that environmental degradation disproportionately affects women, people with disabilities and the elderly, who depend on the forest for their livelihoods. As such, sustainable management and climate adaptation strategies that take gender needs into account should be included, promoting the active participation of women and young people in environmental management and decision-making, ensuring equitable benefits and the preservation of natural resources.

Aware of this scenario, to structure a strategic response for this sector the Government has established priority measures for 2023-2028. These include:

- Reforestation and agroforestry – continued implementation of the national forest conservation plan, including sustainable reforestation and agroforestry practices, inventory and mapping of forest species throughout the territory.
- Consolidation of the legal framework – enforcement of robust frameworks, including the Basic Forest Law, for the management and protection of forest resources.

- Investment in the forestry sector – promotion of strategic forestry investments, with a focus on identifying high value-added markets and products, such as certified timber, sandalwood essential oil and bamboo.
- Forestry research institute – creation of an institution dedicated to forestry research and agricultural development to support evidence-based policies.
- Community and permanent nurseries – expansion of forest nursery centres, providing technical support and seedlings to micro-industrial communities and local carpentry workshops.
- National planting target – commitment to plant at least 1 million trees per year throughout the country.
- Promotion of bamboo – implementation of a policy for the commercialisation of bamboo as a strategic resource and continued investment in its production, recognizing its ecological role in erosion control and its economic value.
- Professional forestry training – promotion of technical and administrative training for professionals in the sector, with a view to modern and efficient resource management.
- Sustainable intersectoral management – strengthening coordination with other sectors in the integrated management of natural resources and implementation of the National System of Protected Areas.
- Mangrove rehabilitation – rehabilitation of mangroves along the coast to protect ecosystems and coastal communities.
- Watershed management – promotion of community-based watershed management with a focus on soil, forest and water resource conservation.
- Equipment modernization – acquisition and maintenance of specialised machinery to support surveillance, firefighting and planting activities.
- Integrated management of parks and botanical gardens – approval and implementation of integrated management plans for the “Nino Konis Santana” and “Xanana Gusmão” national parks and the “Francisco Xavier do Amaral” botanical garden.

Historical data reveal that mangrove forests have suffered dramatic losses. In 1940, the mangrove area in Timor-Leste totalled 9,000 hectares. By 2008, the areas had decreased to only 1,802 hectares, representing a loss of 80%, with 40% of coverage lost between 2000 and 2008.

Species such as *Avicennia*, *Rhizophora*, *Bruguiera*, and *Sonnerattia* play a vital role in protecting the coastline and the reproduction of marine species.

Overexploitation and unsustainable use of natural resources, along with habitat degradation and fragmentation, are the main drivers of biodiversity loss in Timor-Leste. This is caused primarily by deforestation, relentless extraction of sand and stones from rivers, unsustainable farming practices,

and land conversion for other uses. Pollution, invasive alien species, and climate change are also contributing factors to biodiversity loss.²⁰

3.1.4. Coastal and Marine Resources

The habitats along Timor-Leste's coastline, which spans approximately 800 km, are influenced by human settlement and vary according to rainfall, local geology and topography, river discharges, and regional oceanographic characteristics.

Wave activity generated by wind on the northern coast is of low amplitude, almost always below 1 metre and for most of the year remaining under 0.5 metres. On the southern coast, while wave height is still low, it is greater than that on the northern coast. Further studies are needed to quantitatively substantiate this observation.²¹

The surface current in the Timor Sea flows south-westwards for most of the year (October to March), while the current in the north-eastern part of the Timor Sea moves in a north-easterly direction²².

Aside from the presence of hydrocarbons in the waters off the country's southern coast, marine resources are primarily of economic relevance for fisheries and tourism development.

In terms of marine biodiversity conservation, the following biotopes (areas within an ecosystem with uniform environmental conditions that support a specific community of living organisms) are particularly noteworthy.²³

- Oceanic and subtidal marine environment (the coastal zone situated below the low tide level, always submerged), which includes pelagic water columns, deep seabeds, rocky seabeds in shallower areas, sandy and muddy bottoms, seagrass beds, and coral reefs;
- Intertidal zones (the coastal area between the mean high tide and mean low tide levels), which include rocky, sandy, and muddy areas as well as mangroves. These mangroves protect coral reefs from erosion and sedimentation and are important breeding grounds for various species of fish and crustaceans;
- Coastlines, including sandy beaches, dunes, cliffs, limestone outcrops, estuaries, and brackish lagoons;
- Littoral zones (which may extend several kilometres inland from the coastline), including drylands, natural forests and wetlands;
- Seagrass and mangrove habitats of the northern coast.

3.1.5. National Maritime Space

Within the framework of international law of the sea, the maritime territory over which Timor-Leste exercises sovereignty and jurisdictional rights is considerably larger than its land territory.

After the delimitation of maritime boundaries between Timor-Leste and Australia, Timor-Leste's Exclusive Economic Zone (EEZ) in the Timor Sea has a size of 58,500 km². When the maritime boundary delimitation process with Indonesia is concluded Timor-Leste's maritime boundary area could expand by an additional 27,000 km².

Timor-Leste's coastline stretches for approximately 800 km, which enables the development of key economic activities in coastal and land-sea interface zones, such as aquaculture, seaweed farming, bivalve cultivation, and pearl farming, among other potential ventures.

The total national maritime space could reach 103,800 km² (minimum area), with a further 30,500 km² still under dispute with Indonesia. Part of this maritime area corresponds to Timor-Leste's territorial sea (14,510 km²), excluding the disputed portion (an additional 996 km²).

Two islands in Timor-Leste stand out for their natural beauty and biodiversity: Ataúro and Jaco.

Jaco is located at the eastern tip of Timor-Leste. It is separated from the island of Timor by a narrow channel, which can only be crossed by small boats. Jaco has an area of 11 km², and its highest elevation is approximately 100 metres.

This island is uninhabited as it is considered sacred by the Timorese people. Visiting is permitted only during the day, and overnight stays are not allowed. In addition to its natural beauty, with pristine white-sand beaches, Jaco is home to several endemic bird species, including the pink-headed imperial pigeon and the fawn-breasted whistler. It has been recognised as an Important Bird and Biodiversity Area by BirdLife International.²⁴

Due to its rich biodiversity, Jaco was included in the Nino Konis Santana National Park – the first national park in Timor-Leste's National Protected Areas Network – established by the Government on 1 August 2007 and inaugurated a year later. This park, which covers a total area of 1,236 km², nearly half of which comprises a marine area rich in coral formations, will be submitted for consideration as a UNESCO Biosphere Reserve. The waters surrounding Jaco are full of coral and marine fauna and form part of the Coral Triangle. In addition to a large, forested region, the Nino Konis Santana National Park also includes the Ira Lalaro lagoon.

The island of Ataúro, which lies approximately 25 kilometres from Dili and covers an area of about 140 km², is small and geologically unstable, with steep terrain subject to frequent landslides with limited access to freshwater, especially during the dry season. The island's freshwater sources are located about 2 km north of Berau, with small reservoirs near Macadade and the eastern slopes of Mount Manucoco, the highest point on the island at 995 metres.

The waters around Ataúro have been described as containing one of the most significant marine biodiversity in the world in terms of coral reef and reef fish species.²⁵ This presents enormous potential for fishing activities, maritime tourism, and scientific research. Applying the Coral Fish Diversity Index (CFDI) methodology, the area revealed the presence of reef fish, coral reefs, mangroves, seagrass beds, as well as habitats for dugongs and sea turtles.

The designation of Ataúro as a marine protected area is therefore a priority for the Government, as set out in the *Strategic Development Plan 2011-2030*. In that plan, Ataúro is identified for protection with the aim of conserving its valuable ecosystems and safeguarding the well-being of its inhabitants.

The territory of Timor-Leste comprises the land territory and the maritime territory defined by national boundaries, as well as its airspace. The law establishes and defines the extent and limits of the National Maritime Space.²⁶

The law of the sea recognises the rights of States over their respective maritime zones, including the right to exploit the resources of the water column, the seabed, and the subsoil. Alongside these rights, however, comes the responsibility of each State to care for its seas, including the conservation of the marine environment and living resources in its EEZ and in the high seas.

3.1.5.1 Maritime Boundaries

Timor-Leste relied on the international system to secure its independence and is therefore a strong advocate of international law and the rules-based order. Timor-Leste upholds that all States must comply with their obligations under international law and respect the rights of other States, based on the principle that all States – whether large or small, rich, or poor – are equal before international law.

UNCLOS, also known as the ‘Constitution of the Ocean’, identifies and distinguishes between maritime areas under national jurisdiction—namely, the territorial sea, the continental shelf and the EEZ—and those beyond such jurisdiction, such as the high seas and the Area (the seabed, the subsoil thereof and the seabed and subsoil beyond the limits of national jurisdiction), which are areas not subject to appropriation by States and in respect of which all States exercise a specific set of rights and freedoms.

Coastal States do not have full or absolute sovereignty over the territorial sea, the EEZ or the continental shelf; the rights they may exercise in each of these areas vary, as do the uses and activities that may take place there and to which they cannot object, such as, for example, innocent passage and freedom of navigation, as the case may be, the laying of submarine cables and ducts, or marine scientific research.

The national maritime space of Timor-Leste includes:

Territorial sea: 12 nautical miles (M) from the baselines;

Contiguous zone: 24M, where Timor-Leste may take the necessary supervisory measures to prevent infringements of customs, fiscal, immigration or sanitary laws and regulations in its territory or territorial sea, and to repress infringements of laws and regulations in its territory or territorial sea;

Exclusive economic zone (EEZ): 200M, where Timor-Leste exercises sovereign rights for the purposes of exploration and exploitation, conservation and management of the natural resources, living or non-living, of the waters overlying the seabed, the seabed and its subsoil and with regard to other activities aimed at exploring and exploiting the zone for economic purposes, such as the production of energy from water, currents and winds; and also jurisdiction with regard to (i) the placement and

use of artificial islands, installations and structures; (ii) marine scientific research; and (iii) the protection and preservation of the marine environment; and

Continental shelf up to 200M: where Timor-Leste exercises sovereign rights in relation to the exploration and exploitation of sedentary species and mineral and other non-living natural resources existing in the seabed and subsoil.

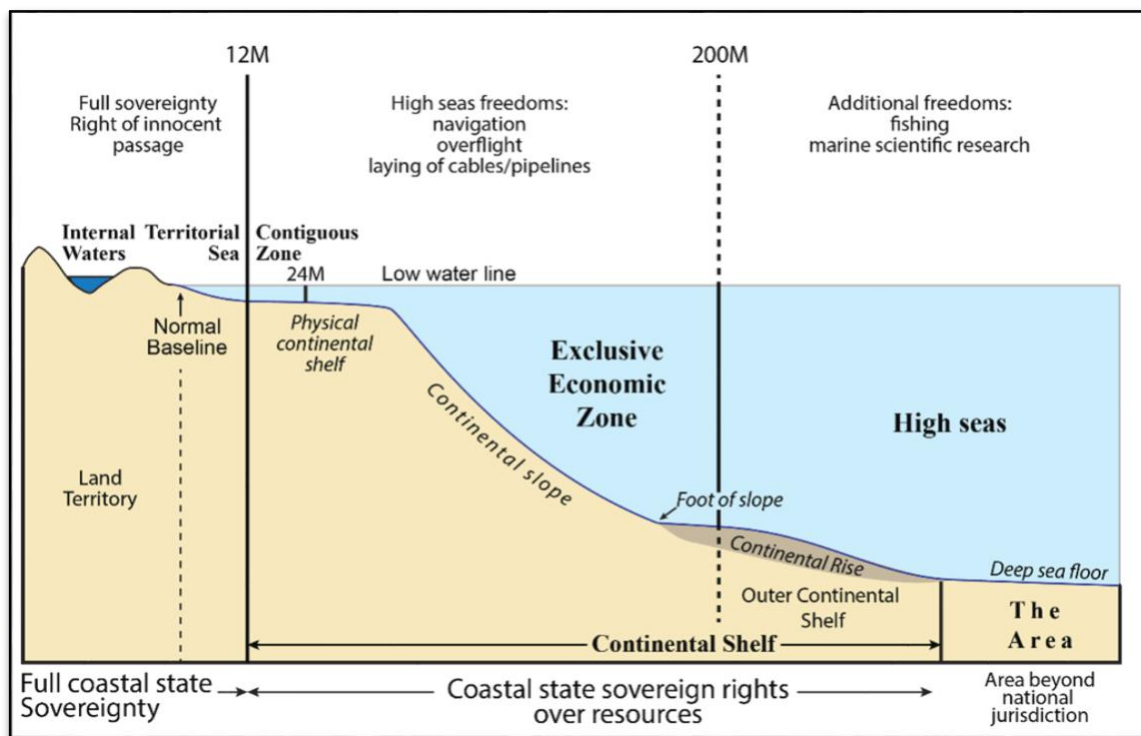


Figure 6: Maritime Zones in accordance with UNCLOS

Following the compulsory conciliation process under UNCLOS, initiated by Timor-Leste in April 2016, Timor-Leste and Australia signed a historic maritime boundary delimitation treaty at the United Nations headquarters on 6 March 2018. The Maritime Boundary Treaty established, for the first time, definitive maritime boundaries between Timor-Leste and Australia in the Timor Sea.

The Maritime Boundary Treaty was, in many respects, an extraordinary achievement. Firstly, it resulted from the first-ever use of the compulsory conciliation procedure under UNCLOS. Secondly, the Parties were able to overcome a long, complicated, and difficult history to close the “Timor Gap” and reach agreement on permanent maritime boundaries, thus peacefully resolving a longstanding dispute. This was possible by setting aside the contentious question of ownership of the Greater Sunrise field, and through the establishment of provisional boundaries that would only be adjusted once the field is fully depleted. Thirdly, the agreement established a special regime for Greater Sunrise, enabling joint management and development of the field, with most of the revenues allocated to Timor-Leste.

Under the agreement, the resources of Greater Sunrise are shared between Timor-Leste and Australia. As most of the Greater Sunrise field is in Timor-Leste’s maritime space, most of the revenues will also accrue to Timor-Leste.

The agreed maritime boundaries place all resource fields from the former Joint Petroleum Development Area (JPDA) within Timor-Leste’s continental shelf. This means that, unlike under previous revenue-sharing agreements, all future revenues from the Bayu-Undan and Kitan fields will be transferred entirely to Timor-Leste. To the west, the agreed seabed boundary extends further west than that of the former Joint Petroleum Development Area, thereby transferring the Buffalo oil field from Australia to Timor-Leste.

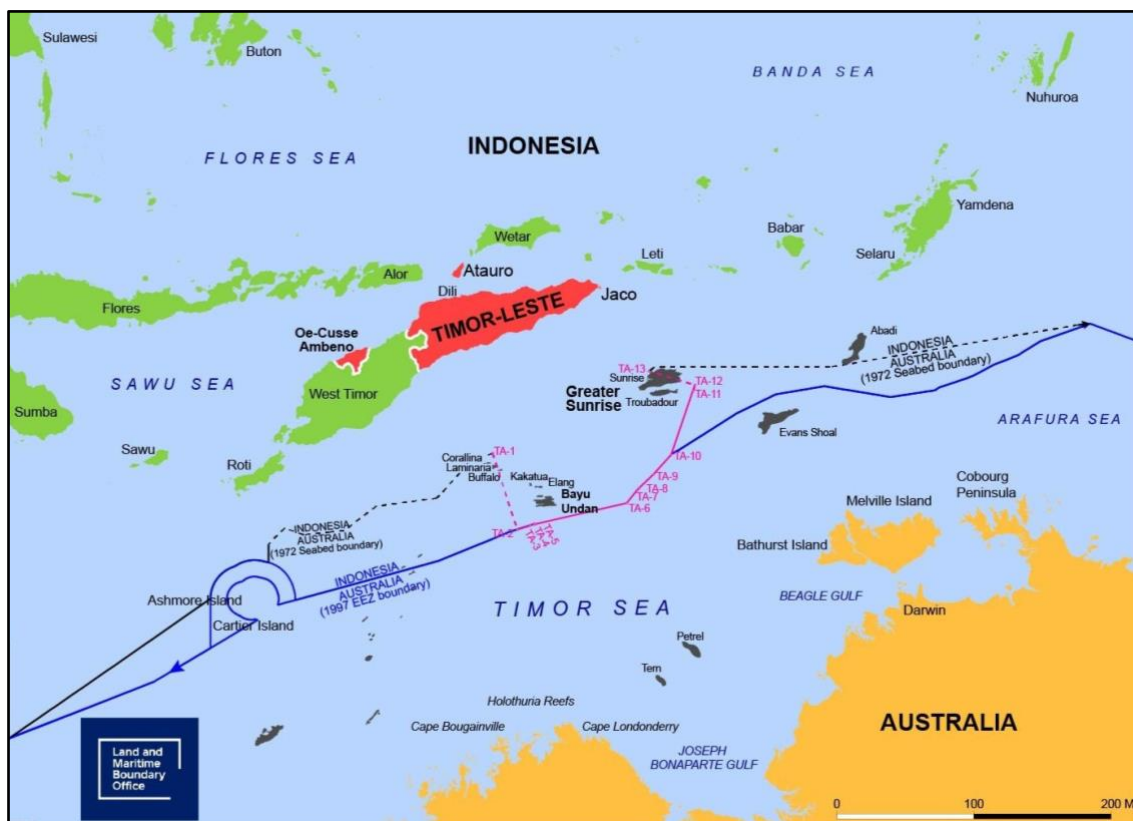


Figure 7: Composition of Territory and Sovereignty Limits

3.1.6. Climatic Characterisation

Climate and variable weather patterns pose significant threats to Timor-Leste, whose population faces rising temperatures, extreme rainfall events, and sea level rise – all of which exacerbate the risks of flooding, storms, and landslides, with additional negative impacts on food security.

The country is among the most vulnerable in the world to natural disasters, due to its elevated risk of earthquakes, tsunamis, cyclones, and heavy rainfall, combined with fragile infrastructure.

Timor-Leste is predominantly agrarian, and food security remains a major challenge due to low agricultural yields and post-harvest losses – factors that are likely to be worsened by rising temperatures, increased rainfall intensity, and sea level rise. The growing concentration of the

population along the north coast consequently increases the number of people and amount of infrastructure at risk from flooding and storm surges associated with rising sea levels. Overall risk is further influenced by how climate change affects the El Niño Southern Oscillation, which drives significant drought and flood events across the country.²⁷

Timor-Leste's tropical climate, influenced by the Western Pacific monsoon and mountainous topography, shapes its temperature and rainfall patterns. The monsoon brings a marked wet season from December to May, followed by a dry season from June to November. The rainy season is longer in the south (seven to nine months). Annual rainfall varies widely across the country, from 565 mm in Manatuto on the northern coast to 2,837 mm in the central-western mountains. Rainfall levels are higher in the south and decrease towards the north, with some northern areas receiving little to no rainfall for as much as eight months of the year.²⁸

The country's climate is characterised by significant year-to-year variability in rainfall, as well as by intense rainfall events and periods of drought. The average annual temperature ranges from 27°C at sea level to 15°C in the mountains. Seasonal temperature variation is small, with July being the coolest month and October the warmest. The El Niño Southern Oscillation has a strong influence on climate, with El Niño years bringing drier conditions and shorter wet seasons, while La Niña years bring increased rainfall, even during the dry season.²⁹

The *Strategic Development Plan 2011-2030* provides guidance for the national response to climate change, and various instruments have since been developed, including the National Adaptation Programme of Action, which aims to make the country more resilient to climate change.

The Government of Timor-Leste is currently updating its 2022 Nationally Determined Contribution (NDC), for the period 2026–2035, which reinforces the country's commitments under the Paris Agreement for the period 2022–2030, to be submitted to the United Nations Framework Convention on Climate Change (UNFCCC).

The NDC aims to integrate climate risk management into all sectoral policies, promote low-carbon development, strengthen adaptation and resilience, and seek international support for these efforts. The NDC addresses the need for adaptation and mitigation, with plans and targets in sectors such as energy, transport and agriculture, and considers the benefits of ecosystem-based adaptation.

It is also worth noting that Timor-Leste officially assumed the chairmanship of the Least Developed Countries (LDCs) group during the group's coordination plenary session at COP30, held in November 2025 in Brazil. Timor-Leste will chair this group between 2026 and 2028, under the UNFCCC.

Timor-Leste will represent this bloc of 44 countries, considered the most vulnerable to climate change in international climate negotiations, and convey and advocate for the needs, concerns and lived realities of LDCs on the international stage, including the presentation of unified positions, climate finance and ensuring that these countries' priorities are reflected in global climate decisions.

Timor-Leste's leadership of the group also presents an opportunity to strengthen the country's voice on the global climate stage and to consolidate national capacity in climate diplomacy, whilst creating opportunities for Timorese experts, young people and institutions to contribute to global climate action.

Table 3: Potential impacts of Climate Change³⁰

PARAMETERS	CHANGES
Temperature	Global increase with no significant seasonal variation
	Episodes of extreme storms are expected to become more intense and prolonged
Precipitation	Average precipitation levels are expected to increase
	The dry season is expected to become drier
	Episodes of extreme rainfall are expected to become more intense but less frequent
Sea Level Rise	Increase in accordance with global projections
Tropical Cyclones	Episodes are expected to decrease in frequency and duration, but become more intense in nature
Ocean	Expected to become more acidic

Tropical Cyclone Seroja, which struck Timor-Leste in April 2021, served as a test case for the impacts of climate change. It coincided with a period in which the country, like all others, was already facing a global pandemic. Historically, cyclones have rarely affected Timor-Leste, but climate change is shifting this trend.

Like other Southeast Asian countries and Pacific Island nations, Timor-Leste is already experiencing the effects of climate change. As an island nation, it ranks among the most vulnerable. Projections from the ADB and the WB in 2021 for Timor-Leste are concerning.³¹

The country has seen more intense rainfall and an increase in flooding, which is particularly problematic in the capital, Dili, due to a drainage and sewage system that remains inadequate for the needs of an urban population growing steadily. In addition, the shifting timing of the rainy season is disrupting harvest cycles, contributing to food insecurity. Timorese communities living along the coast are vulnerable to sea level rise, which threatens livelihoods – meaning that future impacts will be not only environmental but also economic.³²

Finally, it is important to highlight that CO₂ emissions are one of the main contributors to global warming and climate change. These emissions are linked to a country's economic activity, as industrial, transport, and energy generation processes involve the burning of fossil fuels. However, according to 2022 data, Timor-Leste produced 0.573 megatons of CO₂ emissions. Timor-Leste is therefore categorised among the low-emission countries, according to the global CO₂ emissions ranking.³³

This means that, despite an increase in emissions as development progresses in Timor-Leste, the country's annual cumulative emissions represent less than 0.003% of global emissions.³⁴

3.2. Demographic Characterisation

From a demographic perspective, according to the results of the 2022 Census, the population of Timor-Leste is estimated at approximately 1,341,737 people, with about one quarter of the population residing in the capital, Dili (around 324,000 inhabitants). Ermera follows, with around 138,000 inhabitants (10.2%), Baucau, with approximately 133,000 (10%), and Bobonaro, with around 106,000 (7.9%). The least populated region of the country is Ataúro, with 10,302 inhabitants (0.7%).

Among all Southeast Asian countries, Timor-Leste has the highest annual population growth rate – 1.8% between 2015 and 2022. In addition to being one of the youngest countries in the world, Timor-Leste has a very youthful population, with around 65% under the age of thirty, and only 6% over the age of sixty-five. The 2022 Census also indicates that the unemployment rate is higher among the youth.

All municipalities have experienced population growth, with Dili seeing the most significant increase, at an annual growth rate of 2.7%. It is also the only municipality to have gained population through internal migration from other municipalities.

According to the same report, 492,752 people live in urban areas, while 847,682 live in rural areas. The urban population represents 36.8% of the total population of Timor-Leste. The most urbanised municipality is Dili, where 95.8% of the population lives in urban zones. All other municipalities are predominantly rural. Ataúro, for example, is entirely rural.

It is also important to note that around 30% of the Timorese population lives in coastal zones, particularly in Ataúro, Liquiçá, Oe-Cusse Ambeno, Covalima, and Viqueque, which are the main municipalities in terms of coastal population. According to the National Coastal Vulnerability Assessment and Development of an Integrated Strategic Plan for Coastal Management and Adaptation for Timor-Leste (UNDP, 2018), this percentage of the population increases to 66% if coastal zones and plains below an altitude of 500 meters are considered.

3.2.1. Administrative Division of the Territory

The territory of the Democratic Republic of Timor-Leste is divided into twelve municipalities, the Special Administrative Region of Oe-Cusse Ambeno, and Ataúro.

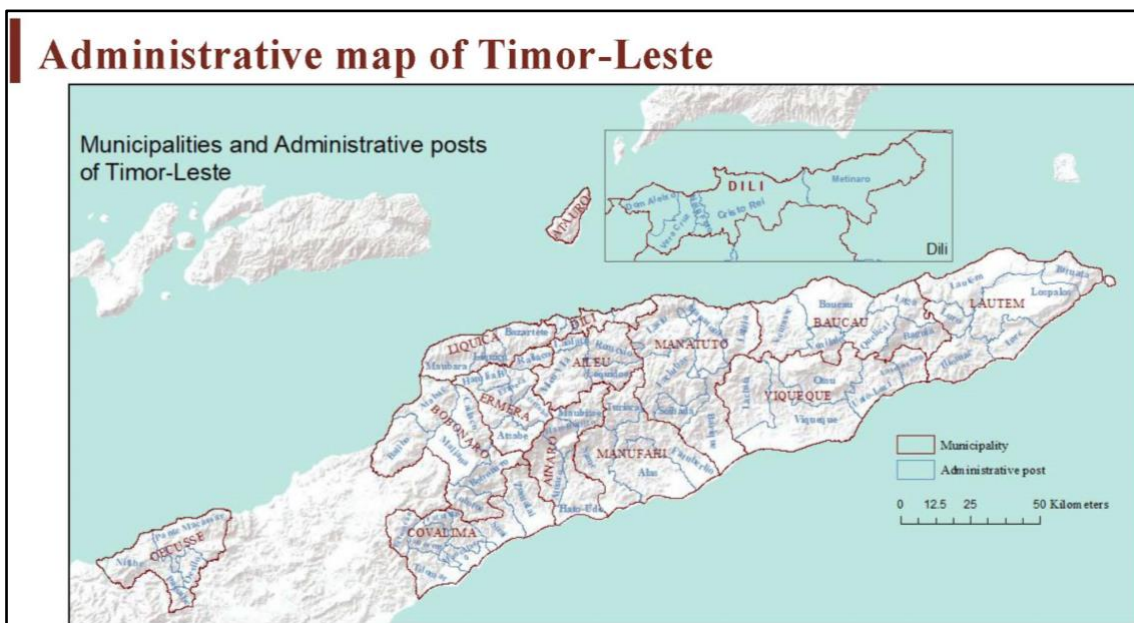


Figure 8: Administrative Map of Timor-Leste (2022 Census)

The 12 municipalities (Aileu, Ainaro, Baucau, Bobonaro, Covalima, Dili, Ermera, Lautém, Liquiçá, Manatuto, Manufahi, and Viqueque) and Ataúro serve as administrative divisions for the organisation of local State administration and form the territorial basis for local authorities in the Democratic Republic of Timor-Leste³⁵.

Of the fourteen first-level administrative divisions, only two – Aileu and Ermera – do not have access to the coast.

The first-level administrative divisions are subdivided into sixty-nine administrative posts, which constitute the second-level territorial divisions. These, in turn, are divided into 461 sucos and 2,233 aldeias (villages)³⁶.

3.3. Socioeconomic Characterisation

Since the restoration of independence on 20 May 2002, Timor-Leste has made considerable progress in its transition from fragility to resilience, establishing itself as a peaceful, free, and democratic country with an open and growing economy.

Timor-Leste, due also to its geographical location, is vulnerable to disasters triggered by natural causes, climate change, and external economic shocks. Its economy is driven by public expenditure funded by petroleum and gas revenues. Therefore, economic diversification and the development of key sectors through the sustainable use of its coastal and marine resources are priorities to the Government.

According to the “Poverty in Timor-Leste” report (2014), produced by the Ministry of Finance with technical support from the WB, although poverty levels remain high, improving living standards has had some progress. The proportion of Timorese living in poverty, measured by the national poverty line, fell from 50% in 2007 to an estimated 42% in 2014.³⁷ More recently, according to the ADB the proportion of the employed population living on less than \$2.50 per day was 29.7%, based on 2023 data.³⁸

Given the relatively low level of employment in the petroleum sector, total GDP is not the most appropriate indicator for measuring Timor-Leste’s economic performance. Instead, it is more useful to monitor performance using non-oil GDP, which more accurately reflects the real impact of economic changes on the population of Timor-Leste.

The following chart shows the values for economic growth based on non-oil GDP between 2019 and 2023, along with projections for 2024 to 2029, as presented in the 2025 Budget Book.

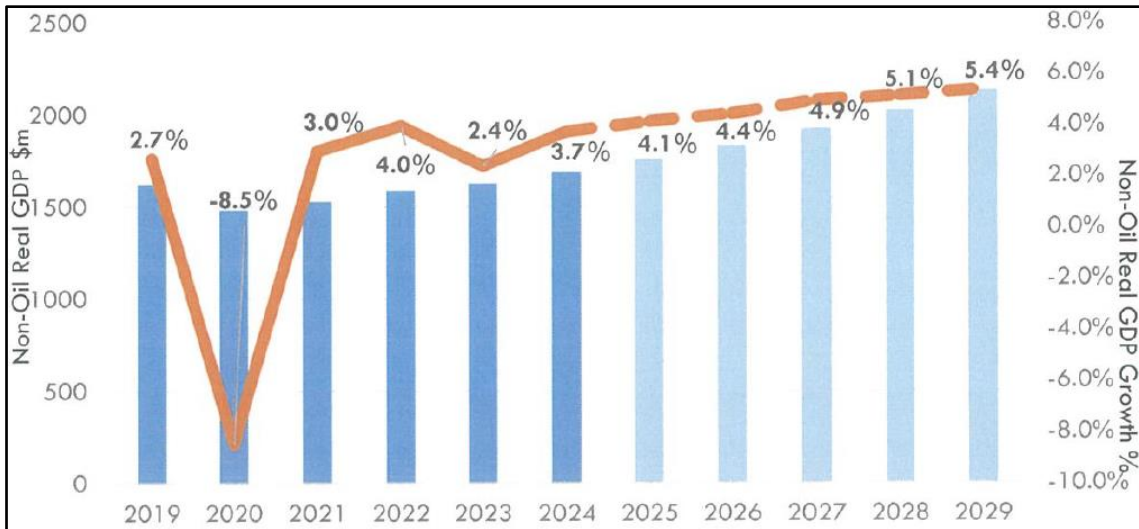


Figure 9: Economic growth in Timor-Leste (2025 Budget)

In 2024, GDP is projected to increase by 3.7%. This forecast is based on strong public expenditure execution in the final quarter of the year and continued development of the private sector, driven by increased public activity and the arrival of tourists. In 2025, GDP is expected to grow by 4.1%, with growth driven by an increase in public spending. Regarding inflation, the consumer price rate between January 2024 and January 2025 was -0.2%.

The following table summarises the relative contribution of the petroleum and non-petroleum sectors to total GDP over the past five years.

Table 4: Petroleum and Non-Petroleum Sector

Petroleum Sector Share of Total GDP (%)	2019	2020	2021	2022	2023
Total GDP (%)	100	100	100	100	100
Petroleum Sector %	17.3	42.6	43.9	26.5	8.2
Non-Petroleum Sector %	82.7	57.4	56.1	73.5	91.8

Although Timor-Leste's ocean economy accounts for approximately 87% of GDP, this derives primarily from offshore oil and gas.

The management of these resources has been notably responsible, with particular emphasis on the establishment of the Petroleum Fund in 2005. The creation of this fund was a key investment strategy that ensured transparency and sound management of Timor-Leste's petroleum resources. It is an essential reference point in the historical and cultural characterisation of the nation, as successive Timorese governments have worked to instil a culture of transparency and accountability in the management of national natural resources.

The Petroleum Fund does not flow directly into the General State Budget, despite being its main source of revenue. This structure helps prevent macroeconomic instability, as withdrawals from the Fund are based on what is sustainable in the long term, rather than short-term fluctuations in petroleum revenues. Thus, in addition to ensuring macroeconomic stability and avoiding the so-called "resource curse," the fund has been used to invest in national basic infrastructure and in key development sectors such as education and health.

Related to this, it is important to recall that in 2007, Timor-Leste joined the Extractive Industries Transparency Initiative (EITI). With only a decade of independence at the time, the country developed a world-class system for revenue management, becoming the first country in the Asia-Pacific region – and the third in the world – to be granted compliance status with the Initiative in July 2010, in terms of revenue reporting and transparency in the oil and gas sector.

Furthermore, in 2011, with the amendment of the Petroleum Fund Law, following a long and rigorous public consultation process, it became possible to implement a diversification strategy for the Petroleum Fund, which has delivered an important and valuable return for the Timorese state.³⁹

In terms of economic activities, agriculture remains the main livelihood for most of the population, primarily through subsistence crops such as maize, rice and coffee, which also have export potential. However, agricultural practices remain largely traditional, limiting the efficiency and productivity of the sector.

Coastal livelihoods are primarily derived from fishing, including large tuna, several species of pelagic fish in open waters, a wide variety of coral reef and mangrove fish – including those found in estuaries and, to some extent, rivers and inland lakes. Mangrove coastal areas and seaweed beds also support local populations with marine species such as fish, molluscs, and crustaceans.

Coastal communities also sustain a subsistence economy based on salt production, tourism, and ecosystem provisioning services such as bamboo, mangroves, and honey, in addition to fish. However, with well-coordinated and effective policies, tourism, fisheries, and aquaculture could become key drivers of job creation, environmental sustainability, and food security.

The most recent study on the national ocean-based economy by the Ministry of Agriculture and Fisheries and the Partnerships in Environmental Management for the Seas of East Asia (PEMSEA), used data from 2015. This study has not yet been updated, and current GDP statistics do not provide sufficient information to accurately assess the contribution of the marine sectors to the country's economic growth – an issue to be addressed from 2025 onwards.

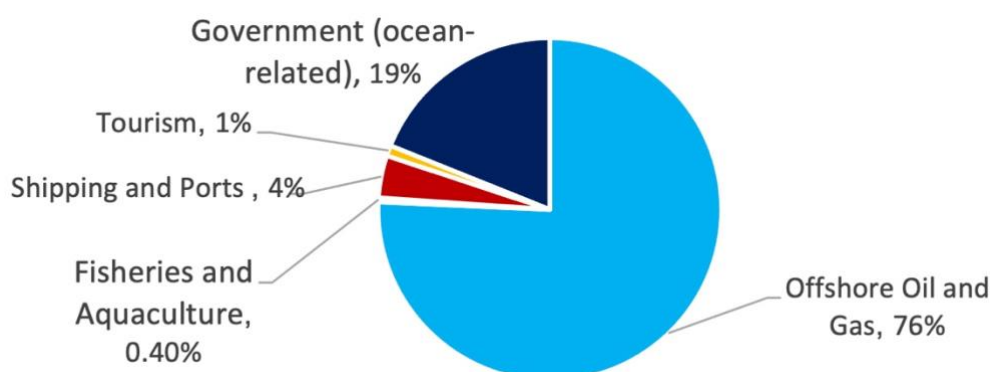


Figure 10: Timor-Leste's Ocean-Based Economy, 2015⁴⁰

3.3.1. Tourism

Although tourism is the third most relevant sector for the national economy, it represents only 2% of Timor-Leste's GDP (2024 data). Nonetheless, the country's marine and coastal conditions offer significant potential for the development of ecotourism and related activities, such as recreational fishing, diving, and whale watching. The Nino Konis Santana National Park, the country's first protected area, and Ataúro Island, which will also be protected, have considerable tourism potential, particularly within the scope of ecotourism.

In 2017, the Government approved the National Tourism Policy 2030 – a call for collective action to achieve Timor-Leste's true potential as an international tourist destination with bold and dynamic growth. The policy has five thematic principles: Priority; Prosperity; People; Protection; and Partnership. The policy set a strategic goal for Timor-Leste to receive 200,000 international tourists per year by 2030, with US\$150 million in annual revenue and direct employment for 15,000 workers.

To boost Timor-Leste's image, the Government has approved a destination branding campaign, "Explore the Undiscovered". The campaign will promote Timor-Leste in the global market and encourage the inclusive development of the sector. The campaign logo is a representation of the country's national heritage featuring an Uma-Lulik (sacred house) unique to Timor-Leste and a rising sun synonymous with the country's name.

In 2024, international arrivals grew by 26% to 26,912, compared to 2023, when there were only 21,370 arrivals, reflecting renewed confidence in the post-pandemic period and contributing to the expansion of services such as hospitality and retail.⁴¹

By 2030, the Government aims to develop a vibrant and attractive tourism industry that is economically, socially, and environmentally sustainable, significantly increasing employment and enhancing Timor-Leste's international image. The ecotourism sector is leading efforts to increase tourism revenue. The whale watching season significantly boosts the local economy compared to non-active seasons. The National Statistics Directorate of the Ministry of Tourism has recorded a notable increase in visitor arrivals during the months between October and December.

The increase in ecotourism visitors also translates into higher hotel occupancy rates, greater use of local services (such as restaurants, transport, and consumer goods), and the creation of temporary employment opportunities, especially for women and young people during the whale-watching season.

Notwithstanding the need to invest in infrastructure to support tourism development, nature-based activities – aimed at protecting and enjoying the country's biodiversity – offer unique opportunities for the development of the national tourism sector, including activities carried out in the maritime space.

Ecotourism plays a significant role within this strategy, as by definition it promotes environmentally sustainable practices and preserves Timor-Leste's rich biodiversity.

Promoting Timor-Leste's unique marine ecological assets, due to its location in the Coral Triangle and whale-watching opportunities from October to December, is vital for nature-based tourism in the region.

3.3.2. Biodiversity

According to the report of the National Biodiversity Strategy and Action Plan of Timor-Leste, prepared in 2011 and revised in 2015, a total of 2,448 species of flora and fauna have been identified in Timor-Leste. These include both marine and terrestrial species, categorised as follows: vertebrates (amphibians: 10; fish: 334; birds: 258; mammals: 97; reptiles: 63); invertebrates (molluscs and crustaceans: 319; cnidarians and corals: 14; insects: 488); and plants (865). Within the country, 31 species are classified as threatened, including 4 critically endangered species (White-bellied Sea eagle, Yellow-crested cockatoo, Hawksbill turtle and Leatherback turtle), 8 endangered species (mainly turtles and birds), and 19 vulnerable species (notably sandalwood, teak and rosewood).⁴²

The national list of protected species includes eighty-one species of birds and forty-four species of terrestrial fauna, covering mammals, amphibians, reptiles, insects, and freshwater fish. Among these protected species is the saltwater crocodile, which inhabits rivers, estuaries, and coastal marine areas. Despite some conflict with the human population – there have been reports of attacks in recent years – the crocodile is a revered species among Timorese people. For this reason, and because it holds touristic interest, a Crocodile Park is planned for construction through the Infrastructure Fund.

Regarding marine fauna, 14 protected species have been identified, including: all turtle species; dugong; whale; dolphins; seals; sea lions; whale shark; coral; and nautilus.⁴³

In addition, all other species listed in Annexes I and II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)⁴⁴, and those on the International Union for Conservation of Nature (IUCN) Red List of Threatened Species, are protected⁴⁵.

Declaring Protected Areas across the country is therefore of great importance, not only to preserve these species and ecosystems, but also because this preservation supports the development of sustainable tourism projects, particularly ecotourism, creating local income and encouraging communities to become active participants in this mission for long-term sustainability.

The Government, through the Infrastructure Fund, has planned studies and design concepts for the construction of a Flora and Fauna Species Conservation Centre in Hera, Metinaro. In addition, ecotourism projects are underway or planned for Maubara Lagoon, as well as other sustainable development initiatives in lagoons and beaches in the municipalities of Aileu, Lautém, Bobonaro (Marobo), and Venilale.

While protected areas are primarily intended to safeguard nature from human impact, activities such as tourism, scientific expeditions, and educational actions, if properly regulated and aligned with environmental preservation, may benefit conservation.

Protected areas aim to protect specific areas that represent entire ecosystems and critical habitats for endemic, migratory, or otherwise legally protected species, implementing an ecosystem-based approach and ensuring the resilience and capacity of these areas to contribute to mitigation and adaptation to both natural and human-induced pressures, particularly those related to climate change.⁴⁶

With this framework in mind, the following protected areas have been defined, as shown in the table below.

Table 5: Terrestrial Protected Areas⁴⁷

No.	Protected Area	Municipality	Administrative Post	Sucos	Estimated Area (Ha)	km ²	Updated Area ⁴⁸	km ²
1	Nino Konis Santana National Park	Lautém	Tutuala	Tutuala	123.600 (terrestrial and maritime)	1,236	68,000 (terrestrial)	680
				Mehara				
			Lospalos	Muapitino				
				Lore I				
				Bauro				
Lautém/Moro	Com							
2	Monte Legumau	Lautém	Luro	Vairoke	35,967	359.67	17,882	178.82
				Afabubo				
				Baricafa				
		Baucau	Laga	Atelari				
		Baguia	Uakala					
3	Lagoa Maurei	Lautém	Iliomar	Tirilolo	500	5	4376	43,76
		Viqueque	Uato Carbau	Irabin de Baixo				
4	Be Matan Irabere	Viqueque	Uato Carbau	Bahatata				
				Irabin de Baixo				
				Irabin de Xima				
5	Monte Matebian	Baucau	Quelicai	Lai sorulai	24,000	240	24,000	240
				Uaitame				
				Afaca				
				NamaNei				
				Guruca				
			Laga	Sagadati				
				Atelari				
			Baguia	Alawa Leten				
				Lavateri				
				Alawa Kraik				
		Defa Uassi						
		Ossu-Huna						
		Viqueque	Afaloicai					
			Samalari					
			Haeconi					
UatuLari	Babulo							
	Vessoro							
UatuCarbau	Afaloicai							
	Uani Uma							
6	Monte Mundo Perdido	Viqueque	Ossu	Ossu de Cima	25,000	250	25,000	250
				Loihuno				
				Liaruca				

				Builale				
7	Monte Laretame	Viqueque	Ossu	Uagua	16,429	164.29	16,429	164.29
				Ua Bubu				
		Baucau	Venilale	Waioli				
				Watu-Hako				
8	Monte Builo	Viqueque	Ossu	Loihuno	8,000	80	8,000	80
				Uagua				
				Ossu Rua				
		UatuLari	Matahoi					
9	Monte Burabo'ó	Viqueque	UatuCarbau	Afaloicai	18,500	185	18,500	185
				Uani Uma				
				Irabin de Baixo				
10	Monte Aitana	Viqueque	Lacluta	Ahik	17,000	170	17,000	170
				Lalini				
11	Monte Bibileo	Manatuto	Laleia	Cairui	19,000	190	19,000	190
		Viqueque	Lacluta	Bibileo				
				Dilor				
12	Monte Diatuto	Manatuto	Soibada	Fatu Makerek	15,000	150	15,000	150
				Samoro				
			Laclubar	Funar				
				Fatu Makerek				
				Mane Lima				
13	Monte Kuri	Manatuto	Laclo	Uma Kaduak				
14	Parque Nacional Kay Rala Xanana Gusmão	Manufahi	Same	Holarua	18,000	180	9,231	92.31
				Letefoho				
				Rotutu				
		Ainaro	Ainaro	Mauciga				
				Soru Kraik				
				Leolima				
15	Ribeira de Clere	Manufahi	Fatuberliu	Uma Berloik	30,000	300	30,000	300
				Dotik				
				Caicasa				
16	Lagoa Modomahut	Manufahi	Fatuberliu	Fatukahi	22	0.22	4,059	40.59
17	Lagoa Welenas	Manufahi	Fatuberliu	Fatukahi	20	0.20	20	0.20
18	Monte Manucoco	Díli	Ataúro	Makili	4,000	40	2,137	21.37
				Vila				
				Manumeta				
				Makadade				
19	Cristo Rei	Díli	Cristo Rei	Belo	1,558	15.58	1,754	17.54
				Hera				
				Camea				
				Metiaut				
20	Lagoa Tasitolu	Díli	Dom Aleixo	Comoro				
21	Monte Fatumasin	Liquiçá	Bazartete	Metagou	4,000	40	4,973	49.73
				Loerema				
				Fatumasin				

22	Monte Guguleur	Liquiçá	Maubara	Lisadila	13,159	131.59	157.54	157.54
				Maubarlista				
				Guguleur				
23	Lagoa Maubara	Liquiçá	Maubara	Vatuvou			1,426	14.26
24	Monte Tatamailau	Ainaro	Hatobuilico	Nunumogue	20,000	200	8,554	85.54
			Ainaro	Manutasi				
		Ermera	Letefoho	Bobo Leten				
			Atsabe	KatraiKraik				
				Malabe				
25	Monte Talobu/ Laumeta	Ainaro	Ainaro	-	15,000	150	15,000	150
26	Monte Loelako	Bobonaro	Bobonaro	Kilatlau	4,700	47	4,700	47
			Maliana	Ritabou				
				Odomau				
			Cailaco	Raiheu				
				Atudara				
				Manapa				
		Ermera	Atsabe	Bobo Leten				
				Paramin				
27	Monte Tapo/Saburai	Bobonaro	Lolotoe	Gildapil	5,000	50	5,000	50
				Lontas				
				Oeleu				
			Bobonaro	Tapo				
				Leber				
			Maliana	Saburai				
		Odomau						
28	Lagoa BeMalae	Bobonaro	Balibó	Sanirin				
				Leolima				
				Aidabaletem				
29	Korluli	Bobonaro	Maliana	Ritabou				
				Tapo/Memo				
			Caicalo	Manapa				
30	Monte Lakus/Sabi	Bobonaro	Lolotoe	Lontas				
				Gildapil				
				Leber				
				Guda				
				Lupal				
				Opa				
				Deudet				
31	Monte Taroman	Covalima	Fatululik	Taroman	19,155	191.55	4,255	42.55
				Fatululik/Beda si				
			Fohorem	Dato Rua				
				Dato Tolu				
			Laktos					
32	Reserva Tilomar	Covalima	Tilomar	Maudemo	7,000	70	5,707	57.07
				Lalawa				

				Kasabauk				
				Beseuk				
33	Cutete	Oe-Cusse	Pante Makassar	Costa	13,300	133	9,525	95.25
				Nipane				
				Bobokase				
				Cunha				
				Lalisu				
34	Monte Manoleu	Oe-Cusse	Nitibe	Usitaco	20,000	200	20,000	200
				BeneUfe				
35	Área Mangal Citrana	Oe-Cusse	Nitibe	BeneUfe	1,000	10	455	4.55
36	Oebatan	Oe-Cusse	Nitibe	SuniUfe	400	4	400	4
37	Ek Oni	Oe-Cusse	Nitibe	Lela-Ufe, Bana Afi	700	7	700	7
38	UsMetan	Oe-Cusse	Pante Makassar	Taiboko	200	2	1,353	13.53
39	Makfahik	Manatuto	Barique	Manehat				
40	Área Mangal Metinaro	Dili		Metinaro			905.24	9.05
41	Área Mangal Hera	Dili	Cristo Rei	Hera			116.3	1.16
42	Lagoa Foun&OnuBot	Covalima	Tilomar	Maudemu	12	0.12	12	0.12
				Lalawa				
				Beiseuk				
43	Lagoa BikanTidi	Ainaro	Leolima		110	1.10	652	6.52
44	SamikSaron	Manatuto	Barique	Barik				
			Soibada Laclubar	Cribas				
				Orlalan				
				Manlala				
TOTAL						4,287.82		3,798.76

Table 6: Marine Protected Areas⁴⁹

No.	Protected Area	Municipality	Administrative Post	Sucos	Estimated Area (Ha)	km ²	Updated Area	km ²
45	Aquatic Nature Reserve	Bobonaro	Balibó	Batugadé	112.59	1.13	112.59	1.13
46	Aquatic Nature Reserve	Dili	Ataúro	Suco da Vila	50.85	0.51	13,252.22 ⁵⁰	132.52
47	Liquiçá Samba Sembilan ⁵¹	Liquiçá	Bazartete	Suco Mota Ulun e Suco Ulmera			8,372.20	83.72
48	Nino Konis Santana Marine National Park	Lautém	Tutuala	Lore, Muapitine, Tutuala, Mehara and Com	58,225	582.25	58,899	588.99
TOTAL						583.88		806.36

Government Resolution No. 34/2015 of 23 September, on SDGs, among other initiatives, recognises the need to achieve Aichi Target 11 of the United Nations Convention on Biological Diversity (by 2020, conserve at least 17% of terrestrial and inland water areas, and 10% of coastal and marine areas). Although these Aichi Targets were updated in 2022 through the Kunming-Montreal Global Biodiversity Framework (to protect 30% of global terrestrial and marine areas by 2030 through protected areas and other effective area-based conservation measures), and Timor-Leste is a party to the Convention on Biological Diversity, current conservation targets remain far from being met.

In practice, and in accordance with what is regulated by legal decree, there are four marine and coastal protected areas totalling 806.36 km² (about 5.56% of the territorial sea or 1.38% of the already defined EEZ), and 44 terrestrial protected areas, including inland waters, covering a total of 3,798.76 km² (approximately 25%).

To date, no management approved by Government Resolution have been prepared for the country's protected areas. This means that national protected areas are not yet effectively implemented, preventing a reliable evaluation in terms of systematic goals and measures. In other words, that there is currently no specific system in place for adequate protection and monitoring.

It should be noted, however, that at the 13th Conference of the Parties to the Convention on Biological Diversity in 2016, the island of Ataúro and the Nino Konis Santana National Park, meeting the established scientific criteria, were designated as Ecologically or Biologically Significant Areas (EBSAs). These are marine areas identified based on their importance for biodiversity and the health of marine ecosystems.⁵²

3.3.3. Fisheries and Aquaculture

Regarding the fisheries and aquaculture sector, despite the abundance of fish stocks and a variety of coastal and marine habitats, 90% of fishing in Timor-Leste is traditional or non-mechanised (artisanal and small-scale fishing), representing just 0.4% of GDP.

According to the survey carried out by the Government in the preparation for National Spatial Planning for Timor-Leste, the main fishing communities are located in the municipalities of Dili, Baucau, Bobonaro, Liquiçá, Manatuto, and Lautém on the northern coast, and Covalima on the southern coast, as well as on the island of Ataúro and in Pante Macassar, in Oe-Cusse Ambeno.

Fishing is coastal and artisanal, with no deep-sea fishing, or long-distance fishing, conducted by Timorese fishers. Data from the 2019 Agricultural Census indicates that 7,768 households engage in fishing or aquaculture activities, with around half dedicating themselves exclusively to fishing. Furthermore, a quarter of households engage in fishing without the use of boats or vessels, gathering various marine foods using spears, hand-gathering and traps. This activity, regarded as subsistence fishing, is often essential to households' food security, particularly in bridging seasonal gaps and addressing shortages of nutritious food.

Given this context, it is difficult to estimate the contribution of fishing to the national economy due to the informal nature of the sector, as is the case in many other island and developing nations. However, it generates significant additional income for the families involved and provides a valuable source of food for coastal communities.

As for fish products, they are usually sold fresh and on the same day, in local coastal markets, as the sector remains unorganised and faces a series of challenges in developing an effective value chain strategy.

According to the same report, foreign capital is limited. In 2016, 18 fishing licences were granted to foreign vessels, but according to information from the time, these operations are no longer active in the country, with all catch being exported and not entering the Timorese market.

As for data on commercial fishing licences between 2018-2025, provided by the Ministry of Agriculture, Livestock, Fisheries and Forestry (MALFF), licences have been granted for commercial fishing in accordance with the table below:

Table 7: Fishing Licences, MALFF

No.	Year	Artisanal	Non-Commercial	Commercial
1	2018	15	9	
2	2019	18	9	
3	2020	18	11	
4	2021	223	2	
5	2022	215	2	
6	2023	170	11	61
7	2024	168	20	132
8	2025 (march)	3	1	21
TOTAL		830	65	214

Although information is scarce, it can be concluded that fish consumption is low compared to other coastal nations. Families who fish also eat fish, but the general population does not, despite fish being an important source of dietary protein. In Dili, most of the population consumes fish (63%), but outside this municipality the figures vary, ranging from 11% in Ermera to 33% in Aileu and Bobonaro.

In most Pacific Island countries and territories, fish contributes 70-90% of the animal protein in the diet. In Timor-Leste, the main source of animal protein is chicken (54%), while fish accounts for only 31%. The results of a survey on fish consumption indicate an average consumption of 8.7 kg per person per year. This represents a clear increase compared to the 2011 estimates of 6.1 kg per year, with notable increases among rural and urban populations during this period. However, these figures remain very low when compared to other coastal countries, such as Portugal (55.6 kg) or Indonesia (38.87 kg).⁵³

In addition to the dietary habits of Timorese people, fish consumption is also limited by high prices and the lack of availability in the market (mainly in mountainous areas). Contributing to this is the lack of logistical and processing infrastructure, as well as inadequate equipment and technology.

These are also the main reasons why there is no structured value chain for the collection, production, and commercialisation of seaweed at a commercial level, despite its potential for export, particularly at the regional level.

Regarding the country's fishery resources, according to the MALFF, there is significant potential for pelagic fish, demersal fish, tuna, and lobster, along both the northern and southern coasts, as well as within the country's EEZ.

The MALFF has also released the following updated data for 2025 regarding the fisheries sector in the country.

Table 8: Small-Scale Fisheries Data, MALFF

Number of Fishers	6,876.00
Fisher Groups	1,140
Fisher Centres	162
Fish Landing Sites	9
% of Small-Scale Fisheries	99.5%
Use of Artisanal Boats and Motorboats	5-15 HP 15-25HP
Total Boats	4,870
Total Motorboats	2,175
Total Non-Motorised Boats	2,695

The volume of fish found along the coastal waters of the country is approximately 1,624.4 kg/ha, which indicates a situation where overfishing is not currently occurring. The zones of commercial fishing interest, according to local knowledge and fishers' perceptions based on actual sales, are represented in the following regions:

Region 1: Baucau, Manatuto, Lautém and Viqueque

Region 2: Manufahi, Ainaro and Covalima

Region 3: Mainland Dili, Liquiçá and Bobonaro

Ataúro: Island of Ataúro

RAEOA: Special Administrative Region of Oe-Cusse Ambeno

Regarding reef fish biomass (a measure of the mass of live fish in a given area), used as an indicator of reef health and fishing intensity in each location, was measured by NOAA (National Oceanic and Atmospheric Administration, United States). It found that the western coast of Ataúro Island has the highest average fish biomass (75.9 g/m²), and the sectors of Dili/Manatuto (23.4 g/m²) and Bobonaro (23.0 g/m²) have the lowest. The high biomass along the western coast of Ataúro may be related to the high structural complexity of the reef, which is dominated by a steep wall.⁵⁴

Timor-Leste's greatest challenge remains the presence of illegal fishing activities within its sovereign waters, resulting not only in financial losses but also in environmental damage, particularly in terms of irregular exploitation and even destruction of the national marine environment and its ecosystems. The pending delimitation of the maritime boundary between Timor-Leste and Indonesia and the resulting legal uncertainty hinder the effective application of the law and proper oversight by the competent authorities, without prejudice to the lack of the necessary resources to carry out effective supervision.

This is especially relevant considering that Timor-Leste does not have a national commercial/offshore fishing fleet. Fishing activities within Timor-Leste's EEZ, particularly in the

south-southwestern area at some distance from the mainland, are allegedly conducted by foreign commercial vessels – illegally, considering that no licences have been issued by the Government of Timor-Leste.

Annual losses to the country from illegal, unreported, and unregulated fishing were estimated at USD 20 million in 2003 and around USD 40 million in 2013. In 2016, semi-industrial fishing licences were granted to Chinese vessels, but these were suspended when the vessels were found to be fishing selectively and illegally for sharks in 2017.⁵⁵

More recently, the economic loss to the State of Timor-Leste continues to be significant, as shown in the table below.

Table 9: Impact of IUU Fishing in the Country⁵⁶

Year	Total Vessels (Unit)	Illegal Exploitation (Tonnes)	Financial Loss (USD)
2018	107	6,420	136,104,000,00
2019	69	4,140	87,056,000,00
2020	48	2,880	61,694,000,00
2021	42	2,520	53,424,000,00
2022	21	1,260	26,712,000,00
2023	17	1,020	21,624,000,00
2024	16	960	20,352,000,00
Total	320	19,200	406,966,000,00

Aquaculture is a new sector in Timor-Leste, and the Government has adopted a program to encourage its growth to tackle widespread poverty and malnutrition.

During the Indonesian occupation (1975-1999), freshwater fish hatcheries were established in some municipalities to cultivate common carp, while brackish aquaculture ponds were used to raise tiger prawns and milkfish. All these activities gradually came to an end over the course of the 24 years of conflict. Since independence, the Government has gradually resumed aquaculture activities in collaboration with development agencies, restoring fish hatcheries and coastal aquaculture ponds, and distributing fingerlings to selected households.⁵⁷

The *Strategic Development Plan 2011-2030* recognises the importance of this sector and emphasises that aquaculture activities “can offer income-generating opportunities for coastal communities.” In 2012, the Ministry of Agriculture and Fisheries, with technical assistance from WorldFish, launched the National Aquaculture Development Strategy of Timor-Leste (2012-2030).

One of the specific short-term objectives was to increase per capita fish consumption from 6.1 kg to 15 kg by 2020, while in the long term, the expectation was that the aquaculture sector would contribute 40% of the national fish supply by 2030.

The National Survey on Fish Consumption, 2024/2025, suggests that some progress is being made towards achieving this goal. Between 2011 and 2025, fish consumption in inland communities is estimated to have doubled, rising from 4 kg per capita per year to 8 kg per capita per year. Aquaculture is likely a major contributor to this success.

One of the most significant initiatives for aquaculture development was the project “Combatting Malnutrition and Poverty through Aquaculture in Timor-Leste” (COMPAC-TL), carried out between 2013 and 2016 with the support of WorldFish, Mercy Corps and Hivos (funded by the Norwegian Ministry of Foreign Affairs) across six rural municipalities (Lautém, Baucau, Viqueque, Manufahi, Ainaro, and Covalima).

Additionally, and complementarily, the Partnership for Aquaculture Development in Timor-Leste (PADTL), funded by the New Zealand Ministry of Foreign Affairs and Trade, supported sustainable small-scale aquaculture programs. Other significant initiatives include projects by Catholic Relief Services and efforts by the Ministry of Agriculture and Fisheries, aimed at building one hectare of ponds in each of the following ten selected sites: Sare (Ermera), Meligo (Bobonaro), Lactos (Covalima), São (Manatuto), Edemumo (Viqueque), Com (Lautém), Sebagulau (Ainaro), Gariwai (Baucau), Caisaca (Manufahi), and Lisadila (Liquiçá).⁵⁸

The most farmed freshwater species are tilapia and carp. Brackish water aquaculture may have growth potential if the existing milkfish and shrimp pond infrastructure is rehabilitated, although there are currently no fingerlings available for this type of production in Timor-Leste. Care must be taken when collecting wild fingerlings or larvae from coastal habitats, such as mangroves, to avoid harming the sustainability of these ecosystems.

Marine aquaculture, or mariculture – such as seaweed farming – is primarily conducted in Ataúro. However, the Government could also promote the cultivation of crab and grouper to compete with products exported in the region.

In fact, domestic aquaculture production remains low in comparison to its estimated potential yields, partly due to competition from more accessible and affordable sources of protein.

It can be concluded that information on the numerous aquaculture development projects needs to be consolidated, as do national statistics on the number of households involved in aquaculture, as well as areas under production and yields.

3.3.4. Ports and Maritime Transport

Maritime transport, ports, and shipbuilding currently represent around 4% of GDP. Port infrastructure is crucial, as 90% of international trade is conducted via maritime routes. Strategic investment in more efficient transport and port management systems will contribute to the import and export of goods, thereby promoting economic growth.

A new port has been built near the capital, Dili, the port of Tíbar, in Liquiçá, and the development of another is planned in Suai, on the south coast, primarily to serve the oil sector. The development of national ports is essential to promote national integration and to serve the oil, tourism, and broader economic development industries. Therefore, a port system must be developed as an integral part of the country’s infrastructure development, especially considering that 95% of Timor-Leste’s external trade volume – most of which are imports – is managed via maritime routes, with the Port of Tíbar being the country’s only international port.

By the end of December 2024, 372 vessels had docked at the port since its inauguration, generating revenues for the State of Timor-Leste. The project's concessionaire employs 200 Timorese workers and 250 temporary workers, compared to just three expatriates. The Tibar Port also hosts various relevant government departments, including the National Maritime Authority (NMA).

In light of Timor-Leste's accession to the World Trade Organization (WTO) in 2024, and with full membership in the Association of Southeast Asian Nations (ASEAN) in October 2025, there is a national ambition to increase export products (beyond petroleum and green coffee beans), including through the growth of industrial production, such as the processing of marine products and expansion of the fisheries sector.

3.3.5. Petroleum Sector

Regarding the petroleum sector, there are several active Production Sharing Contracts (PSCs) in Timor-Leste as of March 2025, both onshore and offshore, involving various designated operators. The environmental licensing requirements have been met, particularly in relation to offshore marine areas.

3.3.6. Health and Basic Sanitation

The Government is aware of the importance of environmental health for the promotion of the marine environment and for public health. It is essential to raise awareness of the danger of biological and toxic waste entering water systems, in particular syringes and materials contaminated with blood, antibiotics, disinfectants, and pharmaceuticals, which must be disposed of safely.

The dumping of hospital waste in open dumps near coastal areas or directly into watercourses poses a serious threat to marine and human ecosystems and promotes antimicrobial resistance (AMR), an emerging risk to global health. Sanitation acts as a technical barrier against AMR, a global risk exacerbated by the unsafe disposal of biological and toxic waste into watercourses. On the other hand, land-based pollution generates a 'cascade effect': chemical and biological contaminants flow from the mountains into the marine water column, entering the food chain through bioaccumulation. This occurrence not only threatens national public health but also undermines the potential for fish exports by failing to meet international health standards.

Basic sanitation is essential to ensure improvements in public health and is also a pillar of the Blue Economy. Access to health and sanitation services is crucial for women, especially in rural areas, where they take on domestic and family care responsibilities. Improvements in these services contribute to women's health, well-being, and empowerment.

Basic sanitation is fundamental to improving public health and is also a pillar of the Blue Economy. It consists of four main components, all of which are currently being improved by the Government:

- Drinking water – treatment and supply of safe drinking water;
- Sewage – collection and treatment of domestic and industrial wastewater;
- Drainage – urban stormwater drainage; and
- Solid waste – cleaning, collection, and proper disposal of solid waste, including rubbish.

Currently, access to basic level water services in the country stands at 87% (98% in urban areas and 82% in rural areas). However, it should be noted that the rate of access to piped water is significantly lower. Basic sanitation coverage stands at 58% (72% in urban areas and 52% in rural areas). Budget allocations for water and sanitation have increased in recent years, as has the execution of that budget, which is essential to improving these indicators.

Drainage and water supply infrastructure projects in Dili are nearing completion. Other water supply and sanitation projects are underway in all municipal capitals. A waste discharge centre (for used oils) is currently being established in Tíbar, as well as a Liquid Waste Management Centre in the suco of Mahakidan, administrative post of Alas.

Through the Infrastructure Fund, several projects are planned and/or ongoing in this sector, including hydrographic surveys, water supply and sanitation projects, river and stream containment and rehabilitation throughout the country, as well as the sanitation and drainage master plan for Dili.

3.3.7. Education and Vocational Training

Education and vocational training are fundamental for the development and sustainability of the Blue Economy. Beyond basic training in general environmental protection and economic development in the maritime sector, there is a need to develop skills in innovative technologies and practices to diversify industries linked to the Blue Economy, such as sustainable fisheries, aquaculture, coastal tourism, and marine science.

Moreover, scientific understanding of marine ecosystems and the ability to implement sustainable management practices depends on adequate education in marine sciences, biology, environmental management, and other related fields. This also helps to raise awareness about the importance of the ocean and the environmental challenges faced by the country.

To foster the development of the Blue Economy, it is crucial to invest in education and training programs at all levels, from basic environmental science education to advanced programs in scientific research and ocean technology development. This will help prepare the next generation of Timorese to face the challenges associated with the sustainable use of ocean resources and contribute to a bluer, greener, and more resilient economy.

The Government will ensure that gender equality and social inclusion principles are embedded in all Blue Economy initiatives, by providing suitable facilities and ensuring women's access to education and vocational training, with a view to reducing poverty and facilitating their entry into the labour market.

In addition, the National Centre for Employment and Vocational Training (CNEFP), through its Maritime Training Unit (MTU), established in November 2012 under German Development Cooperation in Timor-Leste, was created in response to the need to train and prepare Timorese citizens to enter and develop the national maritime industry. The centre has been providing training to current and future maritime professionals in accordance with international standards and in compliance with the recommendations and models of the International Maritime Organization (IMO).

The CNEFP, accredited by National Institute for Workforce Development (INDMO), ensures the quality of its training programs and, to date, has benefited 2,306 trainees in the development of skills and qualifications in the maritime sector between 2012 and 2025.

Since 2013, CNEFP-MTU has been offering specialised training courses tailored to the needs of public and private sectors in the maritime area, aiming to update and improve maritime and port operations (843 beneficiaries).

3.3.8. Maritime Surveillance and Security

As part of the country's socioeconomic profile, it is important to highlight that maritime surveillance and security are essential components for the sustainable development of Timor-Leste's Blue Economy.

Maritime security helps protect marine and coastal resources from illegal activities and the unauthorised extraction of national resources. In addition, the surveillance and security measures in national maritime space contribute to mitigating international threats such as piracy, drug trafficking, human trafficking, and other maritime crimes. Lastly, by ensuring a safe environment, maritime security and surveillance enhance the development of trade and economic activities in the country, attracting both domestic and international investment, including environmental protection and the prevention of damage that could harm the health of the ocean and coastal areas.

In Timor-Leste, the Surveillance and Control System for Maritime and Aerial Spaces, by the Ministry of Defence, is a unique and innovative system that has the capacity to monitor the country's maritime and aerial space, using artificial intelligence. Although the system still lacks radar technology capable of effectively capturing all movements, and requires further development and optimisation, including a database to record all fishing and vessel movements, Timor-Leste has implemented a National Border Surveillance System.

The Timor-Leste Defence Forces (F-FDTL) are fundamental to the Blue Economy. The F-FDTL are responsible for maritime sovereignty, surveillance, security of waters under national jurisdiction, and the prevention of illegal fishing, maritime trafficking and environmental degradation. The Naval Component of the Timor-Leste Defence Force is an essential part of the Blue Economy investing in naval vessels, specialised training and infrastructure to support maritime mobility and logistics.

The F-FDTL can also play an important role in maritime education and citizenship programs, particularly with young people, through civic and patriotic training projects, ocean literacy, and involvement in coastal and island activities, strengthening the link between security, youth, and sustainable development.

Timor-Leste thus finds itself at a crucial moment in its development, where effective policies to address the challenges of sustainable development, economic diversification, and improvement of living conditions for its people – together with mechanisms for transparency and institutional strengthening – can contribute to achieving the objectives set out in the *Strategic Development Plan* ahead of schedule.

Table 10: Geographic and Socioeconomic Indicators of Timor-Leste

INDICATOR	LATEST DATA
Land Area	Approx. 15 000 km ²
Coastline Length	Approx. 800 km
Exclusive Economic Zone (EEZ) (excluding future agreement with Indonesia)	Approx. 58 500 km ² to the south
Territorial Sea of Timor-Leste (excluding disputed area)	Approx. 14 510 km ²
Total Maritime Area of Timor-Leste (excluding disputed area)	103 800 km ²
Population	1 341 737 (Census 2022)
Coastal Population	30% (MoF)
Gross Domestic Product (GDP) (USD, 2023)	2.24 billion ⁵⁹
GDP per Capita (USD, 2023)	1,648.6 ⁶⁰
Annual GDP Growth (2024)	3.7% ⁶¹
Human Development Index (2023/2024)	0.566 Ranked 155 out of 193 countries ⁶²
Life Expectancy at Birth (2022)	69 ⁶³
Access to Drinking Water (2022)	87% ⁶⁴
Access to Basic Sanitation (2022)	58% ⁶⁵
National Hygiene Coverage (2022)	28% ⁶⁶
Acute Food Insecurity (2023/2024)	27% ⁶⁷
Child Stunting under 5 years (2024)	47% ⁶⁸
Population Employed in Agriculture (%)	70% ⁶⁹
Protected Terrestrial and Marine Areas (% of total surface) (2022)	5.2% ⁷⁰
Marine Protected Areas (% of territorial waters) (2022)	1.4% ⁷¹
Ocean Health Index (OHI)	57 (below global average of 69) Timor ranks 205th out of 220 EEZs ⁷²
% of Coastline under Integrated Coastal Management	30.49% ⁷³
Share of Maritime Activities in GDP (including oil and gas)	87% ⁷⁴
Share of Maritime Activities in GDP (excluding oil and gas)	20% ⁷⁵
Contribution of Maritime Transport and Ports to GDP (2015)	4%
Contribution of Fisheries to Non-Oil GDP	2-3% ⁷⁶

3.4 Historical and Cultural Characterisation

The sea is an inseparable element of the history and identity of the Timorese people. Maritime activities – whether traditional fishing, salt production, or sustainable practices linked to beaches and coral reefs – as well as ancestral rites and traditions practiced by both women and men, deeply shape Timor-Leste’s culture.

This historical and pragmatic connection with marine resources contributes not only to cultural diversity but also to the economic and environmental sustainability of Timor-Leste.

Like other founding myths and animist cosmologies in the Austronesian region, the legend, where today is the island of Timor-Leste was born from a crocodile and its people from a boy whom it brought. Because of this legend, which describes the formation of Timor-Leste as the result of a bond between nature and humans, many Timorese consider the crocodile sacred. The crocodile is often affectionately referred to as “grandfather.”

Like other countries that have experienced occupation and/or long periods of instability and conflict, Timor-Leste also developed its unique culture and identity through various historical periods, from Portuguese colonisation (1515-1975) to occupation during World War II by Australia and Japan, despite Portugal’s declared neutrality (from December 1941 to 1945), and the illegal invasion and annexation by Indonesia (1975-1999).

This five-century-long experience shaped the Timorese character and nurtured a deep desire for freedom and independence. These sentiments manifested in multiple moments throughout Timor’s history – from insurgencies and uprisings during colonisation to the final resistance and guerrilla movement during the illegal Indonesian occupation, which lasted about 24 years.

Beyond its advocacy for peace and reconciliation on an international scale, Timor-Leste has increasingly embraced ocean culture, recognising that understanding and preserving the ocean is fundamental to humanity.

Internationally, Timor-Leste is part of the global movement for the ocean, committing to multilateral goals and targets and seeking multisectoral and multidisciplinary partnerships for innovative and sustainable solutions for ocean health. Indeed, Timor-Leste recognises that this global challenge can only be overcome through global cooperation.

“It’s not about the UN, it’s not about governments, it’s not about civil society, the private sector, or the scientific community. We’re all in this together.”

Peter Thomson, UN Special Envoy for the Ocean

As one of the Small Island Developing States (SIDS) and LDCs, Timor-Leste depends heavily on its maritime space and ocean resources for survival and prosperity.

Timor-Leste is particularly engaged with the SIDS, as the countries comprising this group share the common challenge of vulnerability to environmental changes and natural disasters, geographical

isolation and remoteness from global markets, as well as the well-known susceptibility – given their reliance on a limited number of sectors – to fluctuations in global markets and economic pressures.

The Blue Economy Policy aims to integrate ocean culture into all spheres of Timorese life, not only in traditional maritime areas and marine/environmental sciences, but also in education, youth, arts, and culture. This will in turn encourage the engagement of individuals from all sectors of society.

Through the campaign *Ha’u Nia Tasi, Ha’u Nia Timor* (“My Sea, My Timor”), the Government has been fostering a civic relationship with the sea and ocean, especially among the youth.

As part of this campaign, a children’s book entitled “Ha’u Nia Tasi, Ha’u Nia Timor” was produced and distributed in three languages, focusing on the sea of Timor-Leste. The Ministry of Education distributed this book to schools across the country, and it has even been incorporated into the school curriculum (in Tetum for Year 3 pupils, in Portuguese for Year 4 pupils, and is planned for Year 8 pupils in English in 2026). Furthermore, the themes of ocean protection and marine sustainability have been integrated into the 9th grade school curriculum in subjects such as Portuguese, Tetum, English, Natural Sciences, Physical Education, Human Fraternity, Morals and Ethics, and Arts and Culture.

The Ministry of Education has also developed interdisciplinary projects and complementary educational activities, such as recycling campaigns and marine pollution awareness, exhibitions, and cultural activities using recyclable materials, along with the creation of educational content on environmental best practices. These efforts reaffirm cultural and artistic practices aligned with marine sustainability, including musical projects dedicated to the sea and marine environmental protection, serving as a national anthem for this essential theme.

Maritime policies must consider the unique characteristics of marine space, which distinguish it from terrestrial territory – namely its interconnectivity (the links between marine ecosystems, ocean currents, fisheries, and ecosystem services) and three-dimensionality (complex underwater topography that connects all seas as part of a global ocean). This three-dimensional nature allows for multiple human activities to coexist throughout the water column – from surface use to seabed exploitation – essential for the country’s ecology and economy.

“The sea may now be considered one of the new strategic identity factors of vital importance, and it must be recognised as an element of national identity for a nation whose geography clearly emphasises the sea – holding within it a multitude of opportunities for national development.”

Donaciano Gomes in “Timor-Leste and the Challenges of the 21st Century – The Sea Project”

3.5 Political and Legal Characterisation

The Government’s program sets out the overarching objectives for achieving the vision of a Blue Economy. The Government’s organisational structure defines the responsibilities of each ministry in terms of governance, outlining specific areas of intervention, including the governance of the marine space and sectors connected to the development of the Blue Economy.

For the successful implementation of Blue Economy policies, it is crucial to remove barriers to progress, such as excessive bureaucracy and overlapping mandates, to ensure the creation of clear and enforceable legal frameworks, and to optimise financial and human resources. It is also essential for all government stakeholders to have a solid understanding of the concepts involved and to express a coherent and united vision of national Blue Economy goals, to attract private investment, both domestic and international.

A holistic and integrated approach to governance is required at the national level, going beyond environmental protection and conservation, and including public awareness and ocean literacy, as well as cross-sectoral coordination in areas such as education, economy, public infrastructure, private sector development and entrepreneurship, as well as maritime surveillance, security and defence. This integrated approach also helps to avoid conflicts arising from multiple or unsustainable uses of the ocean, given its simultaneous use for navigation, energy exploration, fishing, and other purposes.

Lastly, international cooperation is vital. The ocean has no visible boundaries, and thus, challenges such as marine pollution, fisheries management, climate change, and maritime security must be addressed through collaboration between States to ensure effective solutions.

3.5.1 Governance Framework

The policy and action plan will be implemented by each government institution, in accordance with their respective responsibilities and powers. Within the scope of the Blue Economy and related areas, without prejudice to the specific organisational structure of each institution, the Prime Minister shall be responsible for leading the negotiation process with Indonesia on land and maritime borders, and for leading and coordinating the development and implementation of the Blue Economy Policy.

Reporting to the Prime Minister, the Land and Maritime Boundaries Office has the following responsibilities: i) Develop the Blue Economy Policy of Timor-Leste and its implementation strategy; ii) Coordinate all matters related to the implementation of the Blue Economy Policy of Timor-Leste; iii) Disseminate information and promote consultations and dialogues that contribute to the national effort to promote and develop the Blue Economy of Timor-Leste, with all State bodies, services and agencies, civil society and the private sector, and all national and international stakeholders, in accordance with the priorities defined by the Government.

Furthermore, it is worth noting the importance of the Government's organisational structure with regard to responsibilities in the Blue Economy sector, where the Deputy Prime Minister and Minister for Economic Coordination, and Minister for Tourism and the Environment, assists the Prime Minister in coordinating and supervising the members of the Government responsible for implementing policies in areas of economic governance, and the Deputy Prime Minister and Minister for Social Affairs and Minister for Rural Development and Community Housing assists the Prime Minister in coordinating and supervising the members of the Government responsible for implementing policies in areas of governance of a social nature.

These areas, which include trade and industry, agriculture and fisheries, transport and telecommunications, vocational training and employment, cooperatives, education and higher

education and science, social solidarity and inclusion, health and youth, art and culture, are fundamental to the Blue Economy development strategy.

However, as already mentioned, for the implementation of the Blue Economy to have an impact on people’s lives, a multi-sectoral approach is required, both in its definition and planning, and in its implementation, monitoring and evaluation; this does not exclude the relevance of other ministries with responsibilities in the areas of public works, finance, planning, foreign affairs and cooperation, oil and mineral resources, security and defence, as well as justice and the ministries responsible for drafting, reviewing and approving the legislative framework.

The national strategy for the Blue Economy sector should be seen as a new national cause involving all sovereign bodies, but also political parties, the country's scientific, academic and educational community, all public or private organisations, including non-governmental organisations, the media, religious and associative movements, local communities and, finally, individuals.

Parts II and III of this document, will outline the sectoral initiatives planned to achieve Timor-Leste’s strategic objectives regarding the Blue Economy.

3.5.2 National and International Legal Framework

The Constitution of the Republic of Timor-Leste states that ‘*Everyone has the right to a humane, healthy and ecologically balanced living environment and the duty to protect and improve it for the benefit of future generations*’, while the state also recognises the need to preserve and enhance natural resources and promote actions in defence of the environment and the sustainable development of the economy (Article 61).

It also stipulates that: “*The resources of the soil, the subsoil, the territorial waters, the continental shelf and the exclusive economic zone, which are essential to the economy, shall be owned by the State and shall be used in a fair and equitable manner in accordance with national interests*” (Article 139(1)). The exploitation of these resources aims at the establishment of mandatory financial reserves and must preserve the ecological balance and prevent the destruction of ecosystems (Article 139(2) and (3)).

Based on the Constitution of the Republic, the country has developed a legal framework that promotes activities related to the Blue Economy and that protects and values the maritime areas and coastal zones of the country, as well as the environmental issues associated with them. This legal framework must, however, be improved to support the definition and implementation of a national strategy for the promotion of a resilient and sustainable ocean economy in Timor-Leste.

Table 11: Summary of the main national and international legal instruments related to the Blue Economy or related areas (2002-2025)

NATIONAL LEGISLATION AND ACTS			
Legislation	Title	Objective	Links
2002			
Law No. 7/2002, of 20 September	Maritime Boundaries of the Territory of the Democratic	Defines the extent of Timor-Leste's maritime claims and rights in accordance with international law	7_2002.pdf (mj.gov.tl)

	Republic of Timor-Leste		
2004			
Decree-Law No. 4/2004, of 11 February	Approves the Water Distribution Regime for Public Consumption	Establishes the regime for the distribution of water for public consumption, incorporating traditional water systems and regulating the State's responsibilities in this domain	https://www.mj.gov.tl/jornal/public/docs/2002_2005/decreto_l_ei_governo/4_2004.pdf
Decree-Law No. 6/2004, of 21 April (as amended by Decree-Law No. 4/2005, of 20 July)	General Bases of the Legal Regime for the Management and Regulation of Fisheries and Aquaculture	Provides a legal basis, principles, and rules for the exploitation and regulation of fishing activities in waters under national jurisdiction and the high seas, as well as aquaculture activities	6_2004.pdf (mj.gov.tl)
Government Decree No. 5/2004, of 21 July	General Fisheries Regulation	Regulates the provisions of Decree-Law No. 6/2004 concerning the legal regime for the management and regulation of fisheries and aquaculture, including the fisheries management plan, fishing vessels, gear, and methods	5_2004.pdf (mj.gov.tl)
Law No. 12/2004, of 29 December <i>(Repealed by the Penal Code)</i>	Crimes Related to Fisheries	Reduces the impact on fisheries of practices harmful to marine ecosystems and the sustainability of marine resources, including illegal fishing	12_2004.pdf (mj.gov.tl)
2005			
Government Decree No. 2/2005, of 6 July	Establishes Fees for Fishing Licences, Inspections, and Services Related to Fishing Activities	Approves the fees to be charged for the issuance of commercial fishing licences	Decreto do Governo 2-2005.pdf
Decree-Law No. 4/2005, of 20 July	Amends Decree-Law No. 6/2004, of 21 April	Establishes a unified concept for monetary charges related to the granting of fishing licences, associated fishing licences, inspections of fishing vessels and aquaculture facilities, as well as the issuance of fishing licence titles or the provision of services	https://www.mj.gov.tl/jornal/public/docs/2002_2005/decreto_l_ei_governo/4_2005.pdf
Ministerial Diploma No. 01/03/GM/I/2005, of 14 June 2007 (as amended by Ministerial Diploma No. 01/167/GM/VI/2007)	Definition of Fishing Zones	Defines the terms of fishing zones and limitations on operations	Jornal da República (mj.gov.tl)
Ministerial Diploma No. 02/04/GM/I/2005	Main Fisheries	Defines the main fisheries in national maritime waters for better management	Diplomas ministeriais 01, 02, 03-GM-I-2005.pdf
Ministerial Diploma No. 03/05/GM/I/2005	Allowable By-catch Percentages	Defines the allowable percentages of by-catch	Diplomas ministeriais 01, 02, 03-GM-I-2005.pdf
Diploma Ministerial 06/42/GM/II/2005	Fines for Fisheries Violations	Defines the amounts of fines for fisheries violations in national waters	Diploma ministerial 06-42-GM-II-2005.pdf

2006			
Government Decree No. 4/2006, of 15 November	Amends Government Decree No. 2/2005, of 6 July	Modifies the expressions used in the collection of fishing licence fees for semi-industrial and industrial fishing vessels, as well as the counterpart fee	https://www.mj.gov.tl/jornal/public/docs/2006/serie_1/serie1_no20.pdf
2007			
Government Resolution No. 8/2007, of 1 August	Establishes the Nino Konis Santana National Park	Protects marine and terrestrial areas	SERIE I NO 21.pmd (mj.gov.tl)
Ministerial Diploma No. 01/167/GM/VI/2007	Amends Ministerial Diploma No. 01/03/GM/I/2005	For compliance with Decree-Law No. 6/2006, of 21 April, on the General Bases of the Legal Regime for the Management and Planning of Fisheries and Aquaculture.	Jornal da República (mj.gov.tl)
2008			
Decree-Law No. 21/2008, of 25 June	Implementation of the Satellite System for Monitoring Fishing Vessels	Establishes and regulates the Continuous Monitoring System for Fishing Vessels via satellite (SIMOCEP), aiming to monitor national and foreign fishing vessels licensed in Timor-Leste for surveillance and control purposes of fishing activities	https://mj.gov.tl/jornal/lawsTL/RDTL-Law/RDTL-Decree-Laws-P/Decree-Law-2008-21.pdf
2010			
Ministerial Diploma No. 430/11/DM/XI/2010, of 26 November	Natural Tourism Enterprise in the Utilisation Zone of Protected Areas and National Parks	Natural Tourism Enterprise in the Utilisation Zone of Protected Areas and National Parks	https://www.mj.gov.tl/jornal/?q=node/3411 (mj.gov.tl)
Ministerial Order No. 08/GMTCI/II/2010, of 23 February	Agreement between the Ministry of Tourism, Commerce and Industry and Balak Sal de Manatuto on Support for Salt Production in the Manatuto Salt Pans	Provides support and incentives for salt production	serie2_no7.pdf (mj.gov.tl)
National Parliament Resolution No. 27/2010, of 9 November	Recommends the Government to adopt measures to reduce the consumption of plastic bags and encourage recycling	Recommends the Government to encourage consumers to reduce the use of conventional plastic bags, appealing for reduction, reuse, and recycling, also through the provision of alternative materials	serie1_no44.pdf (mj.gov.tl)
Ministerial Diploma No. 429/10/DM/XI/2010, of 26 November	Admission of Entry into Protected Areas and Natural Parks	Admission of Entry into Protected Areas and Natural Parks	https://www.mj.gov.tl/jornal/?q=node/3408 (mj.gov.tl)
Ministerial Diploma No. 430/10/DM/XI/2010, of 26 November	Tourism Enterprise in Protected Areas and Natural Parks	Regulation of tourism enterprises in protected areas and natural parks	https://www.mj.gov.tl/jornal/?q=node/3411
2011			

Decree-Law No. 5/2011, of 9 February	Environmental Licensing	Framework relating to environmental licensing	SERIE I NO 7.pmd (mj.gov.tl)
Government Resolution No. 33/2011, of 26 October	National Adaptation Programme of Action for Climate Change	The comprehensive vision outlined in the NAPA aims to make the Timorese People more resilient to Climate Change	https://www.mj.gov.tl/jornal/public/docs/2011/serie_1/serie1_no39.pdf
2012			
Ministerial Diploma No. 17/GM/MAP/01/2012	Prohibition of Transshipment at Sea	Complementary regulations on fishing	https://www.mj.gov.tl/jornal/?q=node/3304
Government Decree No. 1/2012 of 1 February	Establishes the Designated National Authority for the implementation of clean development mechanism projects	Establishes the Designated National Authority, hereinafter referred to as DNA, for the implementation of clean development mechanism projects, pursuant to the Kyoto Protocol and the Marrakesh Accords	serie1_no4.pdf (mj.gov.tl)
Government Resolution No. 8/2012 of 14 March	National Basic Sanitation Policy	Provides guidance and define rules and responsibilities for investment in sanitation and the activities of all ministries and stakeholders in the sector	https://www.mj.gov.tl/jornal/public/docs/2012/serie_1/serie1_no10.pdf
Decree-Law No. 26/2012 of 4 July	Environmental Framework Law	General Framework of Environmental Law	SERIE I NO 24.pmd (mj.gov.tl)
Decree-Law No. 36/2012 of 18 July	Control of Imports and Exports of Substances that Deplete the Ozone Layer	Aiming at environmental protection and the implementation in the domestic legal order of the guidelines set out in the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol for the reduction of substances that deplete the ozone layer	https://www.mj.gov.tl/jornal/public/docs/2012/serie_1/serie1_no25a.pdf
2015			
Ministerial Diploma No. 5/GM/I/2015 of 25 February	Aquatic Natural Reserve in the Coastal Area of Suco de Batugadé in the Subdistrict of Balibó, District of Bobonaro	Defines an Aquatic Natural Reserve and regulates its management with the aim of improving the abundance and diversity of fish stocks	SERIE_I_NO_8.pdf (mj.gov.tl)
Ministerial Diploma No. 6/GM/I/2015 of 25 February	Aquatic Natural Reserve in the Coastal Area of Suco da Vila in the Subdistrict of Ataúro, District of Dili	Declares an Aquatic Natural Reserve for the recovery of fisheries and other biological resources	SERIE_I_NO_8.pdf (mj.gov.tl)
Joint Ministerial Diploma No. 11/GM/2015 of 1 July	Minimum Sizes and Weights for Fishing	Establishes the list of minimum allowable sizes and weights for fishing aquatic species within the maritime territorial waters of Timor-Leste	/SERIE_I_NO_24.pdf (mj.gov.tl)
Joint Ministerial Diploma No. 12/GM/2015 of 1 July	List of Protected Aquatic Species	Establishes the list of protected aquatic species within the maritime territorial waters of Timor-Leste, as	/SERIE_I_NO_24.pdf (mj.gov.tl)

		set out in Annex I, which forms an integral part of this diploma	
Government Resolution No. 34/2015 of 23 September	Sustainable Development Goals	Recognises the need to achieve the Sustainable Development Goals and establishes the Working Group that will carry out the mission of implementing the necessary actions	https://www.mj.gov.tl/jornal/public/docs/2015/serie_1/SERIE_I_NO_36.pdf
National Parliament Resolution No. 19/2015 of 18 November	Sustainable Development Goals (Political Declaration)	Considering the importance of the 17 Sustainable Development Goals, approved by world leaders in New York in September 2015, and their impact on the population of Timor-Leste, the National Parliament recognises the need to achieve the SDGs and recommends that the Government align with the instruments and systems of planning and budgeting for the SDGs	SERIE_I_NO_44.pdf (mj.gov.tl)
2016			
Decree-Law No. 5/2016 of 16 March	National System of Protected Areas	Establishes the legal framework for the creation and management of the National System of Protected Areas	SERIE_I_NO_11.pdf (mj.gov.tl)
Decree-Law No. 10/2016 of 4 May	General Rules on Spatial Planning (POT) for Ataúro Island	Essential territorial management instrument for the socio-economic development and sustainability in the occupation and use of Ataúro Island	SERIE_I_NO_17.pdf
Government Resolution No. 15/2016 of 13 May	National Strategy for Marine Litter Management	Creates the Interministerial Technical Commission on Sea Affairs and competencies to address issues related to marine litter	SERIE_I_NO_18b.pdf
Government Resolution No. 32/2016 of 5 October	Investment Strategy for the Management of Urban Solid Waste in Dili	Approves the investment strategy for the management of urban solid waste in Dili	SERIE_I_NO_39.pdf
2017			
Ministerial Diploma No. 3/2017, of 25 January	On Certification of Timor-Leste Seafarers	Establishes the regime applicable to the certification of national seafarers, creating an exclusively national and provisional legal framework for Timorese seafarers, until the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers of 1978 (hereinafter, STCW Convention) is ratified.	<u>SERIE I NO 4 pdf</u> (mj.gov.tl)
Ministerial Diploma No. 2/2017, of 25 January	Establishment of the Working Group on Climate Change	Establishes the Working Group on Climate Change (WG-CC) under the auspices of the National Directorate for Climate Change, NDCC	<u>SERIE I NO 4 pdf</u> (mj.gov.tl)

Decree-Law No. 2/2017, of 22 March	Approves the Urban Solid Waste System	Rules governing the urban solid waste system in Timor-Leste	https://www.mj.gov.tl/jornal/public/docs/2017/serie_1/SERIE_I_NO_11.pdf
Decree-Law No. 14/2017, of 29 March	Procedure for Submitting for Classification as Protected Area	Establishes the applicable procedure and regulatory standards for submitting a proposal for the classification as protected area with a view to its final approval by the Council of Ministers	https://www.mj.gov.tl/jornal/public/docs/2017/serie_1/SERIE_I_NO_12.pdf
Government Resolution No. 16/2017, of 5 April	National Tourism Policy	Guidelines to grow tourism by 2030	https://www.mj.gov.tl/jornal/public/docs/2017/serie_1/SERIE_I_NO_13.pdf
Joint Ministerial Diploma No. 18/MAP/MCIA/II/2017, of 12 April	List of Aquatic Species (Amendments to Diploma 12/GM/2015 of 1 July)	Establishes the list of protected aquatic species within the national maritime waters, in accordance with Annex I	/SERIE I NO 14.pdf (mj.gov.tl)
Law No. 6/2017, of 19 April	Basic Law on Land Use Planning	Establishes the general bases of public policy on Land Use Planning in Timor-Leste.	https://www.mj.gov.tl/jornal/public/docs/2017/serie_1/SERIE_I_NO_15.pdf
Government Resolution No. 31/2017, of 7 June	Voluntary Commitments to Implement SDG 14	Approval of voluntary commitments to implement Sustainable Development Goal 14	https://www.mj.gov.tl/jornal/public/docs/2017/serie_1/SERIE_I_NO_22.pdf
Law No. 14/2017, of 2 August	General Forestry Regime	Approves the general regime of policy options for the forestry sector, including mangroves	SERIE_I_NO_30.pdf (mj.gov.tl)
Ministerial Diploma No. 44/2017, of 2 August	Regulation on Impact and Benefit Agreements	Regulates projects that may have significant environmental impacts	SERIE I NO 30.pdf (mj.gov.tl)
Ministerial Diploma No. 45/2017, of 2 August	Regulation on the Statute and Rules of Procedure for the Evaluation Committee for the Management of the Environmental Assessment Process for Category A Projects	Regulates the Statute and Rules of Procedure for the Evaluation Committee for the Management of the Environmental Assessment Process for Category A Projects	SERIE I NO 30.pdf (mj.gov.tl)
Ministerial Diploma No. 46/2017, of 2 August	Regulation on Detailed Requirements for Screening, Scoping and Terms of Reference, Environmental Impact Statements and Environmental	Regulates the Detailed Requirements for Screening, Scoping and Terms of Reference, Environmental Impact Statements and Environmental Management Plans for Environmental Assessment	SERIE I NO 30.pdf (mj.gov.tl)

	Management Plans for Environmental Assessment		
Ministerial Diploma No. 47/2017, of 2 August	Regulation on Public Consultation Procedures and Requirements during the Environmental Assessment Process	Regulates the Public Consultation Procedures and Requirements during the Environmental Assessment Process	SERIE I NO 30.pdf (mj.gov.tl)
2020			
Decree-Law No. 6/2020, of 6 February	Legal Regime for the Protection and Conservation of Biodiversity	Establishes the legal framework for the protection and conservation of biodiversity, complementing the provisions of the national system of protected areas and implementing the Environmental Framework Law	SERIE_I_NO_6_A.pdf (mj.gov.tl)
Resolution of the National Parliament No. 1/2020, of 19 February	On Combating Climate Change	Reaffirms the commitment to global efforts to combat climate change and to meet the targets set in the Paris Agreement	https://www.mj.gov.tl/jornal/public/docs/2020/serie_1/SERIE_I_NO_8.pdf
Decree-Law No. 37/2020, of 23 September	Sale, Import, and Production of Bags, Packaging, and Other Plastic Items	Defines the requirements for the sale, import, and production of bags, packaging, and other plastic items	https://www.mj.gov.tl/jornal/public/docs/2020/serie_1/SERIE_I_NO_39.pdf
Decree-Law No. 39/2020, of 23 September	Maritime Authority System	Creates the Maritime Authority System, abbreviated as SAM, and the National Maritime Authority, abbreviated as AMN.	https://www.mj.gov.tl/jornal/public/docs/2020/serie_1/SERIE_I_NO_39.pdf
Decree-Law No. 41/2020, of 25 September	Creates the Public Company Bee Timor-Leste and Approves Its Statutes	Creates the public company responsible for ensuring the supply of water and basic sanitation to citizens	https://www.mj.gov.tl/jornal/public/docs/2020/serie_1/SERIE_I_NO_39_A.pdf
Government Resolution No. 42/2020, of 23 October	National Policy for Water Resources Management	Defines a clear, transparent programmatic guideline delineating the entities responsible for the definition, regulation, and supervision in the management of national water resources, allowing the development of this sector by guiding the actions of various stakeholders in a coordinated manner	https://www.mj.gov.tl/jornal/public/docs/2020/serie_1/SERIE_I_NO_43_B.pdf
Government Resolution No. 43/2020, of 23 October	National Policy for Public Water Supply	Defines a clear, transparent programmatic guideline delineating the entities responsible for the definition, regulation, and supervision of the public water supply sector	https://www.mj.gov.tl/jornal/public/docs/2020/serie_1/SERIE_I_NO_43_B.pdf
Law No. 12/2020, of 2 December	Civil Protection Law	Establishes the general legal framework essential for regulating activities to prevent and respond to situations of accidents, disasters, or calamities caused by human or natural actions	https://www.mj.gov.tl/jornal/public/docs/2020/serie_1/SERIE_I_NO_49.pdf

2021			
Decree of the Government No. 27/2021, of 15 December	Approves the Internal Regulation of the Commission for Maritime Affairs	Creates the Commission for Maritime Affairs (CAM) as a body endowed with competencies to exercise effective political control over the actions of the National Maritime Authority (AMN) and to ensure national-level political coordination of the entities and bodies comprising the Maritime Authority System (SAM)	SERIE I No 50.pdf (mj.gov.tl)
Decree-Law No. 35/2021, of 29 December	Spatial Planning Instruments	Establishes the legal regime for spatial planning instruments, defining the coordination regime between the national and municipal levels of the territorial management system and the regime for approval, execution, and evaluation of territorial management instruments	SERIE I NO 52.pdf (mj.gov.tl)
2022			
Government Resolution No. 8/2022, of 1 March	National Climate Change Policy	Approves the National Climate Change Policy.	https://www.mj.gov.tl/jornal/public/docs/2022/serie_1/SERIE I NO 10.pdf
Decree-Law No. 26/2022, of 19 May	Support Programme for the Plantation of "Ai Parapa"	Stimulates the creation of nurseries for "Ai Parapa" plants, expands plantation areas, combats coastal erosion, improves Timor-Leste's position in the international carbon market, and contributes to establishing Timor-Leste as a tourist destination.	https://www.mj.gov.tl/jornal/public/docs/2022/serie_1/SERIE I NO 20C.pdf
Decree-Law No. 39/2022, of 8 June	First Amendment to Decree-Law No. 5/2011, of 9 February, on Environmental Licensing	Aligns the existing legal framework on environmental licensing with the creation of this public institute, as well as the procedures for environmental licensing	https://www.mj.gov.tl/jornal/public/docs/2022/serie_1/SERIE I NO 23.pdf
Decree-Law No. 41/2022, of 8 June	Creates the National Environmental Licensing Authority, I.P., and Approves Its Statutes	Creates the ANLA, whose mission is to ensure the implementation of legislation on environmental licensing, being responsible for project evaluation, classification and issuance of environmental licenses, and monitoring the activities of public and private entities	https://www.mj.gov.tl/jornal/public/docs/2022/serie_1/SERIE I NO 23.pdf
Decree-Law No. 42/2022, of 8 June	Creates the Designated National Authority for Combating Climate Change, I.P., and Approves Its Statutes	Creates the Designated National Authority for the flexibility mechanisms of the Kyoto Protocol to the United Nations Framework Convention on Climate Change, with the mission of approving the participation of national public and	https://www.mj.gov.tl/jornal/public/docs/2022/serie_1/SERIE I NO 23.pdf

		private entities in projects within the context of clean development and emissions trading	
Decree-Law No. 47/2022, of 13 July	Fisheries Cooperatives	Provides fisheries cooperatives with a more comprehensive legal framework, complementary to the legal regime set out in the Cooperatives Law, allowing the development of fisheries in Timor-Leste	https://www.mj.gov.tl/jornal/public/docs/2022/serie_1/SERIE_I_NO_28.pdf
2023			
Law No. 9/2023, of 5 April	Social Economy Law	Establishes the general framework for the organisation of entities included or to be included in the third sector, that of the social economy	SERIE_I_NO_13_A.pdf (mj.gov.tl)
Government Resolution No. 16/2023, of 12 April	Approves the National Strategic Plan for Tourism Development 2023–2030	Establishes objectives and proposes actions to be taken by the Government to accelerate and enhance the development of the tourism sector	SERIE_I_NO_14_SUPLAMENTO.pdf (mj.gov.tl)
Ministerial Diploma No. 24/GMAP/5/2023, of 18 May	Marine Protected Area of Samba Sembilan, Municipality of Liquiçá	Establishes an aquatic nature reserve and regulates its management with the objective of improving the abundance and diversity of fish stocks	Áreas marinhas Liquiçá e Ataúro.pdf
Ministerial Diploma No. 25/GMAP/5/2023, of 18 May	Marine Protected Area of Ataúro Island, Municipality of Ataúro	Establishes an aquatic nature reserve and regulates its management with the objective of improving the abundance and diversity of fish stocks	Áreas marinhas Liquiçá e Ataúro.pdf
Decree-Law No. 27/2023, of 31 May	Creates the Timor-Leste Tourism Authority, I.P., and approves its Statutes	Creates the Timor-Leste Tourism Authority, I.P. (ATTL, I.P.), to promote, empower, coordinate, monitor, and develop private and public sector entities operating in the tourism area, contributing to the promotion and strengthening of tourism and to the country's economic development	SERIE I N. 20 NORMAL.pdf (mj.gov.tl)
Decree-Law No. 28/2023, of 31 May	Bases for Tourist Activities	Establishes the bases for the organisation, monitoring, supervision, promotion, and encouragement of tourist activities	SERIE I N. 20 NORMAL.pdf (mj.gov.tl)
Decree-Law No. 29/2023, of 31 May	Organisational Structure of the National Maritime Authority	Defines, within the scope of the Maritime Authority System (SAM), the structure, organisation, operation, and competences of the National Maritime Authority (AMN)	SERIE I N. 20 NORMAL.pdf (mj.gov.tl)
Government Resolution No. 27/2023, of 31 May	National Ocean Policy of Timor-Leste	Establishes a guide for Timor-Leste in developing a specific implementation plan designed to achieve its vision of a healthy and safe ocean that sustains livelihoods, prosperity, and the social and cultural values of the	https://www.mj.gov.tl/jornal/public/docs/2023/serie_1/SERIE%20I%20N.%2020%20SUPLEMENTO%20I.pdf

		people of Timor-Leste in a fair and equitable manner	
Decree-Law No. 35/2023, of 31 May	National Commission of the United Nations Educational, Scientific and Cultural Organization of Timor-Leste	Establishes the National Commission of the United Nations Educational, Scientific and Cultural Organization of Timor-Leste (UNESCO), hereinafter referred to as UNC	SERIE I N. 20 NORMAL.pdf (mj.gov.tl)
Ministerial Diploma No. 29/2023, of 31 May	Expansion of the Sustainable Community-Based Natural Resource Management Mechanism in Watersheds	Provides guidelines and procedures for the broad dissemination of community-based natural resource management	https://www.mj.gov.tl/jornal/public/docs/2023/serie_1/SERIE_I_NO_20_C.pdf
Decree-Law No. 45/2023, of 14 June	Approves the National Spatial Planning	A spatial planning instrument that defines the strategic framework of Timor-Leste's territory and constitutes the reference framework to be considered in the preparation of the remaining instruments of the national spatial planning system and in the harmonisation of the State's sectoral public policies, as well as, where necessary, the safeguarding of values and resources of recognised national interest	SERIE_I_NO_22_NORMAL.pdf (mj.gov.tl)
Ministerial Diploma No. 31/2023, of 14 June	Internal Regulation of the National Institute of Science and Technology	Establishes the internal regulation of the National Institute of Science and Technology, I.P., hereinafter referred to as INCT, defining the rules that regulate its organic and functional structure	SERIE_I_NO_22_NORMAL.pdf (mj.gov.tl)
Government Decree No. 7/2023, of 14 June	Municipal Spatial Planning for Bobonaro	Land use regime, with specific rules for the use, occupation, and transformation of land, with evident impact on the coastal strip or in areas adjacent to watercourses, lagoons, or wetlands	https://www.mj.gov.tl/jornal/public/docs/2023/serie_1/SERIE_I_NO_22_NORMAL.pdf
Government Decree No. 7/2023, of 14 June	Municipal Spatial Planning for Ermera	Land use regime, with specific rules for the use, occupation, and transformation of land, with evident impact on the coastal strip or in areas adjacent to watercourses, lagoons, or wetlands	https://www.mj.gov.tl/jornal/public/docs/2023/serie_1/SERIE_I_NO_22_NORMAL.pdf
Decree-Law No. 82/2023, of 23 November	Administrative Authority of Ataúro	Establishes the Administrative Authority of Ataúro as a legal person under public law, defining its fundamental organisation	https://www.mj.gov.tl/jornal/public/docs/2023/serie_1/SERIE_I_NO_44_B.pdf
Decree-Law No. 83/2023, of 23 November	Regulation of the Special Development Fund of Ataúro (FEDA)	Regulates the Special Development Fund of Ataúro, hereinafter referred to as FEDA	https://www.mj.gov.tl/jornal/public/docs/2023/serie_1/SERIE_I_NO_44_B.pdf

Decree-Law No. 87/2023, of 19 December	Creates the Land and Maritime Boundary Office	Creates the Land and Maritime Boundary Office and establishes its membership, responsibilities, and rules of operation, including the development of Timor-Leste's Blue Economy Policy	SERIE I NO 47 C.pdf (mj.gov.tl)
2024			
Decree-Law No. 13/2024, of 20 March	Ship Registration	Establishes and regulates the requirements and procedures for granting Timorese nationality to vessels and the consequent right to fly the Timorese flag	https://www.mj.gov.tl/jornal/public/docs/2024/serie_1/SERIE_I_NO_12.pdf
Decree-Law No. 14/2024, of 20 March	Technical Inspection of Ships	Establishes the standards and procedures applicable to the control and technical inspection of ships and their equipment, as well as the certification and accreditation of inspectors, to ensure the prevention of navigation accidents, the protection of human life at sea, and the mitigation of pollution caused by ship navigation in the marine environment under the jurisdiction of the Democratic Republic of Timor-Leste	https://www.mj.gov.tl/jornal/public/docs/2024/serie_1/SERIE_I_NO_12.pdf
Ministerial Diploma No. 44/2024, of 12 June	Approves the Model of the Environmental Licence Certificate	Approves the model of the Environmental Licence Certificate for Mining Activities	https://www.mj.gov.tl/jornal/public/docs/2024/serie_1/SERIE_I_NO_24.pdf
Ministerial Diploma No. 45/2024, of 12 June	Approves the Model of the Environmental Licence Certificate	Approves the model of the Environmental Licence Certificate for Petroleum Operations	https://www.mj.gov.tl/jornal/public/docs/2024/serie_1/SERIE_I_NO_24.pdf
2025			
Law No. 1/2025, of 12 March	Measures for the Protection of Urban Planning Legality	Regulates the administrative acts necessary to ensure compliance with legislation relating to the licensing of urban development operations and construction, as well as adherence to territorial management instruments, including those impacting the coastal zone	https://www.mj.gov.tl/jornal/public/docs/2025/serie_1/SERIE_I_NO_11.pdf
Government Decree No. 2/2025, of 14 March	Establishes the Fees Payable in the Context of Environmental Licensing Procedures	Approves the fees payable within the environmental licensing procedure	https://www.mj.gov.tl/jornal/public/docs/2025/serie_1/SERIE%20I%20N.11A.pdf
Government Decree No. 4/2025, of 2 April	Municipal Spatial Planning for Baucau	Approves the Baucau Municipal Spatial Plan (PMOT)	https://www.mj.gov.tl/jornal/public/docs/2025/serie_1/SERIE_I_NO_14_SUPPLEMENT O.pdf
Government Decree No. 5/2025, of 2 April	Municipal Spatial Planning for Lautém	Approves the Lautém Municipal Spatial Plan (PMOT)	https://www.mj.gov.tl/jornal/public/docs/

			2025/serie_1/SERIE%20I%20N.14.pdf
Government Decree No. 6/2025, of 2 April	Municipal Spatial Planning for Viqueque	Approves the Viqueque Municipal Spatial Plan (PMOT)	https://www.mj.gov.tl/jornal/public/docs/2025/serie_1/SERIE%20I%20N.14.pdf
Decree-Law No. 13/2025, of 4 June	Statutes of the National University of Timor Lorosa'e	Approves the Statutes of the National University of Timor-Lorosa'e as a public higher education institution with a national remit, adapted to innovation and the advancement of knowledge, and promoting interdisciplinary learning alongside cultural, artistic, technological and scientific education, within an international framework, whilst valuing and encouraging the work of its teaching staff, researchers, students and non-teaching staff	https://www.mj.gov.tl/jornal/public/docs/2025/serie_1/SERIE_I_NO_23.pdf
Decree-Law No. 26/2025, of 13 August	Legal Framework for International Marine Scientific Research International	Approves the legal framework for marine scientific research applicable to marine scientific research activities in national maritime waters, when carried out at the request of foreign states or international organisations	https://www.mj.gov.tl/jornal/public/docs/2025/serie_1/SERIE_I_NO_33.pdf
Decree-Law No. 36/2025, of 15 October	Legal framework for the management and use of State-owned property	It establishes the rules governing the use of State-owned public property and the new rules governing the use and disposal of State-owned private property	https://www.mj.gov.tl/jornal/?q=node/13
Government Resolution No. 67/2025, of 24 October	Designates 5 June as National Sea Day	Designates 5 June as National Sea Day, dedicated to the celebration and preservation of the sea and marine biodiversity in Timor-Leste, and to the organisation of activities aimed at raising awareness and promoting active participation by society, particularly children and young people, in its protection	https://www.mj.gov.tl/jornal/?q=node/20
APPROVAL, RATIFICATION AND ACCESSION TO INTERNATIONAL LAW INSTRUMENTS			
2002			
Resolution of the National Parliament No. 1/2002, of 20 May	Ratifies the Charter of the United Nations	Ratifies the Charter of the United Nations, signed on 26 June 1945 in San Francisco, United States of America, which entered into force internationally on 24 October 1945	https://www.mj.gov.tl/jornal/public/docs/2002_2005/resolucao_parlamento/1_2002.pdf
2004			
Resolution of the National Parliament No. 10/2004, of 9 December	Ratifies the Convention of the International	Considering that Timor-Leste, as a maritime nation, must be fully integrated into the international maritime community and develop	resolucao_parlamento/10_2004.pdf (mj.gov.tl)

	Maritime Organization	all activities and areas of intervention related to the sector, this ratification provides a mechanism for cooperation between governments in the field of regulation and governmental practices concerning technical issues of all kinds that affect maritime transport involved in international trade	
Resolution of the National Parliament No. 11/2004, of 9 December	Which Ratifies, for Accession, the Statutes of the World Tourism Organization	Recognising that tourism is the fastest-growing economic activity worldwide, and that it is a driving force for economic development, job creation, and poverty reduction	resolucao parlamento/11_2004.pdf (mj.gov.tl)
2006			
Resolution of the National Parliament No. 7/2006, of 26 April	Which Ratifies the Accession to the United Nations Framework Convention on Climate Change	To combat climate change by limiting global warming to less than 1.5 degrees Celsius or, at least, to less than 2 degrees Celsius. The Paris Agreement brings together countries that collectively commit to reducing greenhouse gas emissions, strengthening resilience to climate change, and supporting developing countries in their climate-related efforts	serie1_no8.pdf (mj.gov.tl)
Resolution of the National Parliament No. 8/2006, of 26 April	Which Ratifies the Accession to the International Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, particularly in Africa	Determined to take appropriate measures to combat desertification and mitigate the effects of drought for the benefit of present and future generations	serie1_no8.pdf (mj.gov.tl)
Resolution of the National Parliament No. 9/2006, of 26 April	Ratifies the Accession to the International Convention on Biological Diversity	To conserve biological diversity, promote the sustainable use of its components, and ensure the fair and equitable sharing of the benefits arising from the utilisation of genetic resources	serie1_no8.pdf (mj.gov.tl)
2008			
Resolution of the National Parliament No. 6/2008, of 7 May	Ratifies, for Accession, the Kyoto Protocol to the United Nations Framework Convention on Climate Change	Achieve quantified commitments for emission reductions, promote sustainable development, and foster cooperation among signatory parties in developing policies and measures to combat climate change	serie1_no17.pdf (mj.gov.tl)
2009			
National Parliament Resolution No. 26/2009, of 9 September	United Nations Convention Against	Promote cooperation to more effectively prevent transnational organised crime	serie1_no32a.pdf (mj.gov.tl)

	Transnational Organized Crime		
National Parliament Resolution No. 27/2009, of 9 September	Protocol to the United Nations Convention Against Transnational Organized Crime, Concerning the Smuggling of Migrants by Land, Sea and Air	Complements the United Nations Convention Against Transnational Organized Crime	serie1_no32a.pdf (mj.gov.tl)
National Parliament Resolution No. 30/2009, of 9 September	Ratifies the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer	Operationalises the UNFCCC, committing industrialised countries and economies in transition to limit and reduce greenhouse gas emissions (GHG) according to agreed individual targets, contributing to the environment and health	serie1_no32a.pdf (mj.gov.tl)
National Parliament Resolution No. 30/2009, of 9 September	Vienna Convention for the Protection of the Ozone Layer	Serves as a framework for global efforts to protect the ozone layer	serie1_no32a.pdf (mj.gov.tl)
National Parliament Resolution No. 30/2009, of 9 September	Montreal Protocol on Substances that Deplete the Ozone Layer	Protect the ozone layer by phasing out the production and consumption of various substances responsible for ozone depletion	serie1_no32a.pdf (mj.gov.tl)
National Parliament Resolution No. 30/2009, of 9 September	Approves the 1997 Amendments to the Montreal Protocol on Substances that Deplete the Ozone Layer, Signed in Montreal on 16 September 1987	Approve amendments to previously signed protocols	serie1_no32a.pdf (mj.gov.tl)
National Parliament Resolution No. 30/2009, of 9 September	Montreal Protocol on Substances that Deplete the Ozone Layer – London Amendments	Approve amendments to previously signed protocols	serie1_no32a.pdf (mj.gov.tl)
National Parliament Resolution No. 30/2009, of 9 September	Montreal Protocol on Substances that Deplete the Ozone Layer – Copenhagen Amendments	Approve amendments to previously signed protocols	serie1_no32a.pdf (mj.gov.tl)
National Parliament Resolution No. 30/2009, of 9 September	Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer	Approve amendments to previously signed protocols	serie1_no32a.pdf (mj.gov.tl)
2012			
National Parliament Resolution No. 17/2012, of 27 December, rectified by Rectification Declaration No. 2/2012, of 27	United Nations Convention on the Law of the Sea (UNCLOS)	Establishes a comprehensive legal framework governing the use of the oceans and their resources, balancing divergent interests among States, including maritime	https://www.mj.gov.tl/jornal/public/docs/2013/serie_1/serie1_no4B.pdf

December, published in the Official Gazette, Series I, No. 4, of 30 January 2013		rights, and protecting the marine environment	https://www.mj.gov.tl/jornal/?q=node/2189
2016			
National Parliament Resolution No. 6/2016, of 18 May	Ratifies, for Accession, the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage	Ratify, for accession, the Convention for the Safeguarding of the Intangible Cultural Heritage, adopted by the 32nd session of the UNESCO General Conference, in Paris, on 17 October 2003	SERIE I NO 19.pdf (mj.gov.tl)
National Parliament Resolution No. 7/2016, of 18 May	Ratifies, for Accession, the UNESCO Convention for the Protection of the World Cultural and Natural Heritage	Identify, protect, and preserve cultural and natural sites of outstanding universal value and encourage cooperation to safeguard these sites for the current and future generations, in accordance with the 17th session of the UNESCO General Conference, in Paris, on 16 November 1972.	SERIE I NO 19.pdf (mj.gov.tl)
2017			
National Parliament Resolution No. 11/2017 of 17 May	Ratifies the Paris Agreement under the United Nations Framework Convention on Climate Change	Establishes a plan to limit global warming (not exceeding 1.5°C by the end of the century) and to combat climate change	https://www.mj.gov.tl/jornal/public/docs/2017/serie_1/SERIE_I_NO_19.pdf
National Parliament Resolution No. 14/2017 of 25 July	Ratifies, for Accession, the Constitution of the Food and Agriculture Organization of the United Nations	Within the framework of combating poverty and hunger, working to strengthen nutrition and the incomes of populations, as well as promoting agriculture and sustainable rural development	https://www.mj.gov.tl/jornal/public/docs/2017/serie_1/SERIE_I_NO_28_A.pdf https://www.mj.gov.tl/jornal/public/docs/2017/serie_1/SERIE_I_NO_28_A.pdf
2019			
Resolution of the National Parliament No. 15/2019, of 27 August	Ratification of the Treaty between the Democratic Republic of Timor-Leste and Australia Establishing Their Respective Maritime Boundaries in the Timor Sea	Ratifies the Maritime Boundary Treaty between Timor-Leste and Australia	SERIE I NO 33 B.pdf (mj.gov.tl)
2022			
Resolution of the National Parliament No. 9/2022, of 11 May	Ratifies, for Accession, the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW)	Establishes international requirements for the training, certification, and watchkeeping of maritime professionals, including seafarers, navigation officers, and other crew members	https://www.mj.gov.tl/jornal/public/docs/2022/serie_1/SERIE_I_NO_19.pdf

Resolution of the National Parliament No. 10/2022, of 11 May	Ratifies, for Accession, the International Convention for the Prevention of Pollution from Ships, 1973/1978 (MARPOL 73/78) and the 1997 Protocol	Aims to prevent marine environmental pollution from ships by establishing strict standards for pollutant emissions and waste disposal at sea	https://www.mj.gov.tl/jornal/public/docs/2022/serie_1/SERIE_I_NO_19.pdf
Resolution of the National Parliament No. 13/2022, of 18 May	Ratifies, for Accession, the Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREG)	Ensures the safety of navigation and prevents collisions at sea by providing a set of rules to be followed by operating vessels	SERIE I NO 20.pdf (mj.gov.tl)
Resolution of the National Parliament No. 14/2022, of 18 May	Ratifies, for Accession, the International Convention for the Safety of Life at Sea, 1974 (SOLAS) and the Protocols of 1978 and 1988	Establishes minimum standards for the construction, equipment, and operation of ships to ensure the safety of human life at sea. This Convention includes the International Ship and Port Facility Security Code (ISPS)	SERIE I NO 20.pdf (mj.gov.tl)
Resolution of the National Parliament No. 34/2022, of 20 July	Ratifies, for Accession, the Agreement on the Privileges and Immunities of the International Tribunal for the Law of the Sea, adopted in New York on 23 May 1997	Establishes the privileges and immunities necessary for the performance of the Tribunal's functions	RESOLUÇÃO DO PARLAMENTO NACIONAL N.º 34-2022.pdf
2023			
National Parliament Resolution No. 1/2023, of 25 January	Ratifies the Doha Amendment to the Kyoto Protocol to the United Nations Framework Convention on Climate Change	Adopts the amendment to the international legal instrument, recognising the importance of the issue of climate change. The Doha Amendment introduces an additional value of tradable pollution credits.	SERIE I NO 3 A.pdf (mj.gov.tl)
Government Resolution No. 8/2023, of 15 March	Approves Timor-Leste's Accession to the Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing	Provides a legal framework enabling port states to take effective measures to prevent, deter and eliminate illegal, unreported and unregulated fishing by strengthening port state control	https://www.mj.gov.tl/jornal/public/docs/2023/serie_1/SERIE_I_NO_10.pdf
2024			
National Parliament Resolution No. 22/2024, of 17 July	Ratifies the Protocol Amending the Marrakesh Agreement	Eliminates harmful subsidies that contribute to overfishing, overcapacity, and illegal, unreported, and unregulated (IUU)	https://www.mj.gov.tl/jornal/public/docs/2024/serie_1/SERIE_I_NO_29.pdf

	Establishing the World Trade Organization (Agreement on Fisheries Subsidies)	fishing. The adoption of this agreement is crucial to ensure the sustainability of global marine resources, promoting responsible fishing practices and protecting the marine environment.	
National Parliament Resolution No. 23/2024, of 17 July	Ratifies the Protocol of Accession of the Democratic Republic of Timor-Leste to the World Trade Organization	Accession of Timor-Leste to the World Trade Organization	
National Parliament Resolution No. 26/2024, of 20 September	Ratifies the Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction	Provides a legal framework to address the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction, aiming to protect the ocean, promote equity and justice in the use of marine genetic resources, reduce environmental degradation, combat climate change, and prevent biodiversity loss	https://www.mj.gov.tl/jornal/public/docs/2024/serie_1/SERIE_I_NO_37_A.pdf
2025			
National Parliament Resolution No. 52/2025, of 27 November	Approves the Declaration on the Admission of the Democratic Republic of Timor-Leste to the Association of Southeast Asian Nations	To approve the Declaration on the Admission of the Democratic Republic of Timor-Leste to the Association of Southeast Asian Nations, signed in Malaysia on 26 October 2025	https://www.mj.gov.tl/jornal/public/docs/2025/serie_1/SERIE_I_NO_48_A.pdf

Parts II and III of this document, will outline the initiatives planned to develop the legal framework necessary for the implementation of the national Blue Economy.

3.5.3 Governance Partners

The Government collaborates with a range of national and international partners in the preservation and conservation of coastal and marine areas, as well as in the sustainable development of Timor-Leste based on natural marine resources.

The mission to protect and conserve marine resources and to develop Timor-Leste's Blue Economy requires a joint effort by the Government, local authorities, the public sector, associations and non-governmental organisations, the scientific and academic community, local communities and other private sector entities. Ensuring cooperation among these entities is fundamental to guarantee the preservation of marine ecosystems and the sustainability of natural resources for present and future generations, as well as for the sustainable economic development of Timor-Leste.

Also, within the framework of the Blue Economy, Timor-Leste will continue to strengthen bilateral and multilateral cooperation by deepening partnerships and sharing knowledge. In addition to regional cooperation with its neighbours, Australia and Indonesia, Timor-Leste will prioritise

cooperation with other countries in the region and with those outside it with whom it has strong bilateral relations.

In addition, Timor-Leste will draw on experience, knowledge-sharing and opportunities for cooperation, with a view to overcoming common challenges within the CPLP, the g7+, ASEAN, the Pacific Islands Forum, SIDS group, the Coral Triangle Initiative, and the UN. International organisations such as the WB, ADB and WTO, are also important for the realisation of Timor-Leste's ambition for national, regional and global sustainable development.

By adopting the strategic framework for the Blue Economy, the Government is thus providing a clear vision and a roadmap for the next ten years. This vision will enable development partners to align their priorities within their Strategic Cooperation Programmes, whilst leadership and ownership of the commitments remain the responsibility of the Timorese State.

PART II

4. STRATEGIC FRAMEWORK FOR TIMOR-LESTE'S BLUE ECONOMY

«The Blue Economy revolves around the wealth generated and the employment created, but also around sustainability. A thriving Blue Economy depends on the enhancement of biodiversity, renewable and geological resources, technological development and scientific innovation, as well as the expansion of maritime transport and ports, and tourism. »
Oceano Azul Foundation (International Ocean Advocacy)

The Blue Economy encompasses all aquatic spaces, including ocean, seas, coasts, lakes, rivers and groundwater, bearing in mind that most ocean problems originate on land, namely through marine litter (including plastic); pollution from industrial and domestic effluents and agricultural waste, and the growth of coastal urban areas. This adds pressure on the ocean, which is also affected by the challenges of overfishing, illegal, unreported and unregulated fishing, water warming, acidification, eutrophication and deoxygenation of the ocean, with the consequent loss of marine biodiversity and degradation of marine and coastal ecosystems.

Economic growth cannot be achieved and sustained on a planet in ecological crisis. Society cannot divorce itself from nature and its understanding. In this sense, there is a need for a more global, holistic and cross-cutting vision that contributes to a “scientific revolution” of integration, provided by ecology.⁷⁷

The reports of the Intergovernmental Panel on Climate Change (IPCC) describe the negative impacts and warn of the need for society and public authorities to adapt to a changing climate. The warnings from the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) have also highlighted the role of humans as landscape modellers and species managers in ecosystems, as well as being responsible for the environmental and social problems we face globally today.⁷⁸

Humans are responsible for the negative impact on ecosystems and biodiversity on the planet, which places us in a potential new geological era, the Anthropocene (a term proposed to describe the current geological era, characterised by the significant impact that human activities have on the Earth's climate and ecosystems).

The Policy and Action Plan for the Promotion of a Resilient and Sustainable Economy of the Sea in Timor-Leste aims to contribute to positive change to achieve quantitative and tangible results (outputs) and qualitative results, namely in changing behaviours (outcomes), by bringing people and society in general together around its implementation.

Based on the Blue Economy concept adopted for Timor-Leste, the Government has defined a **vision**, an objective and a mission.

The Government of Timor-Leste thus shares the **vision** that:

Investing in the growth of coastal, marine, and maritime sectors ensures the sustainable and inclusive development of all Timorese, while promoting a healthy ocean based on scientific knowledge.

And if this is Timor-Leste’s vision, the accompanying motto is: **Timor is TASI** — Timor, Azul, Sustentável e Inovador (Timor, Blue, Sustainable and Innovative).

The main **objective** of the Policy and Action Plan for the Promotion of a Resilient and Sustainable Economy of the Sea in Timor-Leste is:

To define and implement strategic and integrated policies and initiatives, utilising scientific and community knowledge, that transform the maritime and coastal area under Timorese jurisdiction into a source of economic, social, and environmental development opportunities – sustainable and inclusive.

This objective is even more pertinent considering that, in addition to the existing challenges faced by the country as a Least Developed Country (LDC) and a Small Island Developing State (SIDS), Timor-Leste confronts the escalating challenges of climate change.

Therefore, the Government of Timor-Leste assumes the **mission** to:

Promote the knowledge, protection, conservation, and sustainable use of marine and coastal natural resources at both national and international levels, to ensure the dual goals of climate change resilience and the economic, social, and environmental development of current and future generations.

Table 12: Strategic Framework for the Blue Economy of Timor-Leste

Vision	Investing in the growth of coastal, marine, and maritime sectors ensures the sustainable and inclusive development of all Timorese, while promoting a healthy ocean based on scientific knowledge
Objective	To define and implement strategic and integrated policies and initiatives, utilising scientific and community knowledge, that transform the maritime and coastal area under Timorese jurisdiction into a source of economic, social, and environmental development opportunities – sustainable and inclusive
Mission	To promote the knowledge, protection, conservation, and sustainable use of marine and coastal natural resources at both national and international levels,

	to ensure the dual goals of climate change resilience and the economic, social, and environmental development of current and future generations
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5. AXES, PILLARS, AND STRATEGIC OBJECTIVES OF THE BLUE ECONOMY

«The urgent challenge to protect our common home includes a concern to bring the whole human family together to seek a sustainable and integral development, for we know that things can change.»

Pope Francis (Encyclical Letter *Laudato Si'*, 2015)

This implementation strategy for the Policy and Action Plan for the Promotion of a Resilient and Sustainable Economy of the Sea in Timor-Leste is structured around four main axes of action that support the overall vision, each underpinned by guiding pillars and strategic objectives.

AXIS 1: RESEARCH, EDUCATION, AND COMMUNICATION (KNOWING THE SEA)

Pillar 1: Marine Scientific Research

- Legal Framework for International Marine Scientific Research
- Survey and Study of Timor-Leste's Marine Biodiversity

Pillar 2: Education, Training, and Strategic Communication

- Education and Vocational Training
- Marine Research and Education Centres
- Marine and Underwater Cultural Heritage
- Strategic Communication and Maritime Culture

AXIS 2: MARINE BIODIVERSITY PRESERVATION AND CONSERVATION (RESPECTING THE SEA)

Pillar 3: Marine and Coastal Management and Protection

- Maritime Spatial Planning and Management
- Marine Protected Areas
- Transboundary Cooperation
- Strengthening Environmental Impact Assessment Regimes

Pillar 4: Marine Biodiversity Conservation

- Coral Reefs
- Mangroves
- Algae and Seagrasses
- Cetaceans, Sea Turtles, Sharks, Dugongs, and Other Marine Species

Pillar 5: Combating Marine Pollution and Waste Management

Pillar 6: Carbon Sequestration

AXIS 3: SUSTAINABLE USE (LIVING WITH THE SEA)

Pillar 7: Blue Tourism

- Coastal Tourism
- Maritime or Nautical Tourism
- Nature-Based Tourism

Pillar 8: Living Resources Exploitation

- Fisheries and Aquaculture
- Marine Biotechnology

Pillar 9: Exploration of Non-Living Resources and Energy Production

- Hydrocarbon Production
- Renewable Energy
- Salt Production
- Mining
- Desalination

Pillar 10: Maritime Transport and Port and Logistics Development

- Infrastructure
- Port and Logistics Development
- Maritime Transport and Navigation
- Shipbuilding and Ship Repair

Pillar 11: Maritime Security

- Capacity Building, Surveillance, and Enforcement
- Monitoring and International Cooperation

AXIS 4: SUPPORTING THE IMPLEMENTATION OF THE BLUE ECONOMY (CROSS-CUTTING MEASURES)

Pillar 12: Water and Basic Sanitation

Pillar 13: Management and Conservation of Wetlands and Transition Zones

Pillar 14: Rural Development, Trade and Industry

Pillar 15: Ocean Satellite Account

Pillar 16: Planning, Financing and Monitoring Instruments

5.1 AXIS 1: Research, Education, and Communication (KNOWING THE SEA)

«Education can, and must, contribute to a new vision of sustainable global development.»
UNESCO

To protect, conserve, and promote the marine and coastal environment, it is necessary to understand the natural capital and the importance of ecosystem services in fostering economic development that uses natural resources sustainably.

The balance between sustainable economic development and the ocean's resilience to support different human activities is the very definition of the Blue Economy. In this sense, only through sound science will it be possible to better understand the sea (Tasi) adjacent to the national territory—the national maritime space. Only by knowing the ocean, which belongs to all of us, can we make informed decisions that lead to effective public policies.

Furthermore, to contribute to sustainable development, it is essential to educate children and young people about the ocean's importance and its relevance to planetary health and balance. It is crucial that children and youth — and all citizens — have access to the knowledge, skills, and values that promote respect for nature, particularly the marine environment.

Creating a blue generation requires not only the integration of these topics into school and academic curricula, but also the promotion of training initiatives for teachers (with adequate educational resources and materials) to build knowledge, critical thinking, and ultimately shift behaviours.

Finally, communicating knowledge and deepening ocean literacy will allow Timorese people to reconnect with the sea and explore the full range of opportunities it offers — both upstream and downstream — not only in terms of income generation and employment, but also in the sustainable use of marine resources.

Communication about the Blue Economy will foster greater national understanding, cooperation, and management of existing marine resources, so that they may be safeguarded for future generations.

5.1.1 PILLAR 1: Marine Scientific Research

«Knowing more about the ocean and the life it supports is fundamental to our survival and the health of the planet. The ocean is our life-support system.»
Sylvia Earle

According to the OECD, “science has been, and will continue to be, a powerful driver of economic development in the seas and oceans”.⁷⁹ In this regard, promoting the sustainable development of the ocean economy requires a clear understanding of the state of the ocean — both now and in the future.

UNCLOS enshrines the right of all States and competent international organisations to conduct marine scientific research. One of UNCLOS's key objectives is to promote international cooperation in marine research — among States, between States and international organisations, and among international organisations.

In this context, it is essential to strengthen Timor-Leste's national scientific and technological capacities and stimulate the development of new areas of action that enhance ocean knowledge.

The Government will therefore work to build national capacity to research, understand, and protect the marine environment. This will be done particularly through international cooperation, whether with States or with international organisations.

To this end, the Government will invest in generating knowledge about its marine territory by supporting scientific research projects grounded in robust science, led by multidisciplinary teams and supported by appropriate technology. These efforts will guide decision-making on the sustainable use of marine resources—including fisheries—and improve understanding and conservation of the country's unique biodiversity.

Marine scientific research will also support risk assessments related to climate change and help identify strategies to mitigate this pressing threat.

Given the institutional weaknesses in this area, Timor-Leste will continue to rely on international cooperation to achieve its goals, drawing on the experience and expertise of international partners — including universities, agencies, NGOs, and the private sector.

The Government recognises the need to develop and adopt a legal framework to guide and regulate international scientific research in the marine environment, aiming to strike a balance between scientific exploration and environmental protection, while safeguarding Timor-Leste's sovereign rights.

Accordingly, the Government will establish the legal framework required to regulate the authorisation process for marine scientific research activities conducted by foreign States or international organisations within Timor-Leste's maritime space. This framework will comply with Timor-Leste's international commitments and will be distinct from the legal regime governing the National Maritime Space Planning and Management.

5.1.1.1 Legal Framework for International Marine Scientific Research

«Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries. »

Sustainable Development Goal 14.a

UNCLOS, to which Timor-Leste is a State Party, establishes in Article 238 the right of all States and competent international organisations to conduct marine scientific research. It also explicitly states in Articles 239 and 242, that States and competent international organisations must promote and facilitate the development and conduct of marine scientific research, as well as international cooperation in marine scientific research for peaceful purposes.

In addition, the Agreement under UNCLOS on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction (BBNJ Agreement) — for which Timor-Leste deposited its instrument of ratification with the United Nations on 26 September 2024 — strengthens Timor-Leste’s commitment to marine biodiversity protection. The Agreement provides that States must promote international cooperation in the field of marine scientific research, scientific capacity-building, and the development and transfer of marine technology, in line with UNCLOS and in support of the objectives of the BBNJ Agreement.

In accordance with Articles 2 and 3 of the BBNJ Agreement, its objective is to ensure the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction, now and in the long term, through the effective implementation of relevant provisions of UNCLOS and through enhanced international cooperation and coordination.

Notably, Article 12(1) of the BBNJ Agreement — concerning the notification of activities related to marine genetic resources in areas beyond national jurisdiction and associated digital sequence information — requires States to take necessary legislative, administrative, or policy measures to ensure that such information is reported to the Clearing-House Mechanism, as provided in the Agreement.

Furthermore, the Programme of the Ninth Constitutional Government of Timor-Leste identifies the fulfilment of the United Nations 2030 Agenda for Sustainable Development as one of its top priorities. This includes Sustainable Development Goal 14: “Conserve and sustainably use the oceans, seas and marine resources for sustainable development,” which calls for increased i) scientific knowledge, ii) research capacity, and iii) marine technology transfer to improve ocean health and enhance the contribution of marine biodiversity to the development of developing countries — particularly small island developing States and least developed countries, such as Timor-Leste.

The Government Programme also reinforces the need for internal coordination to promote the growth of Timor-Leste’s Blue Economy, including the development of a broad range of activities such as marine scientific research.

In addition, Decree-Law No. 6/2020 of 6 February, which establishes the legal regime for biodiversity protection and conservation, stipulates that marine scientific research is subject to specific legislation.

Accordingly, the Government will begin by implementing its international commitments under the United Nations framework and by pursuing the national goal of strengthening cooperation and enhancing Timor-Leste’s scientific and technological capacity.

Strategic Objectives:

- Contribute to the achievement of United Nations Sustainable Development Goal 14.
- Promote the development of new areas of action that enhance ocean knowledge in Timor-Leste and the training of Timorese scientific personnel, particularly young researchers, fostering cooperation and international exchange of knowledge on the ocean and, in particular, on the maritime space of Timor-Leste, which, given its scale and its natural

resources and marine biodiversity, constitutes a unique natural laboratory of global significance.

- Promote ocean knowledge to combat the loss and degradation of biodiversity in marine ecosystems, particularly those resulting from the impacts of climate change, including ocean warming, deoxygenation and acidification, as well as pollution, including plastic pollution, and unsustainable use.
- Regulate the authorisation procedure for marine scientific research activities conducted by foreign States or international organisations within the national maritime space, considering international recommendations and best practices on marine scientific research, without prejudice to the sovereign rights and jurisdiction of Timor-Leste.

5.1.1.2 Survey and Study of Timor-Leste's Marine Biodiversity

«Challenge 2: Protect and restore ecosystems and biodiversity: Understand the effects of multiple stressors on ocean ecosystems, and develop solutions to monitor, protect, manage, and restore ecosystems and their biodiversity under changing environmental, social, and climate conditions.»

Ocean Decade 2030

In Timor-Leste, scientific research and studies in coastal and marine areas have been conducted by international nature conservation organisations, in collaboration with the Timorese Government and local NGOs. Noteworthy among these — though not exhaustively — are the following studies and reports:

- The Timor-Leste Coastal/Marine Habitats Mapping for Tourism and Fisheries Development Project, 2009.⁸⁰
- *National Ecological Gap Assessment for Timor-Leste 2010.*⁸¹
- *Marine Megafauna Surveys in Timor Leste: Identifying Opportunities for Potential Ecotourism,* 2012.⁸²
- *A Rapid Marine Biological Assessment of Timor-Leste 2013.*⁸³
- *Compilation of the Relevant Scientific information submitted by parties to CBD, 2015* (Timor-Leste, p.65-76).⁸⁴
- *Interdisciplinary baseline ecosystem assessment surveys to inform ecosystem-based management planning in Timor-Leste: Final Report, 2017.*⁸⁵
- *Marine Rapid Assessment of the Ataúro Island and Liquiçá District of Timor-Leste* (CTC-MAP, 2017, unpublished).
- National Coastal Vulnerability Assessment and Designing of Integrated Coastal Management and Adaptation Strategic Plan for Timor-Leste.⁸⁶
- National State of Oceans and Coasts 2018: Blue Economy Growth of Timor-Leste.⁸⁷
- *Status of Marine Information for Conservation Management in Timor-Leste, 2018.*⁸⁸

These reports provide baseline information on fisheries and marine resources for ecosystem-based management of Timor-Leste's coastal waters, as well as surveys on marine biodiversity. These studies have informed management decisions and contributed to evaluating the effectiveness of actions undertaken for the sustainable management of coastal fisheries and the long-term benefits for the people of Timor-Leste (food security, sustaining ocean-based livelihoods, and ensuring coastal protection).

Moreover, most of the reports produced on Timor-Leste in this area conclude that the waters surrounding Timor-Leste support high fish diversity and areas of high localised coral cover. However, they also identify areas of concern that require continuous monitoring of potential impacts from ocean acidification, which leads to reduced coral growth and survival in the region.

They also provide recommendations and best practices, particularly regarding the use of data as a baseline for long-term monitoring of the status and trends of Timor-Leste's habitats, marine resources, and biodiversity, as well as the implementation of area-based management tools for the use of Timor-Leste's coastal habitats and ecosystem resources.

Considering these reports and other important findings — and considering the existing knowledge gap regarding Timor-Leste's marine biodiversity and the general lack of capacity and resources — it is evident that Timor-Leste must strengthen its internal capabilities. In fact, Timor-Leste plays a key role in conserving marine biodiversity within the Coral Triangle, particularly regarding Timor-Leste's national maritime space.

Therefore, for Timor-Leste to adequately protect, manage, and restore the marine biodiversity within its national maritime space, it is necessary to carry out a comprehensive survey and study of existing marine biodiversity, to ensure that decision-making and legislative processes are based on sound scientific knowledge — without which good ocean governance is not possible.

In connection with these issues, the Government will also seek to develop a meteorology and geophysics system to support biodiversity assessment and climate change impact needs in the country, recognising that such systems are fundamental to cross-cutting areas within the Blue Economy, particularly maritime navigation, agriculture, livestock, tourism, and other public services.

It is within this context, and with the understanding that the ocean is a vast interconnected marine ecosystem, that Timor-Leste seeks to promote international and multidisciplinary research based on global and regional scientific partnerships.

Strategic Objectives:

- Conduct the first comprehensive survey and study of Timor-Leste's marine biodiversity.
- Establish a system of international scientific and technological partnerships to carry out the first comprehensive survey and study of Timor-Leste's marine biodiversity.
- Build a framework for scientific and technological collaboration and exchange, working towards the adoption and implementation of sound ocean governance policies and measures within Timor-Leste's maritime space.

- Undertake studies to assess the feasibility of establishing a meteorology and geophysics laboratory, linked to institutional and human capacity-building needs, through partnerships and international cooperation.
- Encourage research projects within Timor-Leste’s national maritime space and in the Coral Triangle, addressing global, regional and national challenges and threats.
- Support early-career researchers and promote the development of scientific knowledge in Timor-Leste, incorporating traditional and local knowledge into the process.
- Facilitate scientific and technological exchange through international cooperation and researcher mobility.
- Ensure the participation of youth, women and persons with disabilities in scientific research activities and in national and international exchanges.
- Conduct studies and research that improve the position of women within the Blue Economy and have a direct and inclusive impact on the future of the population.
- Create conditions for the Marine Biodiversity Survey and Study mechanism to be permanently updated, including a monitoring and evaluation system capable of effectively measuring the conservation status of marine biodiversity within the national maritime space.
- Invest in the Marine Biodiversity Survey and Study mechanism with the long-term objective of developing it into a Centre of Excellence in the Blue Economy, serving as a hub for innovation, training and advisory services for the sector.

5.1.2 PILLAR 2: Education, Training, and Strategic Communication

«Raising children with an awareness of the importance of contributing to ocean conservation — which is now seriously affected by the negative impacts of exploitation and climate change — is crucial if it is to remain the planet’s primary life support system. »

Oceano Azul Foundation

Education, vocational training, and strategic communication are essential pillars for the development of the Blue Economy. These three components not only enable the empowerment of individuals and communities but also raise awareness among key national stakeholders about the need for an integrated and sustainable approach to the use of ocean resources.

Investing in people by equipping them with the right tools to take charge of their own development is an investment in achieving the goals of the Blue Economy and, in turn, in driving economic growth that respects nature and promotes broad participation and social equity.

The Blue Economy will also open new pathways for employment, including self-employment, leading to improved living standards, poverty reduction, and — most importantly — social development.

5.1.2.1 Education and Vocational Training

«Education and vocational training are indeed a means to achieve a more sustainable future, as they provide the foundation for development that respects the planet’s limits and promotes social justice. »

UMCLA, Universidade Aberta

The Government will develop programs that teach about marine biodiversity and its conservation needs. This goal can be achieved through both formal and informal education, including the facilitation of specific skills and qualifications through vocational training in areas of the Blue Economy — ranging from marine biology and water resource management to fisheries and aquaculture, sustainable tourism, and renewable energy technologies, among others.

Accordingly, the Government will develop a National Ocean Literacy Programme, whose core objectives include promoting Timor-Leste's maritime identity in all its dimensions — from social and natural sciences to the promotion of tourism activities and water sports, all of which are essential components of the maritime tourism sector.

This approach goes beyond educating or informing the public or stakeholders in marine and maritime sectors about the ocean's importance. It aims to foster an inclusive approach that engages society to promote sustainable actions for the protection and use of the sea and ocean. To this end, integrating ocean literacy into school curricula is fundamental so that students can understand the ocean's importance, its physical, chemical, and geological features, as well as human interactions with it.⁸⁹

The Government will also develop the Blue Economy Youth Ambassadors Programme, supporting knowledge and capacity-building among emerging young leaders in this field. This program aims to establish a platform enabling young people to contribute to sustainable development and to drive meaningful change in Timor-Leste and globally, through increased participation in the formulation and implementation of public policies that foster innovation and a balance between economic opportunities and ecological stewardship.

Investing in children and youth is a strategic investment in Timor-Leste's sustainable future. By empowering young professionals, the country is cultivating a generation capable of advancing science-based solutions, promoting the responsible use of resources, and inspiring broader community engagement in Blue Economy initiatives.

To ensure the development of the Blue Economy, the Government will make a significant effort to develop professionals in the various blue growth sectors, providing Timor-Leste with a cadre of qualified human resources capable of supporting this strategic development policy.

In this regard, and also as a way of overcoming one of the main obstacles to national development, the Government is committed to developing an integrated and multifaceted plan for the qualification of professionals in the maritime sector, in all municipalities of the country and in all cross-cutting areas, aware that this is a medium to long-term ambition that requires considerable strategic investment.

From a non-exhaustive point of view, the following areas of specialisation are considered critical for the training of the new Blue Economy Professional Framework:

1. Sustainable Aquaculture and Mariculture:

- Focus: Techniques for the environmentally responsible and economically viable farming of marine and freshwater species (fish, shellfish, algae).

- Sub-areas: Marine biotechnology applied to aquaculture, aquaculture systems engineering, aquatic organism health and nutrition, aquatic farm management.
- Relevance to Timor-Leste: Increased food production, economic diversification, reduced pressure on wild fisheries.

2. Coastal and Marine Resource Management (CMRM):

- Focus: planning, management and conservation of coastal and marine ecosystems, including fishery resources, protected areas and coastal development zones.
- Sub-areas: marine ecology, oceanography, law of the sea, marine spatial planning, environmental impact assessment, fisheries management, sustainable coastal tourism.
- Relevance to Timor-Leste: biodiversity protection, climate change adaptation, sustainable use of fisheries and tourism resources.

3. Marine Renewable Energy:

- Focus: development and implementation of technologies for energy generation from the oceans (waves, tides, currents, ocean thermal gradients).
- Sub-areas: ocean engineering, renewable energy, marine energy resource assessment, environmental impact of ocean infrastructure.
- Relevance to Timor-Leste: reduction of dependence on fossil fuels, energy security, development of new industries.

4. Blue Biotechnology and Bioprospecting:

- Focus: research and development of products and processes from marine organisms for applications in various industries (pharmaceutical, cosmetics, food, energy).
- Sub-areas: marine molecular biology, marine microbiology, marine natural product chemistry, marine pharmacology.
- Relevance to Timor-Leste: discovery of new compounds and high value-added products from the rich marine biodiversity.

5. Logistics and Value Chain of the Blue Economy:

- Focus: optimisation of production, processing, transport and marketing processes for marine-related products and services.
- Sub-areas: supply chain management, port logistics, processing and conservation of marine products, marketing of marine products.
- Relevance to Timor-Leste: improving the efficiency and competitiveness of the fisheries and aquaculture sectors, adding value to local products.

Strategic Objectives:

- Develop and implement the National Ocean Literacy Programme.
- Ensure that the national core curriculum for lower secondary (3rd cycle) and secondary education includes content promoting ocean literacy and climate resilience.
- For pre-school and primary education (1st and 2nd cycles), where curriculum revision is not feasible in the short or medium term, prepare teaching materials and complementary

content to be distributed to schools and teachers, promoting ocean literacy and climate resilience.

- Develop school projects throughout the academic year, through an integrated approach combining teacher training and student learning, supported by complementary content.
- Develop higher education programmes and postgraduate courses in marine sciences and the Blue Economy.
- Promote the integration of education and research, strengthening national knowledge and capacity by investing in innovation in technologies and practices essential to the sustainable use and conservation of marine resources.
- Strengthen alignment with the United Nations Decade of Ocean Science for Sustainable Development (2021–2030), contributing to the achievement of SDG 14 and commitments undertaken at the United Nations Conferences of the Parties on Oceans, Climate and Biodiversity.
- Ensure skilled human resources and workforce capacity in industries related to the Blue Economy, through sustainable practices, including fisheries and aquaculture, maritime transport, tourism, renewable energy and waste management, particularly in coastal areas and wetlands, among others.
- Build the capacity of other Government partners in promoting the national Blue Economy, namely public administration officials, the private sector and civil society.
- Train a new national generation in professional fields to drive sustainable Blue Economy development over the next 5 to 10 years, focusing on areas of specialisation critical for the growth and sustainable management of marine resources.
- Strengthen the capacities of the National Vocational Training Centre – Becora, I.P., and CNFPE, and create training and professional internship opportunities in Timor-Leste and abroad.
- Promote the skills and qualifications of future leaders of Timor-Leste through the Blue Economy Young Ambassadors Programme, including national scientists, diving professionals, conservationists and a technically skilled workforce from the public and private sectors.

5.1.2.2 Marine Research and Education Centres

«Marine Research and Education Centres will tell the story of Timor-Leste's rich marine biodiversity and the responsibility each of us has to conserve it for future generations.»

Kay Rala Xanana Gusmão

The Government will establish a network of Marine Research and Education Centres dedicated to the research, study and promotion of marine and coastal ecosystems. These centres, in addition to supporting studies on marine biodiversity, ecology, and climate change, will serve to educate and empower diverse audiences — with a priority on youth and communities — about the country's natural wealth and the related needs for environmental conservation.

The centres will operate as a network in close collaboration between the Government, public administration, universities and research institutions, local communities and non-governmental organisations.

Timor-Leste's extensive and diverse marine biodiversity is expected to attract scientists, researchers, academics, students, and conservationists from around the world who wish to gain a better understanding of the country's ocean resources, and their global significance and contribution to biodiversity.

The Marine Research and Education Centres will complement the development and implementation of the National Ocean Literacy Programme and the Survey and Study of Marine Biodiversity of Timor-Leste. They will also contribute to decentralising government policies and measures and incorporating local knowledge and community practices into Blue Economy processes.

The Marine Research and Education Centres, strategically located near terrestrial and marine protected areas, may also serve as monitoring hubs for marine species — including cetaceans and dugongs — as well as other important migratory species.

The aim is to combine educational and public awareness actions with the establishment of marine science study centres and laboratories for research, knowledge, and conservation.

Priority will be given to the establishment of the first centre on Ataúro Island, to raise national and international awareness of the urgent threat of decline or even extinction of endangered marine species, including ecosystems and habitats such as coral reefs and mangrove zones on Ataúro.

Strategic Objectives:

- Promote knowledge generation and prevent the collapse of marine biodiversity, pollution and degradation of the marine environment.
- Provide the necessary conditions to host “marine research laboratories” for the advancement of biodiversity studies.
- Promote and support the work of researchers, academics and students.
- Promote the sustainable development of local communities.
- Promote sustainable tourism and the multiplication of community spaces with a maritime vocation, including sports activities such as snorkelling and diving.
- Develop content under the National Ocean Literacy Programme with local involvement, adapted to the local context.
- Support the objectives of establishing marine protected areas and the development and monitoring of their respective management plans.
- Support the maritime sovereignty, sovereign rights and jurisdiction of Timor-Leste, including through coordinated actions by the Government and local communities for surveillance and security of maritime spaces.

5.1.2.3 Marine and Underwater Cultural Heritage

«Marine cultural heritage is not only a testimony to the history of humanity, but also a vital resource for education and the preservation of cultural traditions.»

Gregory W. McIntosh

Timor-Leste possesses a rich cultural heritage, including its creation myth that tells the story of a friendship between a young boy and an old crocodile, which transformed into the island of Timor so that the boy and his descendants could live and benefit from abundant land and marine resources.

Validating existing cultural knowledge and practices in the development of the Blue Economy in Timor-Leste will ensure that development initiatives are rooted in the values and aspirations of the people.

Timor-Leste's coastal and fishing communities possess valuable knowledge and skills passed down through generations. This is evident during low tide along the coastline, where rock formations create pools that trap fish and other crustaceans, which are then used for local consumption or small-scale sale. This is an example of how Timorese people interact with their marine ecosystems.

Cultural values and beliefs can be applied in today's context to intersect with environmental conservation practices. This would allow prevailing attitudes to be reshaped, which can lead to better natural resource management and improved biodiversity conservation outcomes in Timor-Leste.

The Government will therefore establish a Museum of the Sea, on the seafront in Dili, dedicated to exhibiting and interpreting themes related to the sea and ocean. This museum will be created in coordination with the Marine Research and Education Centres, to represent various parts of the country, and will include the following topics:

- The maritime history of Timor-Leste, including the arrival of the first inhabitants of the island from the Asia-Pacific region, the construction of traditional boats, traditional marine resource exploitation, and all cultural areas associated with the sea, including dance, song, gastronomy, and art.
- The marine ecology of Timor-Leste, including permanent and temporary exhibitions on biodiversity.
- Local communities most dependent on the sea and water resources, including coastal communities as well as those living near river basins and hydrographic resources (streams, lagoons, waterfalls, and other wetlands), showcasing their ways of life and traditions.
- Educational and social activity spaces, including interactive and social engagement activities for visitors of all ages, both national and international.

While Timor-Leste is not currently a State Party to the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage — which defines “underwater cultural heritage” as “all traces of human existence having a cultural, historical or archaeological character which have been partially or totally, periodically or continuously, submerged for at least 100 years” — it does have domestic legal provisions applicable to national cultural heritage through Decree-Law No. 33/2017 of 6 September. These provisions aim to ensure the legal protection, preservation, safeguarding, and enhancement of Timorese cultural heritage.

According to Decree-Law No. 33/2017, “underwater archaeological heritage” refers to “movable or immovable remains and surrounding areas that attest to human life, located entirely or partly in underwater environments, obtained through scientific archaeological research or isolated finds, which constitute testimony with civilisational or cultural value and of relevant cultural interest.”

The same decree-law also states that “underwater archaeological heritage, consisting of all movable or immovable property and surrounding areas, located fully or partially in underwater environments and recovered within Timor-Leste’s jurisdiction, is the property of the Timorese State,” and that its management shall be defined in specific legislation.

The protection, management, study, and promotion of underwater cultural heritage is an essential component of the development of the Blue Economy in Timor-Leste and must therefore be addressed from the outset.

To this end, and with a view to the proper organisation of maritime space as a whole, the Government will promote coordination between legal frameworks, ensuring compatibility between the preservation and management of underwater archaeological heritage and the planning and management of maritime space, as well as with other aspects that require harmonisation, such as the protection and preservation of the marine environment.

The Museum of the Sea and the Marine Research and Education Centres will serve as repositories and training hubs for underwater archaeology and preservation techniques of underwater cultural heritage, stimulating international cooperation, including the identification of heritage sites located in the maritime space, inland waters, or other water resources.

Strategic Objectives:

- Provide a space for the exhibition, education and public engagement of objects and artefacts related to the sea, safeguarding cultural heritage and reinforcing national maritime identity.
- Raise awareness of environmental issues and promote the conservation of the ocean, inland waters and other water resources.
- Promote and safeguard the history and traditions of Timorese communities.
- Promote the development of underwater archaeology and underwater cultural heritage in the country.
- Collect and preserve remains and movable or immovable assets, as well as their surrounding areas, which bear witness to human life and are located wholly or partially in a submerged environment, obtained through scientific archaeological research or chance discoveries, and which constitute evidence of civilisational or cultural value and are of significant cultural interest.
- Promote traditional ecological knowledge and community-based management as central elements for the conservation and dissemination of knowledge regarding underwater archaeological heritage.
- Invest in capacity building, including through regional collaboration, and through the development of specific legislation in this field.

5.1.2.4 Strategic Communication and Maritime Culture

«The development of a national Blue Economy requires people and capital. Their mobilisation and engagement depend on a common solution — communication.»
Álvaro Sardinha, Blue Economy Competence Centre

Strategic communication is essential to promote a resilient and sustainable ocean economy in Timor-Leste.

In addition to public policies defined by the Government — including education and vocational training, as previously noted — strategic communication and civic education must also be incisive and continuous to drive the desired change through tangible outcomes: changes in societal behaviour.

Moreover, strategic communication not only ensures stakeholder engagement — from governments to civil society, the private sector, and communities — but also fosters trust and transparency, especially concerning public investment and cooperation or partnerships among various actors.

The Government has developed community engagement programs and campaigns, including the following:

- The **“My Sea, My Timor” Campaign** (*Ha’u nia Tasi, Ha’u nia Timor*), aimed at promoting the development potential of the Blue Economy in the country, with a focus on the preservation, conservation, and sustainable use of marine resources, while also encouraging initiatives and programs for sustainable national economic development;
- **“The Sea Starts Here! The Blue Economy from Mountain to Sea” Campaign**, which seeks to instil a holistic and interconnected approach to Timor-Leste’s Blue Economy, linking terrestrial and marine ecosystems. The campaign is based on the premise that economic practices and activities in mountainous and inland water areas affect ocean health — and vice versa;
- **“National Ocean Week Programme— 5 to 8 June”**, designed to raise awareness and celebrate ocean-related issues annually. These dates are intended to celebrate World Environment Day, National Sea Day and Ataúro Marine Environment Day on 5 June, and United Nations World Oceans Day on 8 June;
- **“Blue Economy Youth Ambassadors Programme”**, which involves motivated and qualified young voices in the sustainable development of the nation’s Blue Economy;
- **“Peixe Azul”** (Blue Fish) campaign, to be extended to all municipalities, with the aim of raising awareness among communities across the country about plastic pollution affecting the seas and oceans, as well as promoting improvements in plastic waste collection and management systems.

These programs will foster shared understanding and collective responsibility for the benefits of the Blue Economy and to implement the national motto: **Timor is TASI—Timor, Azul, Sustentável e Inovador** (in English: Timor, Blue, Sustainable and Innovative).

Through strategic communication targeting specific audiences, it is possible to cultivate a sense of ownership and responsibility for implementing this transformation, as well as engaging people with diverse skills and values.

It is also possible to promote maritime culture, as described in Part I of this document — namely, the advancement of its seven internationally recognised fundamental principles — while simultaneously strengthening international cooperation in this area.

In addition to supporting the inclusion of ocean literacy in school curricula, knowledge about the ocean can also be enhanced through other public and private institutions. This includes educational and social initiatives that allow everyone to learn about the ocean and marine resources, as well as the complexities and challenges they face, to promote more sustainable behaviours.

Strategic Objectives:

- Strengthen national maritime identity and its respective culture and core values, including respect for nature and for people: sustainable and inclusive development.
- Promote the image of Timor-Leste nationally and internationally as a nation that promotes environmental preservation and conservation, including in the fight against climate change.
- Promote international and regional cooperation in matters related to the Blue Economy and the promotion and preservation of the ocean.
- Promote the fight against marine pollution, particularly plastic waste, and promote the improvement of plastic collection and management systems.
- Promote economic diversification by developing investment opportunities, notably in new economic sectors and industries, both to encourage Timorese citizens to participate actively in the development of these sectors and to attract foreign direct investment in Timor-Leste, in compliance with applicable national legislation and regulations, including coastal protection rules.
- Validate existing cultural knowledge and practices in the development of the Blue Economy in Timor-Leste, ensuring that development initiatives are rooted in the values and aspirations of the People of Timor-Leste.
- Promote broad public participation and foster good governance and transparency in public policies.
- Mobilise and inspire individuals and organisations to promote and protect nature.
- Develop and implement public awareness campaigns on Blue Economy policies, initiatives and objectives.
- Promote digital platforms for access to information and data monitoring on the Blue Economy: Digital Blue Economy Platform – TasiLink.

5.2 AXIS 2: Marine Biodiversity Preservation and Conservation (RESPECTING THE SEA)

«We are all part of the web of life. The loss of biodiversity threatens the balance of ecosystems and the services they provide, which are essential for human well-being.»

Convention on Biological Diversity

There is an intrinsic and ancestral connection between culture and marine ecosystems in Timor-Leste, which is an asset for the nation’s sustainable development processes, and for the achievement of the goals of the Policy and Action Plan for the Promotion of a Resilient and Sustainable Economy of the Sea in Timor-Leste.

As stated in Part I, Timor-Leste is committed to the protection of the ocean and the preservation of marine biodiversity at national, regional, and global levels.

The core principles enshrined in the Constitution, the guiding principles outlined in the current legal framework, and the international commitments undertaken by Timor-Leste, reflect the synergy between the country's cultural knowledge and practices related to the sea, the values and aspirations of the Timorese people, and the political commitment to environmental conservation and the sustainable use of natural resources.

The legal recognition of Tara Bandu, a traditional custom that is part of Timor-Leste's culture regulating the relationship between humans and their surrounding environment — and used to protect both terrestrial and marine ecosystems — reflects this context.

Environmental and marine biodiversity protection refers to measures taken to preserve and conserve natural resources, flora, fauna, and marine habitats, and involves awareness, preservation, and sustainable use of the ocean, seas, rivers, estuaries, and associated ecosystems.

It is within this framework that marine and coastal protection and management will be implemented — typically defined as the set of practices, policies, and strategies aimed at conserving and sustainably using marine resources and coastal areas.

Appropriate measures will be adopted to strengthen the preservation and conservation of marine biodiversity, particularly through marine spatial planning and management of the national maritime space — considered the backbone of the Blue Economy in terms of an integrated and ecosystem-based approach to maritime space, ensuring land-sea interaction — and the revision of Marine Protected Areas in the country, formalising their designation and implementing their respective management plans.

The Legal Framework for Maritime Spatial Planning and Management will serve as a fundamental pillar for the development of a sustainable ocean economy in Timor-Leste, in coordination with other relevant sectoral areas, such as environment, economy, energy, and tourism.

Marine Protected Areas are an essential tool for promoting and preserving the marine environment and should be used in a complementary manner — first and foremost — within the legal framework on maritime spatial planning and management.

In summary, biodiversity conservation is a central element of the Policy and Action Plan for the Promotion of a Resilient and Sustainable Economy of the Sea in Timor-Leste and represents a cross-cutting pillar of good governance.

5.2.1 PILLAR 3: Maritime and Coastal Management and Protection

«The State must ensure the integrated management of the marine coast as a basis for the conservation, protection and sustainable use of marine resources, ecosystems and species.»

Environmental Framework Law of Timor-Leste

Maritime and coastal management is fundamental to ensuring the health of marine and coastal ecosystems, the preservation of biodiversity, the provision of ecosystem services, as well as the protection and development of coastal communities and human well-being.

In this context, it is essential to take into account Integrated Coastal Zone Management (ICZM), a continuous and dynamic process involving the participation of various sectors of society and government, local communities and the private sector, to define and implement policies and actions aimed at the sustainable use of coastal resources, namely through the coordinated implementation of planning instruments, such as Coastal Zone Management Plans (POOC).

Strategic Objectives:

- Conserve biodiversity by protecting marine species and their habitats, including coastal areas and complex, biodiversity-rich ecosystems such as coral reefs and mangroves.
- Ensure the sustainable use of marine resources, notably in the fisheries and tourism sectors, so as not to compromise the health and sustainability of these resources for future generations.
- Ensure present and future food security through the sustainable management of marine and coastal resources.
- Promote economic diversification through sea-based economic activities, such as fisheries and tourism, which depend on a healthy and resilient ocean and coastline.
- Develop a national plan for the efficient management of the National Protected Areas System, in an integrated manner with all other national policies and spatial planning instruments, and based on sound scientific information, with particular attention to marine protected areas.
- Contribute to the 2022 Kunming-Montreal Global Biodiversity Framework, in particular the target of protecting 30% of global terrestrial and marine areas by 2030 through protected areas and other effective conservation measures.
- Combat negative environmental impacts by reducing pollution and the destruction of marine and coastal species, habitats and ecosystems, thereby also contributing to climate change mitigation and adaptation.
- Create and implement mechanisms for maritime spatial planning and management of national maritime space, to consider its use in a holistic and integrated manner, balancing environmental preservation and conservation objectives with the economic development of communities and the country.
- Ensure proper articulation between the preparation of Maritime Spatial Planning and Management and other legislation, such as the Basic Law on Territorial Planning, for Integrated Coastal Zone Management (ICZM), including specific planning instruments such as Coastal Zone Management Plans (POOC).
- Involve coastal communities, including key stakeholders in economic activities such as fisheries, aquaculture, agriculture and tourism, among others, in decision-making on marine resource management, validating their knowledge and traditional practices.
- Support and promote the practice of Tara Bandu.
- Invest in sound science through research, studies and continuous monitoring, linking knowledge to planning and decision-making processes, and to the monitoring and evaluation of traditional practices and public policies, in accordance with Axis 1 and its respective pillars.
- Promote education, training and strategic communication to empower and raise awareness among the population regarding the importance of marine and coastal conservation, aligning active citizenship with planning and ensuring sustainable economic growth of communities, in accordance with Axis 1 and its respective pillars.

5.2.1.1 Maritime Spatial Planning and Management

«Maritime Spatial Planning is indeed a management framework that uses a defined area to meet multiple objectives. It's not a single tool, but rather an approach that guides decision-making about how to use marine spaces and resources.»

Secretariat of the Convention on Biological Diversity

Interconnectivity and three-dimensionality are two fundamental characteristics that distinguish maritime space from terrestrial space. This distinction significantly impacts the planning and management of maritime space, as it is composed of surface, water column, seabed and subsoil, which allows for different uses or activities to occur simultaneously in the same area or volume.

Therefore, maritime spatial planning and management must be guided by the paradigm of space utilisation, whereby maritime space is organised as a whole, aiming at the sustainable, rational and efficient economic development of marine resources and ecosystem services, while ensuring the preservation, protection and restoration of natural values and coastal and marine ecosystems, and maintaining the good environmental status of the marine environment and coastal and transitional waters.

In this regard, maritime spatial planning and management must be informed by a strategic vision of different spaces and their existing and potential uses and activities, including, where applicable, cross-border cooperation and coordination with legal regimes on land and the coastal zone, as well as with other water resources such as inland and transitional waters.

Such coordination must consider existing legislation, particularly the Environmental Framework Law, the Land Use Planning Framework Law, and the legal regime for territorial planning instruments, especially the National Land Use Plan.

Maritime spatial planning and management must organise, over time and space, the various uses and activities at sea through planning instruments that are legally binding and serve as the basis for the allocation of exclusive usage rights over specific areas or volumes. Indeed, marine uses and activities tend to be capital and time intensive and high-risk, which makes legal certainty and procedural clarity essential, as well as the coordination of overlapping maritime activities.

A lack of coordination between different uses and activities inevitably leads to conflicts and may therefore contribute to the low number of maritime uses and the weak development of the ocean economy in Timor-Leste.

The Government will always act with the goal of enhancing the value of Timor-Leste's maritime space and marine natural resources, in accordance with Article 139(1) of the Constitution, which states: "The resources of the soil, the subsoil, the territorial waters, the continental shelf and the exclusive economic zone, which are essential to the economy, shall be owned by the State and shall be used in a fair and equitable manner in accordance with national interests."

The new legal regime will define the system for maritime spatial planning and management, based on planning instruments that must consider land-sea interactions — particularly in relation to terrestrial land-use instruments and those applicable to coastal and transitional waters.

As regards management, the new legal framework will distinguish between common and exclusive use of the national maritime space. Common use refers to the general public's shared enjoyment, which must comply with applicable planning instruments and must not harm the good environmental status of the marine environment and coastal zones. Exclusive use, by contrast, involves reserving a specific area or volume of maritime space for environmental, marine resources or ecosystem services that exceed the benefits of common use and offer a public interest advantage. Such use may only take place under an exclusive use title.

The granting of exclusive use titles will depend on whether the uses or activities are foreseen in the relevant planning instruments and will follow a rigorous legal decision-making process, ensuring legal certainty, transparency, and safeguarding the rights of stakeholders to participation and access to information.

It will also be essential to define the rules and criteria for resolving conflicts between competing uses and activities, including the need for relocation and the resulting rights and obligations.

This legal act will also include a dedicated economic and financial regime, enshrined in law, which will define cases of exemption. It is important to note that the maritime spatial planning and management regime will not apply to fisheries, international marine scientific research activities conducted under international law, or to defence, security or civil protection activities.

The law will also set out the procedures for amending, reviewing, or partially or fully suspending planning instruments — for example, whenever required to serve the national interest, due to evolving environmental conditions, changing maritime safety requirements, or in light of economic and social development prospects, or following the designation of a marine protected area (MPAs) or adoption of a management plan.

A working group will be established to support and monitor the development and implementation of the maritime spatial planning and management regime, promoting appropriate coordination of interests.

Strategic Objectives:

- Promote the implementation of the Blue Economy in Timor-Leste through the planning and management of the national maritime space.
- Ensure that national maritime spatial planning and management is carried out through a participatory process, both at the planning stage and during implementation and resource management.
- Plan the protection and use of “inland areas” in an integrated manner with water resources management, considering impacts on coastal areas, as well as the specific needs of the coastline and marine ecosystems.
- Improve the use of the national maritime space and help prevent conflicts between coastal uses and activities, ensuring more appropriate land–sea interaction.
- Ensure proper articulation between the preparation of Maritime Spatial Planning and Management and other legislation, such as the Basic Law on Territorial Planning, for

Integrated Coastal Zone Management (ICZM), including specific planning instruments such as Coastal Zone Management Plans (POOC).

- Prevent natural degradation and degradation resulting from human activities, as well as support the recovery of degraded areas and enhance natural, historical, cultural and landscape heritage.
- Encourage socio-economic activities compatible with the sustainable development of coastal zones, ensure and promote compatibility between different coastal uses and activities, and minimise environmental, economic and social risks and impacts.
- Align maritime spatial planning and management with the national plan for the National Protected Areas System, in an integrated manner with all other national policies and territorial planning instruments.
- Contribute to the implementation of the NAPA as a planning tool identifying areas for immediate action with proposed adaptation measures, including the protection of coastal ecosystems against the impacts of climate change.

5.2.1.2 Marine Protected Areas

«Marine protected areas are like biological savings accounts. They ensure that the richness of marine life is preserved in a world where we are witnessing the rapid loss of marine ecosystems and species.»

Sylvia Earle

There is no single, universally recognised definition of Marine Protected Areas (MPAs) under international law, although several related concepts are defined in various ways.

For example, Article 2 of the Convention on Biological Diversity defines a "protected area" as a "geographically defined area which is designated or regulated and managed to achieve specific conservation objectives".

The Food and Agriculture Organization of the United Nations (FAO) defines an MPAs in the context of the Code of Conduct for Responsible Fisheries as "any marine geographical area that is afforded greater protection than the surrounding waters for biodiversity conservation or fisheries management purposes." According to this definition, a fisheries management zone may be considered an MPA, even if it is not created specifically for conservation but to manage certain fish stocks.

Although they are not always designated as MPAs, the designation of marine and coastal zones for the purpose of marine environmental protection and conservation has long been a common practice. Initially, the protected zones that would now be described as MPAs were established in territorial seas. With the expansion of coastal State jurisdiction in the EEZ, MPAs have been established further offshore, though still within national jurisdiction.

Over the years, significant regional and multilateral efforts have been made to establish MPAs and related concepts. Establishing an MPA can be a starting point for protecting a given marine area from pollution or preventing the adverse effects of other threats such as climate change. It is not an end or a catch-all solution to threats facing the marine environment.

This means that certain threats require different types or combinations of responses. Therefore, when an MPA is established, regulations should address multiple factors and threats and include the effective implementation of management and monitoring programs.

MPAs also require a comprehensive approach and appropriate coordination and cooperation at regional and multilateral levels. This aspect is critical to avoid conflicts between States and organisational mandates. Today, ocean governance entails complex challenges at various levels and jurisdictions, potentially leading to overlaps and gaps. These challenges are amplified by institutional fragmentation and the lack of a holistic approach to ocean governance, which hinders integrated ecosystem management.

Timor-Leste is strategically located within the Coral Triangle, which carries added responsibility for conserving marine biodiversity in the region, noting that Ataúro Island is one of the world's most biodiverse marine areas.

Thus, the classification, management, and monitoring of MPAs in the seabed, subsoil, water column, and surface of Timor-Leste's maritime space is a national priority. It represents the country's fulfilment of international obligations and its commitment to placing the protection and conservation of the marine environment at the core of social and economic progress.

Accordingly, the designation of an MPA should confer a legal protection status suitable for maintaining biodiversity and ecosystem services and must be legally binding for all public and private entities, incorporating coordination mechanisms based on an ecosystem approach.

The designation of an MPA must also comply with the principles and objectives provided in current environmental legislation, particularly the Environmental Framework Law, and safeguard other instruments, such as the National Biodiversity Strategy and Action Plan and the National Protected Areas System, which includes the aquatic nature reserves of Bobonaro (Balibó) and Dili (Ataúro), as well as the important Nino Konis Santana National Park, recognised for its significance within the Coral Triangle.

To this end, the Government will draft the legal regime for the classification, management, and monitoring of MPAs, which will define the State bodies and services responsible for designating MPAs and preparing their respective management and monitoring plans, to be approved by a Resolution of the Council of Ministers.

Beyond these plans and ensuring alignment with existing legal frameworks, in particular the legal framework governing the management and planning of the national maritime space, the law will define the authority to carry out MPAs inspections, supervision, and enforcement of sanctions for any legal violations. The drafting of the sanction regime will be coordinated with laws on marine pollution and the civil or criminal liability of offenders, in accordance with legislation in force.

The law will also provide for cases in which the suspension of plans and MPAs management measures is allowed. Note, however, that suspension may only occur in exceptional, well-justified circumstances and after consultation with a working group, to be created under the same legal instrument.

The working group will be responsible for supporting the classification and management of MPAs, monitoring and supervising MPAs management plans and measures, assisting in activities aimed at

increasing marine biodiversity knowledge, sharing, consolidating, and disseminating technical and scientific information, and ensuring coordination among entities with responsibilities for assessing and maintaining biodiversity and ecosystem services.

The working group will be coordinated by members of Government responsible for maritime and environmental affairs and may include other entities or individuals deemed relevant by the Government, including national and international experts. Its operational rules will be defined by ministerial order or government decree.

The working group will also prepare and submit to the relevant ministers an annual report on the status of MPAs classification and management, including recommendations, suggestions, and proposals for improvement.

Furthermore, the working group will ensure cross-border and regional cooperation and coordination in the classification and management of MPAs that border international maritime zones or maritime areas under the jurisdiction or sovereignty of other coastal States, in coordination with Government bodies responsible for foreign policy.

In coordination with foreign affairs authorities, the commission will also promote the technical coordination of Timor-Leste's representation in international processes related to MPAs and, more broadly, to marine biodiversity conservation. This coordination will extend to other relevant sectors such as fisheries. Through this measure, the Government seeks to ensure national and international decision-making mechanisms are underpinned by effective coordination among competent State agencies and services.

Another Government objective is to create a National MPAs Network, integrated into the National Protected Areas System (NPAS), that ensures an ecosystem-based approach and appropriate interaction with existing land protection regimes and those covering coastal zones and transitional waters.

Strategic Objectives:

- Contribute to the international commitment adopted at the 15th Conference of the Parties to the Convention on Biological Diversity in 2022, the “Kunming-Montreal Global Biodiversity Framework”, which introduced new targets and a more ambitious and updated response to the challenges faced by biodiversity globally, namely to protect at least 30% of global terrestrial and marine areas through protected areas and other effective conservation measures by 2030.
- Protect and maintain threatened marine species and their habitats, as well as marine and coastal ecosystems, to ensure the health of seas and the ocean.
- Contribute to the sustainable management of marine resources, notably through the regulation of economic activities such as fisheries, aquaculture and the harvesting of marine species (seaweeds, molluscs, etc.), also as a means of ensuring the sustainability of present and future coastal communities.
- Support national and international scientific research to obtain scientific and technical surveys identifying protection needs, critical breeding and development areas of marine species, and the status of their habitats and associated ecosystems, to provide data for the development of public policies that create an enabling environment for the survival and prosperity of species.

- Contribute to increased resilience and adaptation to climate change, strengthening the implementation of the NAPA.
- Contribute to sustainable economic development, notably through sustainable tourism and community-based ecotourism associated with MPAs.
- Contribute to food security by ensuring the stocks and health of marine species, particularly fish, thereby improving the socio-economic conditions of the communities of Timor-Leste.

5.2.1.2.1 Ataúro National Park

«The oceans are vast and mysterious, and marine nature parks are like windows into a dazzling underwater world. In them, we discover the infinite diversity of marine species and the importance of protecting these fragile ecosystems. These protected areas are true treasures for humanity, a constant reminder of the incredible beauty and power of nature.»

Jacques -Yves Cousteau

According to the National System of Protected Areas of Timor-Leste, a national park is an area that contains one or more ecosystems comprising plant and animal species, natural and human-shaped landscapes, geomorphological zones, and habitats of scientific, socio-economic, ecological, scenic, recreational, cultural, or educational interest, or where there is a natural landscape of remarkable aesthetic value.

The classification of a national park, which may include terrestrial and marine areas, aims to holistically protect the integrity of the mentioned ecosystems by adopting measures that: protect and restore species, ecosystems and ecological processes within the area; promote recreational and leisure activities that enable people to interact with the surrounding nature in a sustainable manner that preserves the integrity of the area; regulate resource exploitation and construction activities, taking into account local community needs; and ensure the sustainable use of natural resources through activities that provide sustainable local development alternatives.

There are currently two national parks in the country:

- Nino Konis Santana National Park, established in 2007, a terrestrial and marine park. The marine part includes the coastal areas of Com, Tutuala and Lore. It has been designated as a Category V area by the International Union for Conservation of Nature —Protected Landscapes/Seascapes; and
- Kay Rala Xanana Gusmão National Park, established in 2015 in Ainaro, a natural and cultural/historical terrestrial park.

The island of Ataúro, home to one of the most significant marine biodiversity hotspots in the world and recognised as an Ecologically or Biologically Significant Marine Area, meets the necessary requirements for the establishment of an Ataúro National Park. On the other hand, there are terrestrial areas of environmental interest that require protection, and areas of international ornithological importance have been identified in Ataúro, which must also be protected. For this reason, the Government will create the Ataúro National Park, a national park for terrestrial and marine protection, thus also including the preservation of Monte de Manucoco, the highest point on the island of Ataúro, promoting sustainable tourism throughout the island and integrating the protection of the sea and the land.

Ataúro's ecosystems provide essential habitats for many threatened species, such as marine turtles, cetaceans, dugongs, and reef sharks, and the region is recognised as an *Important Marine Mammal Area* — a critical migratory corridor for large whales, pelagic sharks, sea turtles and other marine megafauna. Its reefs are also considered *climate refugia*, areas likely to be more resilient to climate change due to natural upwelling, making them crucial for global marine conservation efforts.⁹⁰

The Government's goal of establishing an Ataúro National Park benefits from the fact that local communities on the island have already played a significant role in natural resource management through Locally Managed Marine Areas. These communities have not only demonstrated a deep understanding of the need for protection, but have also actively defended Ataúro's ecosystems, recognising their vital importance to sustaining local livelihoods.

Studies show that locally protected reefs around Ataúro exhibit significantly higher fish diversity and coral health than unprotected areas. However, some reefs still show signs of blast fishing and overfishing, and research has identified many rare and endangered species.

Currently, there are 15 locally managed marine protected areas around Ataúro Island, governed by the communities through Tara Bandu. Despite their commendable efforts, these areas often remain limited in size. The Government has been working to consolidate these locally managed MPAs under a unified management framework. However, they remain narrow in scope, typically extending only 500–1,000 metres from the shoreline, and are not always based on rigorous scientific or biodiversity data to ensure long-term viability.

Furthermore, the Tara Bandu system in Ataúro faces management and funding challenges, both for the local communities and for the preservation of marine ecosystems — like the difficulties faced by the Nino Konis Santana National Park.

In response, by establishing the Ataúro National Park, the Government aims to reinforce and support the existing community-led Locally Managed Marine Areas by providing legally enforceable protections. However, further scientific and technical studies and extensive community consultations in Ataúro are needed to balance conservation needs with socio-economic realities.

Considering the varying levels of protection—ranging from minimal protection to fully protected no-take zones—based on scientific data, the implementation of the Ataúro National Park may require support for alternative livelihoods to ensure that communities can thrive while securing long-term benefits.

To this end, the Government of Timor-Leste will support the development of sustainable marine tourism (diving, snorkelling, whale watching) and community-based ecotourism, both of which hold strong growth potential. It will also promote sustainable and high-value fisheries and aquaculture alongside investment in nature-based solutions, including support for women's and youth entrepreneurship.

This investment will include the development of sustainable seaweed farming and fisheries, with cold-chain storage, drying, and seaweed processing facilities.

With targeted investments, Ataúro could transition to a high-value sustainable fisheries and aquaculture sector, establishing small-scale community-based fish processing and cold-storage facilities. This would help consolidate fish supply across the island and ensure a consistent supply of quality seafood to local and national tourism operators.

A key part of this strategy includes strengthening institutional capacity, education, and vocational training for local residents in areas linked to the development of Ataúro.

As part of the creation of the Ataúro National Park, the Government will also invest in ecological infrastructure, such as renewable energy systems, rainwater harvesting, and waste management, to enable sustainable, community-based economic development. Finally, improving communications, transportation, and connectivity infrastructure will be essential to attract new high-value tourist segments and increase overall visitor numbers.

Following the creation of the Ataúro National Park, Timor-Leste may join the UNESCO World Heritage Marine Programme, whose mission is to ensure the effective conservation of existing and potential marine areas of Outstanding Universal Value, safeguarding their continued survival and prosperity for future generations. Established under the 1972 UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage, the program enables effective management of marine sites as part of an international network.

Strategic Objectives:

- Establish the Ataúro National Park as a legally protected area, composed of multiple zones with different categories of protection and use of Marine Protected Areas (MPAs), based on a balance between the best available scientific knowledge and local and traditional knowledge.
- Invest in a model of environmental protection and sustainable development for Ataúro, combining marine conservation and community-based tourism through nature-based solutions: a small island with a big heart.
- Promote the Ataúro National Park as a privileged biodiversity laboratory and a conservation platform supported by strong governance, capable of attracting funding and donor support, as well as scientists and academics from around the world.
- Promote nature-based solutions and ecosystem conservation projects with appropriate land–sea interaction, including mangrove restoration, conservation of seaweed and seagrass, and reforestation projects, in partnership with local communities.
- Create sustainable income for local communities through sustainable revenue-generation and benefit-sharing mechanisms, drawing on international best practices and insights from visitor-focused research, ensuring adaptation to the local cultural context.
- Create economic opportunities and employment in the fields of environmental protection, ecotourism and the Blue Economy, fostering a sustainably growing economy in harmony with the natural environment.
- Consider submitting the Ataúro National Park as a candidate for the UNESCO World Heritage Marine Programme. Such designation would provide Timor-Leste with a significant advantage in gaining international attention, both in attracting tourism and in stimulating interest from the international community for marine scientific research on Ataúro Island and potentially securing funding, with the ultimate objective of strengthening capacity for the effective management of marine protected areas.

5.2.1.3 Transboundary Cooperation

«The sustainable management of common resources, including marine resources, requires collaboration among different groups and countries, as the challenges we face transcend national borders. »

Elinor Ostrom

The National System of Protected Areas contemplates the establishment of transboundary protected areas across certain terrestrial, marine, or combined regions, aimed at the protection and maintenance of biodiversity and associated natural and cultural resources, in accordance with international law.

These areas extend beyond a single country and are essential for biodiversity conservation and ecosystem preservation, enhancing the need for a true ecosystem-based approach. Transboundary areas may include national parks, nature reserves, or other types of protected zones co-managed by neighbouring countries.

In the specific case of MPAs, such zones may also be referred to as “Natural Parks” or even “Peace Parks”, as they are developed through bilateral, regional, or multilateral cooperation. Their aim is to protect and sustainably manage the terrestrial and marine environment and living resources through the creation of transboundary protected areas, while also contributing to socio-economic development and the promotion of a culture of peace and cooperation.

Examples of such environmental cooperation include:

- Red Sea Marine Peace Park, which includes the management of marine areas along the Red Sea (a collaboration involving Egypt, Sudan, Saudi Arabia, and others);
- Pelagos Sanctuary, focused on the conservation of cetaceans and their ecosystems (France, Italy, and Monaco);
- International Peace Park, a protected area symbolising peace, friendship, and landscape protection, including lakes, forests, and wilderness areas (United States and Canada); and
- Iguazu National Park, known for its stunning waterfalls and rich biodiversity (Brazil and Argentina).

In the case of Timor-Leste, cooperation with neighbouring countries such as Australia and Indonesia could greatly benefit marine biodiversity conservation and the fight against pollution and ecosystem degradation, especially in preserving migratory species such as turtles, tuna, whales, dolphins, and manta rays.

Several regional mechanisms are already in place, such as the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security, aimed at safeguarding the coastal and marine resources of the waters surrounding Timor-Leste, Indonesia, Papua New Guinea, the Philippines, and the Solomon Islands. The Coral Triangle Center, an independent nonprofit organisation, also promotes marine conservation in the region by enhancing capacity and education, and by offering training and support for MPA management, including significant support on the island of Ataúro.

Likewise, the Arafura and Timor Seas Ecosystem Action Program promotes the conservation and sustainable use of the Arafura and Timor Seas, which are shared by Australia, Indonesia, Papua New

Guinea, and Timor-Leste. These seas lie at the southern edge of the Coral Triangle and at the intersection of the Indian and Pacific Oceans.

Finally, the Partnerships in Environmental Management for the Seas of East Asia is a regional partnership focused on the sustainable development of coastal and ocean areas in East Asia. This includes a broader set of countries interacting with the East and South China Seas and others.

Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) promotes integrated and sustainable coastal and marine management in East Asia and supports conservation and sustainable use practices that go beyond political boundaries. Its approach focuses on capacity building and policy development, aligning with the goals of CTI and the Timor Seas Ecosystem Action Program, and reinforcing regional cooperation and sustainable management practices.

The Government of Timor-Leste will therefore strengthen bilateral and regional cooperation to improve transboundary marine management, with a long-term vision, planning, guidelines, and regulations to implement MPAs — recognising that national marine environmental conservation plans alone are insufficient to ensure the health of the ocean, its ecosystems, and marine species.

Strategic Objectives:

- Promote bilateral cooperation between Timor-Leste and neighbouring countries, not only for the conservation and promotion of marine protected areas, but also for the promotion of peace and friendship.
- Protect and maintain biodiversity and the natural and cultural resources associated with shared ecosystems and migratory marine species.
- Share knowledge and experiences among local communities of neighbouring countries and promote the sustainable development of communities.
- Facilitate the transfer of know-how, science and technology among neighbouring countries to enhance the effectiveness and success of marine conservation efforts.

5.2.1.4 Strengthening Environmental Impact Assessment (EIA) Regimes

The Government of Timor-Leste, aware of the importance of the country's marine biodiversity—notably its relevance within the Coral Triangle—and of the international obligations assumed under UNCLOS and other instruments, will, in coordination with the Environmental Framework Law, and in particular the regime applicable to Strategic Environmental Assessment (SEA), reinforce the legal framework governing Environmental Impact Assessment (EIA).

While SEA is “a preventive instrument of environmental policy, based on the analysis and prediction of potential impacts of policies, strategies, and plans on the environment to support decision-making regarding their environmental viability”, EIA is an instrument focused on a specific project, use, or activity.

As such, EIA is an essential tool for the prior verification of the environmental compliance of any project, use, or activity planned to take place within the terrestrial or maritime territory of the country that is likely to have significant environmental effects. When legally required, EIA constitutes

a mandatory and determining precondition for the development of such projects, uses, or activities, and must follow international best practices.

Therefore, any licensing authority or entity competent to grant rights for a project, use, or activity within the national terrestrial or maritime territory must reject applications that have not obtained a prior Environmental Impact Assessment decision, where this is legally mandatory, or when it has been determined that the project, use, or activity should be subject to an Environmental Impact Assessment decision.

Regarding projects, uses, and activities located in the marine environment, the objective is to protect the area's environmental status. Accordingly, such developments must comply with strict environmental criteria and follow the highest international standards in this regard.

The new legal regime will clarify the roles and responsibilities of the various entities involved in the Environmental Impact Assessment process and reinforce coordination among them to ensure procedural consistency.

It will also safeguard applicants' rights, define procedural timelines, identify cases in which an Environmental Impact Assessment is waived or not applicable, establish the relevant fees, duration and expiry terms, a sanctioning framework, and procedures for public participation and information rights, to guarantee transparency throughout the process.

Strategic Objectives:

- Improve the national legal framework relating to Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA), in accordance with the Framework Law on the Environment.
- Develop environmental management and assessment mechanisms to address potential gaps in national legislation, particularly regarding marine environmental impacts.
- Promote, in an integrated manner, marine biodiversity within the national maritime domain, in line with international best practices and in accordance with obligations under international law, within the framework of UNCLOS.
- Introduce legislation regulating the use of public domain property, including the coastal zone, with particular emphasis on normative solutions aimed at preserving the marine environment.

5.2.2 PILLAR 4: Marine Biodiversity Conservation

«Oceans are the primary source of life on Earth, generating oxygen, regulating the climate, and providing food and essential resources for human survival. It is our responsibility to protect and preserve marine ecosystems, as the health of the ocean is directly linked to the health of the planet.»

Sylvia Earle

As previously mentioned, marine ecosystems are essential for ecological balance, food supply, climate regulation, air and water purification, and are also a key economic resource through tourism, fishing, maritime transport, and other sectors.

In addition to the measures described above, protecting the environment and marine ecosystems requires further actions such as pollution reduction, solid waste management, and reduction of plastic waste in the sea and ocean. Environmental education is a vital factor in achieving these objectives.

Moreover, the active involvement of the Government, along with the participation of international organisations, local communities, scientists, and civil society, is crucial to ensure the implementation and enforcement of environmental protection laws and biodiversity preservation regulations. These actions are fundamental to ensuring a balance between human development and the preservation of the planet's natural resources.

Considering the interconnected nature of the ocean and the fact that the marine environment is impermeable to political or legal borders, marine biodiversity conservation measures adopted within the national maritime space must also take into account legal regimes applicable to areas beyond national jurisdiction — particularly the recent BBNJ Agreement, ratified by Timor-Leste on 26 September 2024, placing the country among the first to ratify this important instrument.

Timor-Leste, to preserve its biodiversity, will propose measures to combat trafficking in fauna and flora and establish international cooperation agreements on combating trafficking in fauna and flora.

5.2.2.1 Coral Reefs

«The future of coral reefs is in our hands. If we don't care for them, we will lose a vital part of our ocean ecosystems.»

David Attenborough

Coral reefs are tropical zone ecosystems composed of coral species and a wide variety of fish. Although they cover only 1% of the ocean, coral reefs are home to over a quarter of all marine fish species. These shallow-water ecosystems, in addition to their biological richness, protect seagrass meadows and mangrove forests from wave action.

Corals grow up to two centimetres per year and may take over 10,000 years to form reefs like those found in Australia.

Coral reefs are highly diverse and valuable marine ecosystems that play a vital role in Timor-Leste, contributing notably to:

- **Biological diversity:** Timor-Leste's coral reefs host a rich array of marine species, including colourful fish, corals, molluscs, and crustaceans. They serve as habitats for a wide variety of marine life, making them essential for the conservation of local marine biodiversity.
- **Fisheries and related activities:** Coral reefs are vital for fishing and the livelihoods of coastal communities in Timor-Leste. They provide habitats for fish and other marine species, supporting local fishing populations and contributing to food security as an important source of protein.

- Coastal protection: Coral reefs also play a key role in protecting Timor-Leste's coastlines. They reduce wave energy and coastal erosion, acting as natural barriers that shield beaches and coastal communities from extreme weather events such as storms and cyclones.
- Sustainable tourism: The beauty and diversity of Timor-Leste's coral reefs attract both domestic and international tourists. Tourism related to coral observation and scuba diving contributes to the country's economy, creating jobs and income for local communities while also supporting conservation efforts and appreciation for coral reefs.
- Marine ecosystem health: Coral reefs are fundamental to the overall health of marine ecosystems in Timor-Leste and the region. Healthy marine ecosystems support water quality, nutrient cycling, and oxygen production —all critical for sustaining marine food chains.

A study conducted in August 2012 recorded coral reef fish in 20 different sites in Timor-Leste, based on 75 hours of diving to a maximum depth of 70 metres.

This study identified a total of 741 species from 61 families and 234 genera. In addition, 40 species were identified in a 2008 survey in the (Marine) Nino Konis Santana National Park, and 33 species were recorded during a September 2012 expedition by the Australian Museum.

As of 2012, the total known coral reef fish fauna of Timor-Leste is 814 species.⁹¹

More recently, in 2016, a study by Conservation International found that the waters surrounding Ataúro Island contain some of the world's highest marine biodiversity. Researchers surveyed ten sites around the island and found an average of 253 fish species per site. In total, they recorded 642 different species, including 315 species in a single location — some of which may be completely new to science, and others are very rare.

While this data needs to be updated with more recent surveys, new fish species have continued to be discovered — such as *Eviota santanai* (Santanai dwarfgoby) and *Eviota atauroensis* (Ataúro dwarfgoby), found in Nino Konis Santana Park and Ataúro Island, respectively.

There are few recent studies on the condition of Timor-Leste's coral reefs, but estimates indicate that around 92% face high or very high threats due to unsustainable fishing, destructive practices, pollution from watershed runoff, coastal development, and marine pollution. Additionally, the thermal stress and coral bleaching linked to climate change place reefs at further risk. This highlights the urgent need for robust conservation measures to protect and restore local biodiversity.⁹²

Strategic objectives:

- Understand and protect the coral reefs of Timor-Leste and create conditions to ensure they remain healthy, contributing to marine biodiversity and ocean health.
- Preserve biological diversity, protect coastal areas and maintain the health of marine ecosystems, while promoting fisheries and related activities and tourism in a balanced and sustainable manner.

- Integrate community governance systems, such as Tara Bandu, into the national management of coral reefs, ensuring local ownership, cultural recognition and long-term sustainability.
- Promote sustainable Blue Economy opportunities (ecotourism, sustainable fisheries, reef-friendly businesses) that generate income while safeguarding reef ecosystems.
- Strengthen regional and international cooperation (CTI, ATSEA, PEMSEA) for the sharing of data, technologies and best practices for coral reef protection in a transboundary context.

5.2.2.2 Mangroves

«A mangrove forest is a biological treasure that can be compared to the beauty of a cathedral or the wonder of a mountain range.»

Peter Matthiessen

Mangrove forests are forests of trees with aerial roots that grow in tropical regions, typically in estuarine areas or muddy coastal zones. Mangroves are a type of salt-tolerant vegetation that includes trees and shrubs with extensive root systems beneath the surface and in deep sediments. These deep sediment layers store anaerobic carbon which, when exposed, oxidises and becomes a source of greenhouse gas emissions. The destruction of mangroves releases this stored carbon, which highlights the urgent need to preserve them.

Mangroves are therefore among the forest environments richest in carbon, storing more carbon than any other forest type, making them a key part of the solution to climate change. A report by the Global Commission on Adaptation estimates that mangroves generate a net benefit of USD 1 trillion for climate change adaptation, to be achieved by 2030 if investment begins swiftly.

They are also essential for protecting coastal communities, as they act as an important barrier against destructive forces from the sea and wind. Their root systems filter pollutants in the water, improving the quality of water that flows from rivers and streams into the ocean environment.

In addition, they enhance fish production, as they provide unique habitats for wildlife, supporting several plant and animal species specialised in the transitional zone between land and sea. They are also important nursery areas for species that spend their adult lives on coral reefs or in the open ocean.

Mangroves can be restored depending on the severity of the natural risks they face, the return to suitable conditions and climate, local land use, and the options available to withstand extreme events.

Given that mangroves are vital to the marine environment, coastal communities, and mitigating the effects of climate change, the Government of Timor-Leste will proactively address the existing risks to mangroves to minimise their destruction and protect their habitat, including through consistent mangrove reforestation practices.

The Government will resume and strengthen coastal resilience programs with extensive interventions for the protection and restoration of mangrove ecosystems and coastal wetlands, with the support of international partners and local communities, including through the Tara Bandu practice.

Strategic Objectives:

- Protect the biodiversity inhabiting mangrove ecosystems, including fish, crustacean, bird and plant species, keeping them healthy and resilient, also recognising their role as nurseries for numerous marine species.
- Protect coastal areas and ensure the socio-economic sustainability of coastal communities.
- Contribute to climate change mitigation, recognising that mangroves play a fundamental role in storing large quantities of carbon in soil and vegetation (carbon sequestration).
- Protect the health of the sea and ocean and their ecosystems, through the essential role of mangroves in filtering pollutants and sediments, thereby ensuring improved water quality in coastal areas.
- Contribute to economic diversification through the sustainable use of mangrove natural resources, including timber, marine resources and tourism.

5.2.2.3 Seaweeds and Seagrasses

«In the dance of the tides, seaweeds sway gracefully, embodying the ocean's rich life and standing as a testament to nature's resilience and beauty.»

Seaweeds, or macroalgae, provide shelter and food for a variety of marine organisms, including fish, invertebrates, and others. They also contribute to stabilising sediments, improving water quality, and participating in the nutrient cycle of the marine environment.

Beyond their ecological role, seaweeds are increasingly being used across various industries, which presents an important opportunity for economic diversification and job creation in the country.

Seaweeds come in a variety of shapes and colours, ranging from microscopic forms to large multicellular organisms visible to the naked eye. They are a type of plant that lives in seawater and can be found all around the world.

Seaweeds produce oxygen, helping sustain life on the planet, while absorbing carbon dioxide (from the atmosphere and seawater through photosynthesis). This helps reduce carbon dioxide levels, which are responsible for global warming and climate change.

In addition, seaweeds provide habitat and shelter for several marine species, including fish, molluscs, crustaceans, and other marine life. They offer protection from predators and serve as nurseries for the larvae of many marine species. Seaweeds also form the base of the food chain in many marine ecosystems. They are consumed by herbivores, which in turn are prey for other organisms such as fish, seabirds, and marine mammals.

Seaweeds can also contribute to increased productivity in the agricultural sector, as they are a natural fertiliser. Many species of seaweed are rich in nutrients such as nitrogen and phosphorus and can be used to improve soil quality and support the growth of terrestrial plants.

Finally, seaweeds are an important source of food and are consumed in many cultures around the world. Small-scale industries based on seaweed can be developed. In addition to being used as food,

they can also be processed by industries to produce items such as cosmetics, fertilisers, bioplastics, and renewable fuels.

Strategic Objectives:

- Promote research, scientific study and education on seaweed within the framework of the Timor-Leste Biodiversity Survey and Study Programmes and the National Ocean Literacy Programme.
- Protect, conserve and restore seaweed habitats.
- Establish specific regulations for the sustainable management of seaweed, including sustainable harvesting practices.
- Develop partnerships in the areas of innovation and technology for the sustainable production and cultivation of seaweed, also with the objective of economic diversification.
- Contribute to climate change mitigation and its impacts through the conservation of seaweed.

«Seagrasses are the lungs of the ocean, providing vital habitats and supporting biodiversity, while playing a crucial role in carbon sequestration.»

According to CI, seagrass ecosystems are considered as important as coral reef systems, as they are essential to the success of coastal fisheries. Seagrasses, which are under pressure from human activity, play a key role in climate change mitigation.

Seagrasses are fully submerged flowering plants that can grow in underwater meadows along coastal zones near the shore. Their roots accumulate vertically beneath the seabed over time, creating a significant reserve of buried carbon. It is estimated that one hectare of seagrass meadow, despite its relatively small amount of live biomass, can store as much carbon as one to two hectares of temperate forest. Of the three key coastal Blue Carbon ecosystems — mangrove forests, saltwater marshes, and seagrass meadows — the latter are the least studied and therefore represent a significant area for exploration and knowledge expansion.

However, it is known that when seagrasses are healthy, they play an important role in meeting the dietary needs of coastal communities and millions of consumers of fish and seafood worldwide. They also protect coastlines from storm impacts, improve seawater quality, and help prevent the acceleration of climate change. Dugongs that inhabit seagrass ecosystems serve as excellent indicators of the overall health of this habitat, as they are the only herbivorous marine mammal that depends on seagrasses for food. Seagrass ecosystems with dugong presence are indicative of a healthy environment.

The direct and indirect threats to these sensitive seagrass ecosystems stemming from human influence are significant and cannot be ignored. As such, the Government of Timor-Leste will promote not only research and science, but also greater literacy and awareness of seagrasses, for their protection and conservation.

Strategic Objectives:

- Promote research, scientific study and education on seagrass within the framework of the Timor-Leste Biodiversity Survey and Study Programmes and the National Ocean Literacy Programme.
- Combat the direct destruction of seagrass habitats associated with unsustainable urban and industrial coastal development, as well as certain fishing methods (trawling, use of explosives and chemicals) that cause direct physical damage to seagrass meadows.
- Address coastal water pollution resulting from inadequate domestic wastewater treatment, disposal of untreated industrial liquid and solid waste, and runoff caused by deforestation for plantation purposes.
- Contribute to climate change mitigation and its impacts through the conservation of seagrass.

5.2.2.4 Cetaceans, Sea Turtles, Sharks, Dugongs and Other Marine Species

«The blue whale is the most magnificent and majestic being I've ever had the privilege to share the ocean with.»

Jacques Cousteau

The protection and conservation of marine species not only contribute to the stability and health of marine ecosystems but also brings benefits to the fisheries and marine tourism sectors. Special attention and emphasis should be given to key species — those that have a significant impact on their ecosystems. The disappearance or removal of such species can cause severe imbalances in environmental health, and they are also typically the kinds of species that attract major tourist interest and serve as flagship attractions.

Timor-Leste, with its rich ocean space hosting habitats for a diverse array of marine life, bears the responsibility to protect and take conservation measures for the various key marine species that occur in its waters — many of which are listed as Vulnerable, Endangered or Critically Endangered on the IUCN Red List of Threatened Species.

Alongside tourism development, Timor-Leste is positioned as a prime location for scientific research, monitoring and evaluation of these key species, given the biodiversity found in its waters. Research and data collection contribute not only to marine sustainability but also to national and international education and awareness.

Cetaceans

Cetaceans are a group of marine mammals that include whales and dolphins, living mainly in the world's oceans and seas, though some species are found in rivers and estuaries. They are known for their high cognitive abilities, complex social structures, and intricate vocal communications like whale songs and dolphin calls. Large whales are considered key species due to the ecological services they provide — nutrient cycling, climate regulation, carbon sequestration, and food web stability. Everything from their feeding habits to their digestion and decomposition supports planetary health.

More than a third of the world's known cetacean species live in or migrate through the waters of Timor-Leste. This places the country among the world's best locations for seeing dolphins and whales. Some species are also known to congregate and feed in the same areas, forming what are known as superpods of dolphins or whales.

Moreover, Timor-Leste lies along a known migration route for pygmy blue whales (*Balaenoptera musculus brevicauda*), a subspecies of blue whales. These marine mammals are among the largest creatures ever to exist. The Antarctic blue whale (*Balaenoptera musculus intermedia*) is the largest, reaching over 30 metres in length and 200 tonnes in weight.

The annual migration season of the pygmy blue whales makes Timor-Leste one of the best places in the world for their observation. At the same time, sightings of sperm whales, orcas and humpback whales have also been recorded. This opportunity has only recently gained international attention, generating growing interest and giving rise to whale tourism — including boat tours and in-water swimming encounters — making Timor-Leste one of the few countries in the world that permits this activity.

Whale tourism has the potential to become a unique, world-class, high-value industry for Timor-Leste, but it requires strong governance, careful management and ethical, sustainable practices. It is essential that interactions with these animals be responsible and respectful, maintaining safe distances and avoiding interference with natural behaviour. The recent rapid growth in whale tourism interest must be closely monitored to prevent negative impacts on animal welfare and human safety.

Regulatory proposals have already been drafted in partnership with conservation organisations for government consideration. However, the Government sees the need to review and finalise these proposals through consultations with all relevant local stakeholders and expert advice, to fully understand the migratory cycles and the specific regulatory needs for whale observation and monitoring.

This applies not only to whale watching but also to dolphin observation, as the rich biodiversity of Timor-Leste's waters supports sightings of several dolphin species. Commonly seen dolphins in Timor-Leste include the pantropical spotted dolphin (*Stenella attenuata*), spinner dolphin (*Stenella longirostris*), Fraser's dolphin (*Lagenodelphis hosei*) and Risso's dolphin (*Grampus griseus*). These dolphins travel in groups and are known for their playfulness, leaps and acrobatics.

Sea Turtles

Six of the seven known species of sea turtles are found in the waters of Timor-Leste. Sea turtles are crucial for the health of ocean ecosystems, contributing to food chain balance as both top and mid-level predators, and maintaining marine habitats through behaviours such as foraging on reef sponges, grazing on seagrass, and preying on jellyfish.

Traditionally, turtle meat and eggs have been used for food and trade by local communities over generations. However, turtle populations have declined rapidly due to human activity. Habitat loss especially affects feeding and nesting areas. Despite being listed as protected species, there is little enforcement on turtle capture and egg harvesting.

Accurate population estimates are lacking due to limited data. Tagging, tracking, and monitoring of sea turtles is not yet in place in the country and needs to be established.

Grassroots conservation efforts have begun in places like Liquiçá and Com. Expanding protected areas around feeding and nesting habitats and improving enforcement against the harvest of turtles and eggs, will help reduce decline and allow populations to recover.

Turtle conservation centres have also become popular tourist and education sites in other countries. Timor-Leste will explore similar models to support species preservation while also creating jobs and diversifying livelihoods in selected communities.

Sharks and Rays

Sharks and rays in Timor-Leste play a vital role in maintaining healthy marine ecosystems but face serious threats from overfishing, bycatch, and habitat degradation. As apex predators, they regulate fish populations and maintain the balance of coral reefs and other habitats — critical for biodiversity and local fisheries.

Timor-Leste's waters host various species, including reef sharks, tiger sharks, hammerheads, mobula rays and manta rays. However, in-water sightings are rare, and it is assumed that these species are being fished. Shark and ray sales by fishers have been observed along much of the coastline, but there is no data to indicate whether these are targeted catches or bycatch.

Around the world, similar species are endangered or vulnerable due to global demand for shark fins and ray gill plates. Data on local populations are limited and requires further study, but interest in expanding research into Timor-Leste's shark and ray populations is growing — particularly following the recent success in capturing the first-ever footage of a live painted swellshark (*Cephaloscyllium pictum*). The swellshark inhabits deep-sea environments, and the discovery of one off the coast of Timor-Leste marked a significant milestone in research, as the species had previously only been documented through specimens found in fish markets.

Shark and ray conservation efforts in Timor-Leste are hindered by a lack of proper monitoring and enforcement. Protecting these species is essential not only for ecological stability but also to support the livelihoods of coastal communities who depend on healthy oceans.

Dugongs

Dugongs are herbivorous marine mammals in the Sirenia order, along with manatees. Adult dugongs can reach 3 metres in length, weigh up to 500 kilograms and live up to 70 years. For millennia, dugongs have been important to human cultures. Like sea turtles, their seagrass-based diets play a vital role in maintaining healthy marine ecosystems.

Although capable of long-distance travel, dugong populations are believed to be declining globally — by an estimated 20% over the last century — mainly due to human activity. Their low reproductive rate (a single calf every 3-7 years) puts them at particular risk.

In Timor-Leste, dugongs are not actively hunted due to their sacred status. However, they remain vulnerable to destructive fishing practices, boat strikes, and coastal development that affects seagrass bay habitats. In Liquiçá and Dili, known feeding areas are near current or planned development zones, increasing the risk of habitat loss. Future tourism or boat traffic may further impact dugong habitat range.

In Com, a community-led initiative has shown success in protecting dugongs and turtles, with many individuals regularly visiting the community-managed protected area. Dugongs are also sighted around Ataúro Island, but further study and monitoring of the local population is needed to inform protection strategies.

Conservation International Timor-Leste has been supporting the Government in establishing the first Dugong Park, in Ililai, to conserve dugong populations and support community-based ecotourism. Surveys have identified more than 20 dugongs in north-eastern Timor (CI-TL and the National Fisheries Directorate, 2024).

Saltwater Crocodiles

Saltwater crocodiles (*Crocodylus porosus*) are a significant and revered presence in Timor-Leste, inhabiting coastal waters, rivers, and mangrove ecosystems. In Timorese culture, crocodiles hold deep symbolic importance, often seen as ancestral beings or land guardians. However, as human populations grow and habitats shrink, encounters between people and crocodiles have increased — sometimes leading to fatal attacks.

Balancing cultural respect, ecological conservation, and human safety, the persistence of saltwater crocodiles requires careful planning, especially as the country seeks to expand marine and coastal tourism. A comprehensive wildlife management plan is needed to address habitat protection, community education and conflict mitigation strategies. These measures would reduce risky interactions while preserving the crocodile's role in the ecosystem and Timor-Leste's cultural heritage.

Strategic objectives:

- Promote conservation and scientific research on cetacean populations and other marine species.
- Develop a regulatory framework and ethical guidelines for these marine species.
- Develop community-based tourism that generates local benefits both for people and for marine species.
- Develop sustainable infrastructure and strengthen capacities for species observation.
- Educate and raise awareness about ethical interactions with wildlife.
- Promote international collaboration and seek funding sources for the management and conservation of this unique biodiversity.

5.2.3 PILLAR 5: Combating Marine Pollution and Waste Management

«Plastic pollution is everywhere — all around us and even inside us — from our seas to our blood, to our brains. (...) By 2050, there could be more plastic in the ocean than fish.»
António Guterres, Secretary-General of the United Nations

Plastic pollution suffocates the planet, harms terrestrial and marine ecosystems, affects well-being and the climate, as plastic waste also clogs rivers, pollutes the ocean and endangers wildlife.

The United Nations estimates that 11 million tonnes of plastic ends up in lakes, rivers and seas annually, with microplastics being of particular concern — tiny plastic particles up to 5 mm in diameter that enter food chains, water and air, thus posing a serious threat to public health.

Half of the more than 400 million tonnes of plastic produced globally each year is designed for single use, making it urgent to implement policies to reduce single-use plastics and improve waste management.

The Government of Timor-Leste is committed to reducing the country's plastic waste, as well as recycling and promoting reuse. This concept, which is not new, is known as the 3Rs Policy (Reduce, Recycle and Reuse) and requires greater awareness at the national level, including within the National Ocean Literacy Programme.

Reducing what is consumed is the first principle of sustainability, while recycling — that is, transforming waste into new resources — requires bold approaches and government investment. Reusing, meaning promoting conservation and waste minimisation practices, will also be an important government priority under the framework of the circular economy.

Local businesses play a key role in the circular economy. It will be up to the Government to support the performance of local businesses, by prioritising public procurement that uses recycled plastics in public infrastructure projects, thereby ensuring the development of domestic recycling industries rather than relying solely on the export of waste.

Recognising this issue, more than four decades ago the United Nations included a framework for the protection and preservation of the marine environment in UNCLOS, which requires States to protect and preserve the marine environment from all sources. States are also obliged to take necessary measures to ensure that activities under their jurisdiction do not cause harm or pollution to other States and their marine environment.

UNCLOS defines marine pollution as “the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in deleterious effects such as harm to living resources and marine life, hazards to human health, hindrance to marine activities including fishing and other legitimate uses of the sea, impairment of the quality for use of sea water, and reduction of amenities.”

This international framework also provides for the regulation of State activities regarding the protection and preservation of the marine environment from a variety of sources, including land-based activities, seabed mining, deep-sea mining in the high seas, discharges, ships and atmospheric pollution. UNCLOS requires States to adhere to international standards for managing and regulating marine pollution.

Since the most significant source of marine pollution is land-based, States are encouraged to implement regulations that control pollution from land-based sources, not only plastic, but also materials from fishing activities, such as fishing nets, and agricultural chemicals, as these have the greatest impact on the environment and marine life.

It is also necessary to consider the danger of biological and toxic waste (namely syringes and materials contaminated with blood, antibiotics, disinfectants and pharmaceuticals), which must always be disposed of safely.

The dumping of hospital waste in open dumps, near coastal areas or directly into watercourses poses a serious threat to marine and human ecosystems and promotes antimicrobial resistance, an emerging risk to global health.

With an integrated vision, combating pollution and improving waste management, including biological, organic and toxic waste, will not only ensure the long-term health of the ocean and marine resources but also allow ocean-related economic activities to grow sustainably, including marine tourism, thereby providing better living conditions for Timorese people.

A study conducted by the Asian Development Bank and the UNDP revealed that between 54.7 and 68.4 tonnes of plastic are generated daily in Timor-Leste. It is estimated that about 80% of this plastic enters the ocean directly, without any waste treatment or through direct disposal into the sea.

A study on marine and terrestrial pollution on Timor-Leste's south coast identified 14 critical hotspots with severe pollution loads. The study calls for urgent action to prioritise pollution control plans to protect the country's marine resources. The study, titled "Marine and Terrestrial Pollution on the South Coast of Timor-Leste", is the first to carry out a survey and collection of marine litter in four municipalities along the south coast. It is part of the ATSEA-2 Project and is based on the Transboundary Diagnostic Analysis and the Strategic Action Programme, conducted with the support of UNDP Timor-Leste.

The study identifies that most critical points are located near river mouths or estuaries where rivers meet the sea. It highlights growing concerns that pollution caused by sedimentation, plastic waste and abandoned fishing gear is destroying marine habitats (corals, mangroves and seagrass beds) and endangering marine life.⁹³

The lack of wastewater treatment processes, poor waste management and processing, weak barriers between water resources and the ocean, and the absence of recycling systems all contribute daily to the increasing amount of plastic and marine debris entering Timor-Leste's seas.

The Government is aware of this situation and is actively seeking solutions to address the threats of plastic marine pollution and other sources of marine contamination. In addition to Decree-Law No. 37/2020 on the 'Sale, Import and Production of Bags, Packaging and other Plastic Objects', and Decree-Law No. 2/2017 on the Urban Solid Waste Management System, as well as regulations on environmental impact assessments and environmental management plans, a national zero-plastic policy has also been established.

As mentioned, Decree-Law No. 37/2020 contains provisions prohibiting the 'introduction into consumption of any non-recyclable, non-biodegradable or non-degradable single-use plastic packaging or object for 13 items. However, according to a study carried out by the University of Georgia, 'Circularity Assessment Protocol for Timor-Leste', of December 2024, the ban is in force for only two of the 13 proposed items (single-use bags and foam takeaway containers), with single-use items still widely available for purchase and frequently disposed of in the rubbish. In the short term,

finalising and implementing regulations for the other 11 items, as well as increasing inspections, monitoring and other enforcement measures, could have an immediate impact. On the other hand, according to the same report, beverage containers could be a promising area to focus on in the short term, as the necessary infrastructure to support a deposit return system already exists in the country, which could also generate employment.⁹⁴

Internationally, Timor-Leste supports the formulation of a treaty on plastics, including the maritime sector, and has been participating in the ongoing negotiations under the auspices of the UN. Additionally, Timor-Leste has ratified the legal instruments of the International Maritime Organisation related to marine pollution, including the International Convention for the Prevention of Pollution from Ships (MARPOL), and its associated protocols. Timor-Leste is also engaged in collaborative efforts with its regional and international partners to address marine pollution.

There are, however, gaps to be filled in government efforts, particularly at the institutional level, such as overlapping jurisdictions and lack of coordination, planning and adequate budgeting — especially in rural areas and waste management; and at the legislative level, such as lack of regulation, enforcement mechanisms and weak awareness of the fact that marine pollution originates on land.

The Government of Timor-Leste recognises the importance of protecting and preserving the marine environment from pollution threats and acknowledges the widespread use of plastics in the country, particularly as containers for food, beverages and other daily uses, as well as the pressing need for ambitious policies in waste management.

For this reason, the Government of Timor-Leste is committed to better planning and budgeting to prevent marine pollution, including efforts not only in urban but also rural areas (since much of the plastic originates in rural areas and is transported through rivers), and also taking action with fishers and all vessel users to prevent plastic waste from entering the sea, while enforcing and monitoring MARPOL rules.

Regarding solid waste management, the Government will work to improve waste collection and management programs across the country, as well as enhance recycling initiatives, avoiding the burning of solid waste, which is not environmentally sustainable.

Strategic Objectives:

- Fulfil international commitments and obligations to combat plastic pollution, including engagement in international negotiations on the topic, as well as participation in other conventions and international mechanisms under UNCLOS.
- Improve the implementation of MARPOL guidelines.
- Accede to international conventions and treaties aimed at protecting human health and the marine environment from harmful effects that may result from inadequate hazardous waste management, as well as preventing the spread of marine pollution, including through toxic plastic waste.
- Protect Timor-Leste's marine environment and marine ecosystems from marine pollution, including more immediate action needed in relation to marine plastics, including enforcement and sanctioning measures, through a holistic approach.

- Mobilise the engagement of international and national stakeholders, in close collaboration with the Government, including the private sector, non-governmental organisations (NGOs) and the Timorese population, to combat marine pollution and promote adaptive solutions for the reduction, recycling and reuse of polluting materials, particularly plastics.
- Strengthen national campaigns on the 3Rs Policy (Reduce, Recycle and Reuse), in association with the National Ocean Literacy Programme.
- Promote the development of a Circular Economy in the country, with particular attention to recycling, reuse and repair of plastic materials, supported by sectoral training and incentives for public and private stakeholders.
- Raise awareness on Health and Environment issues by improving the management of biological, organic and toxic waste, with particular emphasis on clinical waste management, screening and random testing for cases of contamination, allergies, infections or bacteria, in both terrestrial and marine environments.
- Promote action against marine pollution, particularly plastic waste, and promote improvements in plastic collection and waste management systems, including through the “Blue Fish” campaign.

5.2.4 PILLAR 6: Carbon Sequestration

«Seagrass meadows and mangroves are among the most important carbon sinks in the biosphere. They are essential filters of carbon pollution, plastics, heavy metals, and oil. They serve as a purification mechanism for the sea.»

Carlos Duarte, Researcher and Executive Director of the Global Coral Reef R&D Platform

Carbon sequestration in the context of the Blue Economy — known as blue carbon — refers to the carbon dioxide captured by the ocean and coastal ecosystems. This carbon is stored in the form of biomass and sediments in mangroves, salt marshes, and seagrass meadows.

Blue carbon represents the most effective, though still underexplored, method in Timor-Leste for long-term carbon capture and storage. It reduces the concentration of greenhouse gases and contributes to climate change mitigation.

Improving our understanding of the global carbon cycle will help to develop more effective public policies in this area. It is important to highlight that over half (55%) of the green carbon captured annually worldwide — that is, carbon captured through photosynthetic activity — is captured by marine organisms. This oceanic carbon cycle is dominated by micro, nano, and picoplankton, including bacteria and archaea. Despite marine plant biomass accounting for only 0.05% of the total terrestrial plant biomass, the same amount of carbon circulates annually, making these organisms extremely efficient carbon sinks.⁹⁵

Globally, conservation efforts have focused mainly on land ecosystems, particularly the protection of tropical forests, with the aim of mitigating climate change. More recently, there has been growing global awareness of the crucial role of marine ecosystems.

Climate change mitigation can also be achieved through the protection and restoration of natural ecosystems. In Timor-Leste’s case, where a sharp reduction in fossil fuel production could compromise development, it is essential for the Government to identify options that help mitigate climate change while having neutral or even positive impacts on national development.

In this regard, the Government is committed to promoting, protecting, and conserving its valuable blue carbon ecosystems, namely:

- Mangrove forests, as essential forest environments for carbon sequestration.
- Saltwater marshes, found in intertidal areas, containing partially and fully submerged vegetation adapted to both freshwater and saltwater conditions.
- Seagrass meadows, as vegetation that creates a significant reservoir of buried carbon.

From the holistic and integrated approach intended through the Policy and Action Plan for the Promotion of a Resilient and Sustainable Economy of the Sea in Timor-Leste, protecting coastal areas — where these blue carbon sinks are found — is essential for sustainable development. These ecosystems provide crucial services such as water filtration, reduction of coastal pollution and nutrient loads, sediment stabilisation, coastal erosion protection, and buffering against extreme weather events.

These are valuable ecosystem services with economic relevance. To reduce the degradation of coastal ecosystems, unsustainable practices in natural resource use will be curbed, and watershed and waste management will be improved.

The protection and restoration of coastal areas through coordinated integrated management is a necessary investment to enhance the productivity of coastal activities, food security, and the health of communities.

Likewise, the Government will conduct studies and based on science, promote investment in blue carbon with the aim of enhancing ecosystem services and contributing to climate change mitigation and adaptation.

The Government will evaluate and strengthen projects already underway in this sector, such as:

- *Carbon Offset Timor Foundation (FCOTI)*, created in late 2018 to develop reforestation initiatives, namely the Halo Verde Community Forest Carbon project under Plan Vivo certification. By mid-2021, the project had already supported more than 1,000 smallholder farmers, planted more than 250,000 trees on approximately 150 hectares and issued nearly 20,000 tonnes of certified carbon credits, including hundreds sold to international buyers. On average, the project estimates a net sequestration of around 247 tCO₂e per hectare (after the risk reserve) and aims to expand to 322 hectares by 2029.
- *WithOneSeed* (also known as “Ho Musan Ida”): managed and implemented by the Ho Musan Ida Foundation and the xpand Foundation, the first community forestry programme in Timor-Leste to be certified by the Gold Standard. Launched in Baguia in 2010, it now involves over 1,000 farmers managing more than 600,000 trees, which has helped to reduce soil degradation, restore forest cover and build village economies. In 2024, the Ho Musan Ida (WithOneSeed) Programme received an AA rating from BeZero, a leading rating agency in the carbon markets, placing it among the top 2% of reforestation/afforestation projects globally.

- *Rai Matak*: the first programme in Timor-Leste to receive Gold Standard certification under a National Activity Programme (2024). Currently active in five municipalities — Baucau, Lospalos, Viqueque, Liquiçá and Covalima — the project's 50-year vision includes working with up to 20,000 smallholder farmers to plant up to 10 million trees. The Rai Matak initiative is based on the successful Ho Musan Ida community forestry model and was initially supported by the EU, which provided funding to a consortium comprising Oxfam, the xpan Foundation and the Ho Musan Foundation to establish the Rai Matak Foundation. The initiative is now being carried forward by a consortium comprising the Rai Matak Foundation, the xpan Foundation and the Pollination Group.

In addition to blue carbon investment, the Government of Timor-Leste is also planning to reuse the depleted oil field for CO₂ storage. The concept of storage is now an important and recognised means of mitigating climate change. Carbon capture and storage (CCS) is an alternative to reducing CO₂ emissions from the production and use of fossil fuels. CCS is a recently applied technology to prevent the accumulation of gas in the atmosphere, transporting it to a storage site to permanently isolate it from the Earth's atmospheric carbon cycle by injecting it into depleted oil and gas reservoirs in the Timor Sea.

Some benefits for Timor-Leste with the application of this technology are:

- The use of CO₂ as a tool to maximise the extraction of remaining gas resources in the oil field;
- Geological storage of CO₂, in addition to extending the life of these fields, could usher in a new and valuable carbon services industry for Timor-Leste, creating new jobs and a new source of revenue for the nation.

Strategic Objectives:

- Promote integrated policies to combat the degradation of coastal ecosystems, including unsustainable practices in the use of natural resources, watershed management and waste management.
- Promote and restore coastal areas through coordinated integrated management, to improve the productivity of coastal activities, food security and community health.
- Promote reforestation and agroforestry, delivering benefits in terms of carbon removal and coastal resilience, by stabilising soils, improving watershed management and increasing biodiversity — creating important synergies between forest and marine ecosystems.
- Promote community-led and socially inclusive project design: FCOTI and WithOneSeed/Rai Matak are based on partnerships with subsistence farmers and women, using annual incentive structures, farmer cooperatives and training to ensure equitable benefit-sharing and build local ownership — strategic elements for sustaining long-term carbon interventions.
- Prepare carbon markets and policies, notably by ensuring Plan Vivo and Gold Standard certification, engaging in voluntary carbon markets and establishing enabling national instruments — designed to be scaled up through carbon agriculture policies, legal frameworks and greenhouse gas accounting systems in the land sector, currently supported under the development of the EU-TA carbon agriculture policy.

- Contribute to long-term carbon sequestration and storage, thereby combating climate change and providing improved living conditions for Timorese people and for humanity.
- Develop community-led nature-based solution projects, including mangrove restoration, salt marsh preservation and seagrass meadow conservation.
- Access voluntary carbon markets and unlock new sustainable income opportunities to support local livelihoods.

5.3 AXIS 3: Sustainable Use (LIVING WITH THE SEA)

«The fight against poverty, maternal and child undernutrition, and food insecurity, along with job creation and the improvement of infrastructure, are priorities on our agenda. We must remain steadfast in our efforts to diversify our economy, reducing excessive dependence on oil and gas revenues, and investing in new, economically viable and productive areas that can offer a promising future for our youth. »

José Ramos-Horta

The country is blessed with natural resources, notably oil and gas reserves, whose revenues have supported national development for over two decades. However, these are finite natural resources, and the Government is committed to investing in economic diversification, particularly through the Blue Economy.

The aim is to connect Timorese communities more deeply with the sea and the sustainable development opportunities it provides. This includes not only the preservation and conservation of its biodiversity but also the sustainable use of marine resources, generating employment, income, and improvements in socioeconomic conditions — including in health, education, culture, sports, and recreation.

The Government will therefore invest in the development of the fisheries, aquaculture, tourism and renewable energy sectors, which will bring additional economic returns and other benefits to Timor-Leste. This includes fostering new economic and industrial sectors, encouraging the development of the national private sector, and promoting foreign direct investment in the country.

This strategy also involves strengthening international cooperation through knowledge sharing, experience exchange, and investment, with the ocean as the common denominator — an ocean that connects Timor-Leste to the world and the world to Timor-Leste, while confronting shared challenges that threaten the security, stability, and sustainable development of many nations, particularly Small Island Developing States and Least Developed Countries.

5.3.1 PILLAR 7: Blue Tourism

«Our vision is that, by 2030, we will have a vibrant and attractive tourism sector that significantly contributes to employment across the country, is economically, socially, and environmentally sustainable, helps promote a positive image of Timor-Leste abroad, and is an industry in which people want to work. »

Rui Maria de Araújo

Blue tourism is the internationally adopted concept referring to sustainable maritime tourism sector focused on coastal and marine areas. One of its main characteristics is that it is not solely centred on

economic growth, but also on promoting activities that support ocean, sea, and freshwater conservation — with a priority on fair and equitable development of local communities.

As such, the Government regards the development of blue tourism as a strategic priority and as a means of balancing the use of marine resources with a view to protecting the environment, whilst promoting practices that minimise the ecological impact.

The country offers numerous opportunities to expand its current ecotourism offerings through a high-value, low-volume community-based model. This includes investing in the expansion of eco-resorts and homestay accommodation in new parts of the island, creating jobs in the tourism sector.

This homestay tourism model can lead to the integrated development of activities that benefit entire communities and is also an attractive alternative for tourists seeking immersive experiences in nature, culture, and tradition.

In addition, the development of new high-standard eco-resorts can attract high-value tourism, generating greater economic benefits for communities. This expansion will require infrastructure investment, such as improved electricity, basic sanitation, telecommunications, road networks, and transport options to support tourism in new areas and deliver high-quality tourist experiences.

To achieve the objectives of sustainable tourism development, the Government will focus on strengthening local capacities through training and the inclusion of young people and women. One way of doing this is through the participation of local communities in the community management of reefs and fishing areas, supported by traditional regulations such as Tara Bandu. The ministry responsible for tourism plans to create training and awareness programs for local community groups that provide tourism services (tour operators, tour guides, women entrepreneurs in tourism infrastructure, and Ataúro divers 'WAWATA TOPU', who symbolise traditional ecological knowledge, resilience and female empowerment).

Furthermore, investment in the port and aviation sectors is essential to meet tourism sector growth goals. The Government is actively working on evaluations, procurement, and financing processes for such developments.

The Human Capital Development Fund has already supported the training of human resources in the tourism sector. The Government now aims to strengthen education, training, and capacity building in the Blue Economy field, including sustainable tourism.

Timor-Leste can benefit from its strategic location in the Asia-Pacific region which has a growing international tourism market, and from the nation's forthcoming accession to ASEAN.

5.3.1.1 Coastal Tourism

Coastal tourism is a segment of blue tourism focused on coastal areas, with the beach and sea as the main attractions. This type of tourism is characterised by activities that leverage proximity to the ocean, offering experiences common to most island nations and coastal regions — particularly in those with tropical climates that allow year-round tourism opportunities.

The Government will promote selected coastal destinations both nationally and internationally and will establish certification schemes for hotels and tour operators that follow sustainable practices.

Within this context, coastal tourism will be linked to the promotion and restoration of coral reefs and the conservation and protection of marine species. This includes the development of community-led activities, such as the creation of turtle nesting sponsorship sites.

Beyond the beach and sea, it is possible to promote cultural and gastronomic experiences, as well as conservation, leisure, and sports activities.

Strategic Objectives:

- Sustainable development throughout the country, prioritising practices that preserve marine ecosystems, coastal zones and other aquatic environments such as rivers, lagoons and waterfalls, and promoting the responsible use of natural resources. This includes the conservation of marine and aquatic biodiversity and the protection of critical habitats such as coral reefs, mangroves and estuaries.
- Development of both traditional and innovative activities within blue tourism, such as diving and snorkelling, whale and marine wildlife watching, sustainable and recreational fishing, boat tours, adventure tourism in coastal areas and in access zones to mountain water bodies, as well as nautical and beach sports (beach football and volleyball).
- Encouraging community development by creating conditions for blue tourism to be led by the communities themselves, including professional training and capacity building, subsidies and support through development and seed capital, as well as the transfer of local tourism management in ways that respect local culture and traditions.
- Promoting the local economy and empowering women and young people nationwide through blue tourism activities, including targeted training and capacity building initiatives.
- Encouraging traditional practices that promote marine conservation and blue tourism, such as Tara Bandu.
- Promoting environmental education and awareness, particularly through ocean literacy, while training host communities and visitors alike in sustainable practices and ecosystem preservation, with both national and international impact.
- Developing the national private sector, particularly tourism operators and related sectors, by providing the conditions and means for low environmental impact tourism development, including sustainable transport, ecofriendly accommodation and proper waste management.
- Increasing the number of tourists visiting the country, under strict sustainability rules regarding entry, use and tourism practices.
- Positioning Timor-Leste as a destination of excellence, characterised by low volume and high-quality whale watching, diving and nature tourism.
- Implementing the National Tourism Policy in an integrated and sustainable manner, with concrete action plans that ensure financial and environmental sustainability.
- Improving the legal and regulatory framework of the tourism sector.
- Investing in international tourism promotion and marketing campaigns for Timor-Leste.
- Creating financial incentive funds to protect biodiversity and ecosystems. This Blue Tourism Community Support Fund would be allocated exclusively for community use, based on proposals from organisations, associations and cooperatives in areas such as eco

establishments for handicraft production and trade, local restaurants, seaweed production and related activities.

- Implementing Coastal Zone Management Plans (POOC), linking coastal land use regulation with an economic development strategy centred on coastal tourism, safeguarding environmental concerns and ensuring rational and sustainable management of natural resources, thereby integrating spatial planning with investment strategies.

5.3.1.2 Maritime or Nautical Tourism

Sustainable maritime or nautical tourism is also an important component of Blue Tourism, though more specific in focus, as it primarily involves tourism and recreational activities carried out on the water using boats and other water-based transportation.

In this regard, the Government will assess the feasibility of promoting activities such as boating and boat tours, diving and snorkelling, sustainable recreational fishing in designated offshore areas, as well as cruises or maritime expeditions to be developed by the private sector.

The Government will also promote the necessary conditions to map and publicise Timor-Leste's top diving locations. Globally, "premium" dive sites are typically mapped to facilitate access and promote this rapidly growing tourism niche. Accordingly, through integrated approaches involving relevant stakeholders in tourism, the environment, dive operators, and environmental conservation institutions, the Government will promote dive tourism, including the establishment of appropriate information centres and the development of basic support infrastructure for this activity.

Considering national priorities and the need to manage public resources while ensuring that these activities are carried out with equipment and practices that promote the highest levels of sustainability, the development of nautical tourism is presented here as a long-term policy. This is without prejudice to the assessment of investment projects and environmental impact evaluations, particularly concerning offshore activities, cruises, and maritime expeditions.

5.3.1.3 Nature Tourism

«A beautiful country like Timor-Leste, with its history of determination and heroism, should not be promoted through a tourism industry that creates a small modern world of luxury hotels, but rather through the creation of conditions for ecotourism, as a means of promoting the identity, personality, and unique character of our people, with a more human dimension in relationships between people.»

Kay Rala Xanana Gusmão

Natural conservation zones, including protected areas and national parks, aim to safeguard ecosystems by limiting commercial and other human activities. They allow for research and educational activities, as well as cultural, tourism, and leisure activities. Timor-Leste's first protected area is the Nino Konis Santana National Park, which will play a strategically important role in developing the country's sustainable tourism, considering both its terrestrial and marine areas, rich in biodiversity and cultural and historical heritage.

In addition, various studies and reports highlight sites of international ornithological significance that should be protected. Bird species are intrinsically linked to both marine and terrestrial biodiversity, especially in mountainous areas and inland waters.

Ornithological importance is frequently recognised in international treaties and conventions, such as the Convention on Migratory Species and the Convention on Biological Diversity, which encourage the protection of bird species and their habitats.

The *Strategic Development Plan 2011-2030* identified several areas of potential interest for conservation, in addition to Mount Manucoco in Ataúro, such as Tilomar, Ramelau, Fatumasin, Matebian, Kablake, Builo, Clere-Lore, Mount Paitchao and Lake Iralalero, Mount Diatuto, Be Male-Atabae, Maubara, Mak Fahik and Sarim, Tasitolu, Areia Branca, Mount Curi and the Irabere and Iliomar Estuary, most of which have important water resources.

The Government will also promote nature tourism in the western region of the country, with a focus on the hot springs of Marobo, combining nature conservation with historical and cultural heritage.

5.3.2 PILLAR 8: Living Resources Exploitation

«If we want to care for our planet and all living beings on it, the conservation and sustainable use of the ocean and its resources must be our starting point.»

Francisco Kalbuadi Lay

The sustainable exploitation of living resources refers to the use of living organisms — such as fish, crustaceans, plants, and other biological resources — to ensure their populations and associated ecosystems remain healthy and productive over time.

The northern sea of Timor-Leste (Tasi Feto) is characterised by a narrow coastal shelf, coral reefs, high temperatures, low nutrient levels due to limited river runoff, and absence of sea upwellings. This results in low recruitment of commercial species and limited phytoplankton production due to low oxygen levels.

The southern sea of Timor-Leste (Tasi Mane), exposed to stronger wave action and winds and lacking the protective barrier of multiple Indonesian islands, receives more nutrients — both from river input and sea upwellings events. Its broader continental shelf retains nutrients within the photic zone, enabling primary phytoplankton production.

Despite being an island nation, Timor-Leste has a limited tradition of fishing. This is often attributed to cultural factors and environmental conditions: poor fishing potential in the north and hazardous fishing conditions in the south. Furthermore, studies show that although fishing effort has increased in recent years (more fishers and boats), total catches have not increased proportionally. This may indicate either that marine capacity is reaching its limit in certain areas or that there is little potential for growth without environmental damage.

It is therefore essential to develop and implement strategies to enhance fish production.

Other sectors, such as aquaculture development and sustainable marine biotechnology, offer opportunities for industrial diversification and marine ecosystem restoration.

5.3.2.1 Fisheries and Aquaculture

«There are hundreds of millions of traditional fishers in remote, rural, and urban communities worldwide. With the right support, they can fundamentally reshape our relationship with the ocean. They can rebuild their fisheries, strengthen their livelihoods, and improve food security. They can restore ocean life and maintain healthy environments for generations to come.»

Blue Ventures

The *Strategic Development Plan 2011–2030* noted that while the fisheries sector in Timor-Leste was well regulated, law enforcement remained a major challenge requiring improvement.

These challenges persist. However, under the Blue Economy Promotion Framework, the Government now has a strategic opportunity to implement a sustainable fisheries sector that improves Timorese livelihoods and protects the environment.

The Legal Regime for Fisheries and Aquaculture Management stipulates that commercial fisheries must follow the precautionary principle and be sustainable. It restricts commercial fishing to practices that do not harm marine and aquatic ecosystems and requires that fishery management plans be based on prior assessment of aquatic biological resources and the potential environmental impacts of fishing.

The Government is committed to ensuring that both commercial and non-commercial fishing comply with legal frameworks that support the conservation and sustainable use of marine resources. Commercial fishing and seaweed harvesting require authorisation, which can be denied if the activity is deemed harmful to the marine environment, ecosystems, or species preservation.

Even non-commercial fishing may be temporarily banned to protect species and ecosystems—as is already practiced in some areas under community-enforced Tara Bandu customary law.

The fisheries regime also prohibits the discharge of toxic substances into freshwater and marine environments. Any project that discharges wastewater into these environments must be approved by the Government.

Similarly, proposed marine or freshwater aquaculture projects must be pre-approved by the relevant ministry. The fisheries regime applies the “polluter pays” principle and holds parties objectively liable for environmental damage. The fisheries legislation lists protected species, and ministerial regulations define fishing zones, specifying commercially valuable species, allowable sizes and weights, and bycatch limits.

However, the legislation defining fishing zones does so solely based on distance from the coast, without addressing the relationship between fishing zones, marine restocking areas and national marine parks where fishing may be prohibited.

The minimum and maximum fines for infringements were set by ministerial decree, specifying the amounts of the fines in relation to the damage caused to marine and aquatic ecosystems.

In 2004, specific legislation was enacted to criminalise certain harmful practices, such as fishing with explosives or toxins, coral destruction or its removal from the wild, and fishing in protected areas without a license. With the entry into force of the Criminal Code in 2009, this legislation was revoked.

Currently, the ministerial decree listing protected species does not indicate whether species are endangered or threatened. The Penal Code penalises the capture of endangered and threatened species but not protected ones.

The Government will review all fisheries and aquaculture legislation to bring it into line with the Penal Code, current national development priorities, emerging environmental concerns, international commitments, and Blue Economy objectives, including marine spatial planning and marine protected area regimes.

Fisheries and aquaculture are vital to food security and nutrition. Fisheries provide livelihoods, reduce poverty, promote employment and development, and support rural and coastal stability. They also have cultural, recreational, and tourism value.

According to the Ministry of Agriculture, Fisheries, Livestock, and Forestry, fish production fell from 8,630 tonnes in 2019 to 8,060 tonnes in 2023, totalling 40,244 tonnes over five years. The lowest year was 2022, with only 7,104 tonnes produced. Fish accounts for 31% of animal protein in the Timorese diet. By 2030, the Government aims to increase per capita fish consumption to 15 kg, with aquaculture providing 40% of local supply (WorldFish).

The 2019 Timor-Leste Agricultural Census reported that about 60% of agricultural households engage in fishing — 51% for household consumption, 24% for sale, and 26% for both domestic use and social obligations. Overfishing is unsustainable as many resources risk depletion.

In this regard, it is a priority for the Government, in coordination with local authorities, to promote the sustainable management of the community-based fisheries sector by introducing integrated coastal management with the involvement of all relevant stakeholders.

Timor-Leste exports fish and seaweed to China, Vietnam, Hong Kong, the Philippines, Singapore, Spain, Australia, South Korea and Indonesia. The Government will activate monitoring and control systems to increase exports in line with product quality, while ensuring the balance of marine ecosystems under national jurisdiction.

Illegal, unreported, and unregulated fishing poses a serious threat to sustainability and economic development. It undermines environmental sustainability and food security. The Government must urgently invest in surveillance systems and international cooperation to protect its marine resources.

Aquaculture — particularly tilapia and carp farming — plays a significant role in the rural economy. Other promising aquaculture activities include seaweed farming and farming of shrimp, abalone, crabs, and oysters. These can generate income for coastal communities. To ensure sustainable aquaculture development, the National Aquaculture Development Strategy (2012–2030), developed with support from WorldFish, should be reviewed and implemented by the Government.

The Government also intends to develop new strategies to promote sustainable aquaculture, notably using marine microorganisms such as probiotics, and through the development of marine biotechnology, a sector also covered by this policy.

In partnership with WorldFish, in 2019 the Government of Timor-Leste launched the world's first monitoring system for artisanal fisheries. This online dashboard tracks fishing activities almost in real time, including the number and type of fish caught by each vessel. This critically important system should be strengthened and supported by the Government, to develop better public policies for the fisheries and aquaculture sector.

Lastly, the Government will continue to invest in capacity building and technical-vocational qualifications for this sector, including support with equipment and technology, to ensure both economic and environmental sustainability.

Strategic Objectives:

- Protect marine biodiversity and ensure that fish stocks and other marine and aquatic species are maintained at sustainable levels and within a healthy environment.
- Incorporate climate change adaptation and mitigation measures into the management of marine and coastal resources, considering sea level rise, ocean acidification and changes in species migration patterns.
- Integrate a gender perspective into all initiatives, recognising and promoting the fundamental role of women in artisanal fisheries, processing, marketing and marine resource management, and ensuring their equitable access to benefits, training and decision-making.
- Invest in science, research and surveys, including within the framework of the Marine Biodiversity Survey and Study of Timor-Leste, to support responsible fisheries and aquaculture management.
- Ensure structured articulation between scientific studies and the traditional knowledge of local communities.
- Implement sustainable fisheries and aquaculture management programmes through responsible practices that prevent overfishing and the destruction of marine and aquatic habitats.
- Effectively combat Illegal, Unreported and Unregulated (IUU) Fishing.
- Strengthen monitoring, control and surveillance systems.
- Reinforce regional and international cooperation for the shared management of migratory species, the fight against illegal, unreported and unregulated fishing, the sharing of scientific data and best practices, and the harmonisation of conservation measures.
- Engage and support coastal communities whose main activity is related to marine resources, promoting their increased participation in management, protection and conservation decisions.
- Study mechanisms for joint management of marine resources in specific areas, drawing on comparative experiences such as Tonga and the Solomon Islands, with a view to sharing authority, knowledge and responsibility with communities.

- Invest in building the capacity of local institutions for the development and enforcement of resource use rules, including the recognition and implementation of Tara Bandu as a formal instrument, in coordination with municipal authorities.
- Develop outreach campaigns for communities on the benefits of sustainable practices and the importance of marine resources for food security and the healthy development of the Timorese people.
- Review and modernise the legal framework governing fisheries and aquaculture, aligning it with current development needs, emerging environmental and biodiversity concerns, international commitments and the objectives of the Blue Economy.
- Strengthen the capacities of local fishers to improve knowledge and access to know-how, technology and equipment.
- Coordinate the development of the fisheries sector with the development of port infrastructure and its appropriate components.
- Improve aquaculture infrastructure to increase production, alongside training and support for the development of this economic activity.
- Invest in the export market for fishery and aquaculture products.
- Invest in the establishment of fish markets and landing sites, equipped with appropriate refrigeration systems, enabling the State to enforce quality and food safety standards and ensure reasonable pricing, while providing adequate sector monitoring.
- Increase the contribution of fish and aquatic foods to improved nutritional outcomes, incorporating them into government nutrition programmes and recognising improved nutrition as a key outcome of fisheries management.

5.3.2.2 Marine Biotechnology

«Advances in science and technology over the past decade have increased our understanding of the ocean’s biological resources and renewed interest in the field of marine biotechnology. Governments are recognising the potential of marine biotechnology to address some of today’s global challenges and are integrating marine biotechnology into their innovation, national prosperity, and economic and social growth strategies. As marine biotechnology becomes a prominent feature of these strategies, it will be important to ensure that its development is pursued sustainably.»

OECD

Marine biotechnology, also referred to as “blue biotechnology” involves the sustainable use of marine biodiversity to develop innovative and sustainable solutions across various sectors, including food and agriculture, pharmaceuticals, cosmetics, and energy (through biofuels).

Marine biotechnology harnesses marine bioresources — ranging from macroorganisms and microorganisms such as zooplankton, fish and marine mammals, molluscs, crustaceans, bivalves, macro- and microalgae, bacteria, and fungi — to discover bioactive compounds, enzymes, and other products that can be used in technological innovation.

This emerging area of ocean-based applications is in its early stages but represents a significant potential source of job creation and revenue generation provided the balance between sustainable exploitation and the preservation of marine ecosystems is carefully maintained.

Marine biotechnology involves harnessing the unique properties of marine organisms — from fish and algae to bacteria and fungi — for applications in medicine, agriculture, cosmetics and industry. Timor-Leste stands to gain three types of benefits in this sector:

- **Supporting ecosystem conservation and health:** marine biotechnology provides the tools to understand and protect biodiversity. Genomic studies can monitor ecosystem health, identify species resilient to climate change and develop non-invasive methods to track protected species. Furthermore, it can create economic value from biodiversity without extraction, thereby encouraging its conservation. For example, the genetic information of a coral or sponge may be more valuable in the long term than the physical organism itself.
- **Enabling sustainable aquaculture:** using marine microorganisms as probiotics. Timor-Leste's aquaculture sector, identified as a priority for food security and poverty reduction, faces challenges such as disease outbreaks and water quality issues. The development and use of locally sourced probiotic strains — beneficial bacteria that can be added to the feed and water of fish or shrimp — could revolutionise this sector. These probiotics can not only improve animal health, but also enhance the growth and survival of stocks, whilst improving water quality, creating a cleaner and more sustainable farming environment.
- **Unlocking high-value economic opportunities:** Timor-Leste's marine organisms are a treasure trove of new biochemical compounds. This potential for 'bioprospecting' could lead to the development of pharmaceutical products, including new antibiotics, anti-cancer agents and anti-inflammatory drugs derived from marine microbes and invertebrates, and cosmetic products, including sunscreens, anti-ageing creams and skin repair products, derived from algae and compounds derived from corals. Finally, biotechnology also enables the development of industrial enzymes: enzymes from deep-sea microbes that function under extreme conditions can be used in biofuel production, food processing and waste management.

Although Timor-Leste does not yet have the national capacity to develop marine biotechnology projects independently, it must follow this field closely. Global trends suggest that marine biotechnology is becoming increasingly relevant, especially considering international projections forecasting that global food demand in 2050 will be twice the current levels, along with a growing demand for natural ingredients derived from the largely unexplored ocean environment.⁹⁶

Strategic Objectives:

- Monitor international developments in the field of marine biotechnology and assess the challenges and opportunities facing this sector.
- Promote the sustainable use of national marine resources, while beginning to build national capacity to explore their present and future potential.
- Contribute to science and innovation, particularly through strategic partnerships in key development areas such as health, food and nutrition, agriculture and fertilisers, and biofuels.
- Develop a clear regulatory framework for bioprospecting that ensures benefits are shared fairly with the nation.

- Promote international partnerships with leading research institutions and biotechnology companies.
- Promote and facilitate the development of biotechnology that contributes to the restoration of marine ecosystems.

5.3.3 PILLAR 9: Exploration of Non-Living Resources and Energy Production

The exploration of non-living marine resources and sustainable energy production refers to practices that aim to ensure the responsible and balanced use of natural resources without compromising environmental equilibrium or the long-term development capacity of future generations.

These non-biological resources such as minerals, metals, water, and fossil fuels, have low or no regenerative capacity and are formed over millions of years, raising critical sustainability concerns.

In a rapidly changing world that remains heavily dependent on fossil fuel-based energy sources, transitioning to cleaner energy is a major challenge, especially as energy security concerns become increasingly urgent.

Therefore, the energy transition process — intended to replace fossil fuels with renewable energy sources — is a critical commitment to meet global carbon neutrality targets by 2050. This must be conducted gradually and consistently to avoid disruptions to energy supply chains and human development while mitigating climate change.

Timor-Leste closely follows these issues and, while acknowledging the need for carbon neutrality, remains reliant on its available resources to finance the transition, build multidisciplinary skills and qualifications, and support the socioeconomic development of its people.

5.3.3.1 Hydrocarbon Production

Hydrocarbon production remains an important source of energy and financing for Timor-Leste, including the extraction and processing of oil and gas in the Timor Sea, counting on the transformation of these resources into land.

Timor-Leste maintains that, despite environmental challenges and the need for a transition to cleaner and renewable energies, this must be a gradual process in its specific national context.

In 2023 and 2024, Timor-Leste actively participated in landmark consultative procedures at the International Tribunal for the Law of the Sea and the International Court of Justice regarding State obligations related to climate change. In these fora, Timor-Leste, a Small Island Developing State and a Least Developed Country, argued that although all countries share a common duty to combat climate change, responsibilities must reflect historical contributions to the problem and differing capacities to address it.

Timor-Leste upholds the following principles:

- The exploitation of non-living marine resources and the sustainable extraction of energy through practices that seek to ensure the prudent and balanced use of natural resources, without compromising the environmental balance and the long-term development capacity of future generations.
- The principle of common but differentiated responsibilities and respective capabilities, which acknowledges that developing and least developed countries such as Timor-Leste should not bear the same burdens as developed nations regarding oil and gas extraction.
- Climate change treaties must recognise the developmental necessity for some developing countries to increase emissions before transitioning to reductions.
- Developed countries must fulfil their obligations to provide financial and technical assistance to support mitigation and adaptation efforts in developing countries.

It is within this transparent framework that Timor-Leste is developing its petroleum sector along the southern coast — the Greater Sunrise project — while emphasising that the most significant marine environmental damage has historically been caused by developed countries.

An independent feasibility study conducted in 2024 by the UK-based firm Wood confirmed that the development of the Greater Sunrise project in Timor-Leste is viable and the most advantageous option for the country, providing significant economic and social benefits.

The study applied rigorous criteria to evaluate engineering, technology, financing, commercial structures, and fiscal, environmental, health, safety, and socioeconomic impacts to assess four main development options: Timor-Leste Liquefied Natural Gas (LNG), Darwin LNG, Ichthys LNG, and a new LNG facility in Australia.

Although all four options were deemed technically viable, the study concluded that the Timor-Leste LNG option offers the lowest operational costs and would yield the greatest overall, direct and indirect, returns for Timor-Leste. It would also have a strong positive impact on the country's socioeconomic development.

Moreover, the study indicated that the Timor-Leste option would produce the highest impact on GDP, employment generation, and returns for the Sunrise Joint Venture while also benefiting Australia through direct upstream revenues.

The Greater Sunrise gas fields are located approximately 140 km south of Timor-Leste's coastline. The Sunrise Joint Venture includes TIMOR GAP (56.6%), Woodside (33.44%), and Osaka Gas Australia (10%).

Without development of the petroleum sector, Timor-Leste may lack the capacity to advance its sustainable development and improve living standards for its people, including the necessary measures for economic diversification. By failing to develop and produce these resources, Timor-Leste may struggle to mitigate or adapt to climate change, a global problem to which Timor-Leste has very minimally contributed.

Nonetheless, the Government, in line with international best practices, maintains that all projects related to hydrocarbon production must adhere to strict Environmental Impact Assessment policies

to minimise environmental degradation, with particular emphasis on the protection of marine ecosystems.

The Government has prioritised finding concrete solutions to mitigate the effects of terrestrial and marine pollution and climate change through legislation, public policy implementation, and various national projects.

Through Marine Spatial Planning and Management, the Government will safeguard ongoing activities crucial to Timor-Leste's development — namely offshore hydrocarbon production and related upstream and downstream operations — by establishing coordination mechanisms among public authorities and regulators, such as the National Petroleum Authority and the National Minerals Authority, and other stakeholders from the public and private sectors. These mechanisms will ensure efficient and legally binding decision-making processes.

Strategic Objectives:

- Ensure that the development of the Greater Sunrise fields and other fields (Chuditch, Kelp Deep, etc.) in the Timor Sea delivers long-term benefits for the people of Timor-Leste.
- Promote the long-term economic growth of Timor-Leste, including the necessary economic diversification and improvement of living standards for the Timorese population, as well as developing the capacity to mitigate and adapt to the adverse impacts of climate change.
- Ensure that the potential associated with petroleum resources in the Timor Sea is fully developed for the socio-economic benefit of the people of Timor-Leste, serving as a catalyst for development, job creation and GDP growth.
- Ensure appropriate mitigation of the impacts arising from the development of Petroleum Resources in the Timor Sea on the marine environment and its ecological health.

5.3.3.2 Renewable Energy

Sustainable energy refers to the generation and consumption of energy in a way that does not harm the environment and can be maintained over the long term. This includes energy sources that are renewable and have a reduced environmental impact.

The main sources of renewable energy are solar, wind, hydroelectric, biomass, and geothermal power. These are characterised by lower emissions of pollutants and greenhouse gases.

The increasing use of offshore renewable energy will facilitate the energy transition and the decarbonisation of the national economy. It will also create an economic sector associated with the Blue Economy — one that is intended to be competitive and efficient and contribute to job creation and the social and economic advancement of Timor-Leste.

In line with the forthcoming Legal Framework for Maritime Spatial Planning and Management, as well as Timor-Leste's National Electrification Plan and the goal to increase the use of renewable energy sources, especially hydropower, the Government intends to develop a National Emissions Reduction and Energy Transition Plan. This plan aims to launch an international tender for the development of power generation centres based on offshore renewable energy sources.

Within the framework of the National Emissions Reduction and Energy Transition Plan, the Government will draw up a map identifying the locations for power generation centres. This will ensure the appropriate protection and conservation of the marine environment and safeguard the proper land-sea interaction, in accordance with legislation on maritime and terrestrial spatial planning.

Investing in the offshore renewable energy sector, alongside emissions regulation, will enable an efficient and significant reduction in emissions, considering Timor-Leste's international commitments as a developing country, based on the principle of common but differentiated responsibilities.

The Government aims to ensure that by 2030, approximately 50% of its electricity production will come from renewable sources, especially solar. It also plans to convert existing diesel power plants to natural gas, which is a cleaner and more sustainable energy source, taking advantage of the development of the Greater Sunrise fields, as discussed in the previous section.

As is well known, Timor-Leste has access to significant gas reserves in the Timor Sea. The availability of natural gas for electricity production offers the potential for a cleaner and more affordable fuel compared to liquid fuels. From an environmental perspective, for the same amount of electricity generated, carbon emissions from natural gas are considerably lower than those from diesel.

Strategic Objectives:

- Develop the National Emissions Reduction and Energy Transition Plan in an integrated manner, with the involvement of all sectors of government.
- Create the necessary conditions for the transition to renewable energy sources, including the analysis of studies already undertaken for Timor-Leste and, where necessary, the development of new studies through partnerships and international cooperation.
- Develop feasibility and sustainability studies on the use of natural gas for electricity generation, while pursuing efforts to adopt energy sources that are less costly and environmentally responsible.
- Develop human capacity, infrastructure and facilities to accelerate the renewable energy sector throughout the national territory.
- Invest in renewable energy sources to diversify the energy sector, reduce dependence on heavy fuel oils, lower electricity generation costs and protect the environment.
- Conduct feasibility studies to assess the country's renewable energy potential, particularly from wind, solar photovoltaic and hydropower sources, which have not yet been fully utilised.
- Promote consultations with the national and international private sector to enable appropriate practices and financing mechanisms for the development of renewable energy.

5.3.3.3 Salt Production

A developing industry in Timor-Leste that could significantly contribute to economic growth, and job creation is salt production, provided it is developed in a balanced way, integrating production with environmental protection and community involvement.

Salt, beyond being essential for human health, plays a key role in food preservation and is used in various industries. Its versatility and historical importance make it a valuable resource for improving daily nutrition and contributing to economic diversification.

Salt production refers to the process of extracting and purifying this essential mineral, typically in the form of sodium chloride. Used in food consumption and the chemical industry, salt offers significant economic potential for Timor-Leste.

The Government is committed to fostering the sustainable and high-quality development of this industry by enhancing production methods — whether through seawater evaporation, rock salt mining, or extraction from saline areas — while strengthening existing programs supporting domestic salt production.

To that end, the Government intends to invest in and promote the production and commercialisation of:

- Refined salt, the most widely consumed type, extracted from seawater through evaporation and then purified. This process removes impurities and other naturally occurring minerals from seawater.
- Sea salt, also obtained via seawater evaporation. Depending on its region of origin, it may differ in mineral composition, colour (white, pink, black, grey, or mixed), and texture (coarse, fine, or flaky). Less processed, sea salt retains more of the natural mineral richness of seawater.
- Iodised salt, a type of sea salt enriched with iodine—an essential micronutrient for the synthesis of thyroid hormones. Iodine deficiency is common, and supplementation is often necessary.

The World Health Organization (WHO) has recommended the universal iodisation of salt for over two decades. This practice is safe and widely used to address iodine deficiency affecting two-thirds of the global population. Unless contraindicated, iodised salt is recommended over regular sea salt, in appropriate amounts.

Iodine is especially important for the development of the foetus's central nervous system during the early stages of pregnancy. Moreover, iodine deficiency in school-aged children can impair psychomotor development and reduce IQ levels.

As part of its policy in this sector, the Government will develop adequate regulations to establish salt quality standards, contributing to food safety and enabling proper monitoring and inspection. It will also provide incentives for salt producers.

To address iodine deficiency in the population, especially among pregnant women and children, the Government will carry out awareness campaigns on the importance of iodine in the diet.

Ultimately, the Government aims to increase productivity, quality, and competitiveness in the salt sector, including exploring opportunities for export.

Strategic Objectives:

- Identify, through feasibility and environmental sustainability studies, the most suitable locations in the country to expand national salt production.
- Produce salt sustainably and in accordance with international best practices, in quantities sufficient for domestic consumption and for export, including for industrial use.
- Promote production practices and methods that minimise environmental impacts and ensure the sustainability of water resources and local ecosystems.
- Diversify the local economy, with corresponding job creation and improved living conditions for communities.
- Promote scientific knowledge and traditional technologies to innovate salt production and processing, enhancing efficiency and the quality of the final product.
- Promote market and marketing strategies that may include the Timor-Leste brand in gourmet sea salt products, iodised salt and salt for cosmetic use.
- Regulate and raise community awareness regarding the importance of iodised salt consumption, particularly among children and pregnant women.
- Strengthen training and capacity-building within the sector across its various components, from production to promotion, marketing opportunities and market strategy.

5.3.3.4 Seabed Mining

Seabed mining is an industry taking their first steps, aimed at extracting minerals from the seabed and subsoil, such as manganese, copper, cobalt, zinc, and rare earth metals. However, such activities are not without environmental impact, as they may cause irreversible destruction of delicate marine ecosystems.

For this reason, mineral exploitation must be carefully managed to balance economic development with the protection of marine ecosystems and biodiversity. Timor-Leste seeks to ensure that mineral exploitation is conducted sustainably, in a manner that respects marine ecosystems and promotes the well-being of the communities that depend on these resources.

Accordingly, the Government intends to assess the impacts of mineral extraction to ensure the preservation and protection of the marine environment.

In this regard, the Timor-Leste Mining Code, approved in 2021, aims to establish a modern legal framework for the mining sector, capable of attracting investment, maximising returns for the State, and contributing to the diversification of the national economy. This objective is beginning to take shape through the work of relevant national entities overseeing this sector.

Since the development of the mining industry in Timor-Leste, there has been no advanced technology for deep-sea mining activities. The focus has been on establishing the basic infrastructure and legal framework necessary for the development of this industry. Regarding offshore mining, Article 153 of the Mining Code states that ‘until specific rules are approved for this purpose, the provisions of this Code shall apply, with the necessary adaptations to Maritime Mineral Activities’.

The issue of deep-sea mining was discussed and addressed in the drafting of the national Mining Code, with Timor-Leste opting to be prepared for offshore mining activities, if and when approached by investors interested in developing them, and provided that all requirements deemed necessary by the Government are met.

Timor-Leste supports the right of all nations to explore marine natural resources within areas under national jurisdiction. The State reserves the right to authorise such activities, subject to the environmental safeguards established under the Mining Code and to other national interest considerations. The Government expresses a clear preference for offshore mining activities to be conducted in an environmentally responsible manner, avoiding significant harm to marine ecosystems and safeguarding the livelihoods of coastal communities and other relevant economic sectors.

Timor-Leste does not oppose mining activities in the international seabed area provided that they are carried out in an environmentally responsible manner and in accordance with international law and best practices.

In summary, Timor-Leste's economy, and therefore its people, may benefit from offshore mining activities conducted within areas under its national jurisdiction. Such activities can generate state revenue through taxes and royalties, create local employment, and stimulate the growth of a domestic business sector.

Recognising the risks posed by offshore mining, particularly to coastal ecosystems upon which many Timorese communities depend for their livelihoods and which also hold future economic potential through tourism, the Government commits to ensuring that any offshore mining activity is planned and implemented in an environmentally responsible manner, avoiding undue or excessive risks and costs.

Strategic Objectives:

- Ensure that the exploration of marine mineral resources complies with sustainability criteria, minimising environmental and social impacts.
- Ensure that mining activities demonstrate a positive cost–benefit balance in relation to the potential impacts on marine ecosystems and biodiversity.
- Conduct scientific research studies and monitor international trends, including through international cooperation, to determine Timor-Leste's position regarding seabed mining activities.
- Implement the Legal Regime for Marine Scientific Research within the national maritime space.

5.3.3.5 Desalination

Desalination is the process of removing salt and other impurities from seawater or brackish water, converting it into potable water. This process is particularly important in arid regions or where freshwater availability is limited, as it allows seawater to be used as an alternative source of drinking water. This is especially relevant for potable (drinking) water supply in areas such as Ataúro.

On the other hand, given the severe saltwater intrusion, particularly along the north coast, the Government will consider investing in sustainable desalination technologies, including through technical training programmes to prepare technicians capable of operating systems that ensure water security without causing negative impacts through brine discharge.

Strategic Objectives:

- Conduct feasibility and environmental sustainability studies to determine the most suitable locations for desalination projects, in accordance with local needs.
- Increase the availability of potable water in regions facing water scarcity, or reduce pressure on natural water resources, with a view to enhancing sustainability.
- Ensure water availability during dry seasons and implement pilot projects as part of adaptation to the impacts of climate change.
- Promote technology, innovation and human resource capacity-building to operate desalination systems to secure essential goods for the population, based on sustainable management practices.

5.3.4 PILLAR 10: Maritime Transport and Port and Logistics Development

5.3.4.1 Infrastructure

The use of submarine cables is critical for human development and progress. At present, international submarine cable networks account for nearly all global data traffic transmission. This is largely due to technological advancements over recent decades, which have enabled the growth of mobile communications and widespread use of the Internet.

Alongside cables, international submarine pipelines have also played a fundamental role, particularly in the transportation of oil and gas. As such, both submarine cables and pipelines are essential infrastructure that must be protected.

The practice of States over time regarding the use of submarine cables and pipelines is codified in international law, namely through UNCLOS and the Convention for the Protection of Submarine Telegraph Cables, signed in Paris on 14 March 1884 and the Convention on the High Seas and the Convention on the Continental Shelf, both signed in Geneva on 29 April 1958.

UNCLOS acknowledges in its preamble the importance of establishing a legal order for the seas and oceans that facilitates international communications, expressly recognising the freedom of all States to lay submarine cables and pipelines in their EEZ, on the continental shelf, and in the high seas. However, this freedom does not extend to the territorial sea and internal waters of other States, where there is no right for States to lay such infrastructure. In the EEZ and continental shelf, States must respect the sovereign rights and jurisdiction of the coastal State as provided under UNCLOS.

In addition to the legal framework governing the laying, maintenance, and removal of submarine cables and pipelines under international law, it is essential to regulate these activities within the national legal system, especially in relation to exclusive uses, and to ensure proper land-sea interaction where such infrastructure connects to the shore.

Therefore, beyond regulating Timor-Leste's rights and duties concerning the placement, maintenance, and removal of submarine cables and pipelines, it is necessary to legislate these activities within the new legal regime for the spatial National Maritime Space Planning and Management, ensuring coherence with relevant existing legislation, such as the Environmental Framework Law, and with terrestrial spatial planning instruments.

Finally, the development of the Information and Communication Technology Agency will play a significant role in developing digital solutions for the Blue Economy, by collecting, analysing and disseminating marine data, and through applications that improve the efficiency and safety of maritime operations.

Strategic Objectives:

- Promote and develop the communications sector, notably mobile communications and internet use, through submarine cable connectivity.
- Fulfil international commitments undertaken and develop domestic legislation in accordance with those commitments.
- Regulate the rights and obligations of Timor-Leste concerning the laying, maintenance and removal of submarine cables and pipelines, within the legal regime governing maritime spatial planning and management of the national maritime space.
- Strengthen the capacities of the Information and Communication Technologies Agency (TIC TIMOR, I.P.) to enhance the efficiency and security of maritime operations.

5.3.4.2 Port and Logistics Development

«The geopolitical context of the Timor Sea favours the role of the sea as a driver of national development, notably through a port system, with maritime security emerging as a key challenge to this national ambition. »

Donaciano Gomes

The development of port and logistics infrastructure is essential for enabling Timor-Leste to import critical goods and equipment, thereby strengthening and diversifying the national economy. At the same time, it establishes the foundation for future competitiveness in the export of national products.

Maritime transport and port development are critical components of Timor-Leste's Blue Economy, serving as key conduits for trade, economic growth, and sustainable development.

Timor-Leste's geographical position at the crossroads of Southeast Asia and the Pacific Islands places it near key shipping routes through the Ombai and Wetar Straits. The development of maritime trade, transport, and logistics along these straits should be a central focus in promoting the Blue Economy in Timor-Leste.

During Portuguese colonial rule, maritime infrastructure development was minimal, aimed primarily at facilitating limited trade and administrative activities. After the Indonesian occupation, Timor-Leste inherited underdeveloped and poorly maintained port infrastructure. In recent years, the Government has prioritised the enhancement of maritime infrastructure as part of its broader economic development strategy. Efforts have been made to modernise the main port in Dili, increasing its capacity to accommodate larger vessels and growing cargo volumes. In addition, the Government has invested in the new Tibar Bay Port, equipping it with modern facilities to ensure fast and efficient movement of containers and cargo, and enabling it to handle vessels significantly larger than those served by the old Port of Dili.

Efficient port operations significantly reduce the cost of goods, enhance competitiveness, and stimulate economic activity. By developing maritime transport and port infrastructure, Timor-Leste can better integrate into regional and global markets. Improved connectivity facilitates participation in regional trade agreements and initiatives, such as the ASEAN Economic Community, thereby supporting economic diversification and resilience.

The development of modern port networks and marinas, equipped with floating pontoons and fingers, constitutes essential infrastructure for safety and access to mooring facilities. Furthermore, this infrastructure supporting the maritime sector could serve as an operational hub for economic activities and services.

The Government's long-term mission will be to develop maritime-land interface infrastructure, supporting the tourism and commercial sectors, including through technical and logistical support. This should include:

- **Naval Maintenance:** the establishment of workshops and companies specialising in the repair and maintenance of engines (inboard and outboard), marine electronics, fibreglass (hulls), rope-making, sail-making and all rigging.
- **Logistics and Supply:** safe and regulated fuel supply services, provision of drinking water, waste management, and the supply of provisions and catering specifically for vessels.
- **Safety and Rescue:** the existence of a professional fleet requires the capacity for an immediate response. The facility must include a base for Search and Rescue (SAR) services, ensuring that tourism, fishing and commercial activities are carried out in accordance with international safety standards.

The Government will continue to invest in the development of the Tibar Bay Port system while also building efficient operational infrastructure in regional port facilities, including the development of new ports. This aims to ensure that maritime transport remains a viable option for the movement of people and goods, ultimately benefiting both local communities and national and international private sectors.

As a coastal State, Timor-Leste must engage in strategic geopolitical-economic planning for the development of port services, manufacturing, and value-added industries. These industries should be located along the country's navigable maritime coastline and supported by bilateral agreements with third countries. Timor-Leste can generate income from leasing land and maritime spaces for the transit of goods and people or for control and use of critical sea lanes through the Ombai and Wetar Straits. Revenue from leasing national assets or investments in strategic port and logistics infrastructure and manufacturing will contribute to the growth of the maritime economy by providing a wide range of nationally relevant strategic services.⁹⁷

The Government will also undertake studies to incorporate sustainable practices and technologies in the construction and operation of new ports and terminals. These may include the installation of solar panels and waste management systems, alongside the necessary monitoring and enforcement mechanisms for port activities.

Strategic Objectives:

- Develop a national port network and maritime–land interface infrastructure with the capacity to provide logistical services across the country, prioritising key locations in terms of tourism, industrial and fisheries development.
- Conduct feasibility studies for the construction of the Port of Manatuto and for the establishment of a national maritime line, to facilitate coastal shipping and coastal connectivity, as well as to provide maritime transport services for passengers and cargo at various points along the national coastline.
- Restructure and modernise the former Port of Dili for its conversion into the Dili Convention Centre II, ensuring that the space reflects the maritime identity of Timor-Leste.
- Undertake studies to incorporate sustainable practices and green technologies into the construction and operation of new ports and terminals, such as the installation of solar panels and waste collection and management systems.
- Strengthen the regulator and maritime authority, including the improvement and modernisation of its regulatory framework.
- Promote the safety of navigation and international maritime traffic in national waters.

5.3.4.3 Maritime Transport and Navigation

«Maritime transport is the backbone of global trade, connecting nations and facilitating the flow of goods and services across the ocean worldwide.»

John M. McGowan

A national maritime transport and navigation system is fundamental for the economic development of Timor-Leste, contributing directly to the advancement of the Blue Economy.

By expanding and enhancing the competitiveness of national maritime transport, and integrating it with land and air transport, ports and logistics, trade, and other maritime support services, Timor-Leste can significantly increase its economic potential.

The Ombai and Wetar Straits serve as alternative routes, frequently used by some of the largest oil tankers transiting between the Persian Gulf and Japan. This route is considered one of the safest and is also used by vessels travelling between Australia, the Java Sea, and East Asia. The development of the maritime industry, along with the growth of trade hubs, regional centres, and navigation centres, places the country in a position to potentially become a vital transport asset in the Southeast Asian and Pacific regions.

Regulatory provisions, however, remain a major challenge in the maritime transport sector. The organisation of the maritime transport sector has a significant impact on trade volumes, transport costs, and overall economic competitiveness.

Ports of Call must be able to keep up with the increasing complexities of port management to sustain and create employment in developing countries with port communities such as Timor-Leste. The Government will strengthen internal coordination to promote the growth of the national Blue Economy, recognising that it encompasses a wide range of economic activities connected to the seas and oceans, thereby adding sustainability to the traditional maritime economy.

In this sector, the Government will focus on achieving two primary objectives: increasing the maritime sector's contribution to GDP and boosting maritime employment. Commitment to these objectives is an essential step in realising Timor-Leste's Blue Economy vision.

To this end, the Government aims to improve the national maritime transport industry through responsible and innovative practices that consider ocean protection, climate change mitigation and adaptation, while also promoting sustainable economic development.

A modern maritime transport system will enhance international trade by enabling the efficient movement of goods between countries, thereby opening opportunities to access new markets and drive the national economy — particularly considering Timor-Leste's recent accession to the World Trade Organisation in 2024 and the full ASEAN membership in October 2025.

Maritime transport development will also be a key pillar in the growth of the oil and gas sector along the southern coast. It must therefore be planned in an intersectoral manner, leveraging partnerships with technical experts that possess the necessary knowledge and technologies.

Investing in maritime transport is a more sustainable option for accelerating trade, as it offers greater energy efficiency — enabling longer distances and larger volumes of cargo to be transported than air freight, while consuming less fuel and reducing the carbon footprint.

Moreover, the development of maritime transport will also promote tourism and support the growth of coastal communities — stimulating job creation and market access for local products, both nationally and regionally — thus promoting other economic sectors not directly tied to the marine economy.

In association with the National Emissions Reduction and Energy Transition Plan, the Government may, in the future, adopt cleaner maritime transport technologies, including the use of alternative fuels such as natural gas, with the aim of preserving and protecting marine ecosystems.

The Government should also implement safety-at-sea and IMO certification measures, to align the country with key international conventions and safety protocols regarding navigation, environmental protection, and proper training of maritime professionals.

In this context, the Government will also regulate, in accordance with international law and best practices, the prevention of pollution caused by oil spills and marine waste.

Strategic Objectives:

- Promote international, regional and national trade, including within the framework of integration into the WTO and ASEAN.
- Develop science and technology in the search for more sustainable solutions for a more efficient, cleaner and less polluting maritime transport sector.
- Support the development of the petroleum sector on the south coast.
- Contribute to the development of sustainable tourism, including cruise tourism and adventure tourism in marine environments.
- Provide training and capacity-building for professionals in the field of maritime transport.

- Improve the management of the radiofrequency spectrum, which is crucial for navigation and communication systems used in the marine environment.

5.3.4.4 Shipbuilding and Ship Repair

«The Blue Economy represents a significant opportunity for job creation and growth, and shipbuilding and ship repair are fundamental pillars to ensure the sustainability and competitiveness of the maritime sector. »

José Manuel Durão Barroso

The shipbuilding and ship repair sector is rapidly growing and offers important economic growth opportunities for Timor-Leste.

This sector encompasses the design, construction, maintenance, and repair of vessels and maritime structures such as ships, oil platforms, fishing boats, yachts, and other watercraft, and is being considered in an integrated and cross-sectoral manner by the Government.

Strategic Objectives:

- Support the development of the maritime transport industry and international trade in the country.
- Support the development of the petroleum industry on the south coast
- Promote employment and technical skills within this sector.
- Develop science, technology and innovation to ensure the efficiency, safety and sustainability of vessels, including the use of alternative fuels, more efficient propulsion systems and emission reduction technologies.
- Explore shipbuilding and repair methods that minimise environmental impact, such as the use of recyclable materials and the implementation of production processes that reduce waste.
- Ensure appropriate legislation and regulation for the development of the sector, including environmental, safety and performance certification systems.
- Strengthen internal capacity for surveillance and enforcement within the national maritime space.
- Reduce international dependence and strengthen national sovereignty.

5.3.5 PILLAR 11: Maritime Security

«The vastness of the sea, its variable depths, the activities that take place within it, and the hidden dangers it holds are all factors that compel us to view the maritime domain as a subsystem of the national security system, requiring diverse and complex capabilities tailored to its specific characteristics. »

Donaciano Gomes

Maritime safety consists of an integrated set of measures and actions aimed at protecting the integrity and safety of maritime operations, transport and trade.

This concept encompasses not only the physical safeguarding of naval facilities and assets, such as ports and ships, but also the safety of shipping lanes, accident prevention and the mitigation of threats such as piracy, terrorism, drug trafficking, smuggling and other illegal activities.

Maritime security is essential to ensure the free movement of goods and people, promote the economic development of coastal countries, protect the marine environment and preserve order and legality in areas under national jurisdiction.

Given that Timor-Leste is exposed to a wide range of threats that go beyond illegal fishing and the degradation of marine biodiversity, such as transnational organised crime and the misuse of natural resources, it is urgent to define and implement a national maritime security plan to safeguard its ocean space.

It is also necessary to verify whether strategic instruments are already in place and, if so, to ensure that they are updated and operationalised, in line with the international commitments made by the Government.

Strategic Objectives:

- Analyse national risks: identify and characterise the main risks and threats to the maritime security of Timor-Leste, including piracy, terrorism, drug and human trafficking, illegal, unreported and unregulated (IUU) fishing, smuggling, marine pollution and other illicit or hazardous activities.
- Assess the likelihood of occurrence and potential impact: examine the probability and effects that each threat may have on security, the economy, the environment and national sovereignty, contributing to the prioritisation of response actions.
- Identify national vulnerabilities: assess structural and operational weaknesses in the national maritime security system, including gaps in port infrastructure, shortages of qualified human resources, insufficient equipment, limited implementation of international standards, and legal and institutional shortcomings.
- Define national priorities and objectives: establish clear, measurable and realistic targets for strengthening maritime security, such as reducing piracy incidents, increasing vessel inspections, ensuring effective protection of marine protected areas and improving inspection and control practices in ports.
- Develop preventive measures: implement actions to mitigate identified risks and prevent incidents, such as strengthening port security, building the capacity of enforcement officers, implementing maritime surveillance and tracking systems, establishing rapid response protocols and developing contingency plans.
- Strengthen international cooperation: promote coordination with neighbouring countries and regional and international organisations in information sharing, training, capacity-building and joint patrols. Encourage Timor-Leste's accession to relevant multilateral conventions and initiatives in the field of maritime security and environmental protection.
- Monitor and evaluate results: establish a system of continuous monitoring of implemented actions, with performance indicators and evaluation mechanisms to enable corrective measures, strategy updates and continuous improvement.

- Promote awareness and training: conduct public awareness campaigns on the importance of maritime security and promote regular technical and operational training programmes for maritime and port professionals, in alignment with international standards.
- Harmonise national legislation with international legal instruments: review and adapt national legislation to international maritime law, including UNCLOS, the International Ship and Port Facility Security (ISPS) Code, the International Convention for the Safety of Life at Sea (SOLAS), and the International Regulations for Preventing Collisions at Sea (COLREG), ensuring their integration into the national legal framework.

5.3.5.1 Capacity Building, Surveillance and Enforcement

«Our seas are in the corridor connecting the Indian Ocean to the Pacific, as well as the maritime routes of Ombai and Wetar. This requires the State to provide adequate naval capabilities to protect the sea and its resources.»

José Ramos-Horta

Timor-Leste's geostrategic position, located in the maritime corridor between the Indian and Pacific Oceans and crossed by the international routes of the Ombai and Wetar straits, imposes on the State an increased responsibility for the protection of its maritime space and resources.

In view of current international security challenges, including the increase in threats such as terrorism, human trafficking, transnational organised crime and incursions into maritime areas under national jurisdiction, the Government of Timor-Leste will adopt a more effective and comprehensive maritime security strategy based on the principles of sovereignty, prevention and cooperation.

The extension of the EEZ and the wealth of marine natural resources, including the energy resources of the Timor Sea, require the development of naval capabilities to exercise authority, prevent illegal activities and ensure environmental protection.

To this end, the Ministry of Defence will consolidate the legislative framework necessary for the establishment of the Timor-Leste Maritime Authority System and the National Maritime Authority, ensuring their full implementation as the highest structure for the direction, coordination and administration of entities operating in maritime areas under national sovereignty and jurisdiction.

The strengthening of maritime surveillance and enforcement capabilities will be geared towards an integrated approach to security, including:

- The defence of national sovereignty;
- Border control;
- The fight against illegal, unreported and unregulated fishing;
- Combating piracy, drug trafficking and other forms of transnational crime;
- Preventing pollution and environmental crimes;
- Maritime search and rescue;
- Protecting critical infrastructure, including oil and gas exploration facilities on the south coast.

To support this mission, an information, surveillance and reconnaissance system will be established, combining maritime, air and technological assets with the capacity to support continuous patrol and incident response operations. This system should be interoperable with national defence and security systems and compatible with international information-sharing platforms.

Maritime surveillance will thus be strengthened not only in the military domain, but also in support of non-military security, particularly in the promotion of the Blue Economy, environmental protection and sustainable management of marine resources.

The Government is committed to ensuring that these capabilities are included in the National Security and Defence System, to ensure an active, permanent and effective presence at sea – an essential condition for the development, security and sovereign affirmation of Timor-Leste.

Strategic objectives:

- Defend national sovereignty and marine resources: ensure effective control and protection of the Exclusive Economic Zone (EEZ), including the seabed and living and non-living resources, in accordance with the Law of the Sea.
- Engage the F-FDTL in economic development: promote the active contribution of the naval component of the F-FDTL to the protection of maritime economic activities, with particular focus on surveillance, enforcement and support for the development of the Blue Economy.
- Promote operational training and capacity-building: strengthen the training of military and civilian human resources involved in maritime operations, focusing on security, enforcement, rescue, surveillance and environmental protection.
- Consolidate the Maritime Authority System of Timor-Leste: strengthen the command, control and coordination structure of the National Maritime Authority, ensuring its operational readiness based on adequate legislation, qualified human resources and logistical means.
- Create and implement specific legislation: develop a legal framework enabling the establishment of infrastructure to support national defence and the development of the Blue Economy, aligned with international standards.
- Reinforce infrastructure and logistical capacities: improve existing naval facilities and develop new support bases along the coast, ensuring sustainability and territorial reach of naval operations.
- Modernise information and command systems: invest in the development of the C4ISR system (Command, Control, Communications, Computers, Cybersecurity, Intelligence and Surveillance) to ensure a coordinated and effective response to diverse maritime threats.
- Equip the naval component with appropriate assets: acquire vessels, equipment and technologies suited to defence, enforcement and surveillance missions, focusing on agile, cost-effective and operationally efficient platforms.
- Strengthen the National Maritime Authority: consolidate its institutional, technical and logistical capacity to ensure the full exercise of State authority in maritime areas under its jurisdiction.
- Train specialists in critical areas: invest in advanced training in fields such as naval engineering, maintenance, logistics operations, surveillance technologies and port management.

- Implement a National Maritime Alert System: establish an integrated structure for monitoring and responding to maritime emergencies, ensuring coordination between civilian and military entities.
- Reinforce search, rescue and enforcement capacity: strengthen the naval component's ability to respond to emergencies, rescues, maritime accidents and pollution incidents, supported by appropriate assets and specialised training.
- Ensure compliance with the Law of the Sea: guarantee alignment with UNCLOS, SOLAS, MARPOL and other relevant instruments.
- Promote the security of strategic installations: protect critical infrastructure associated with oil and gas exploitation, particularly on the south coast, ensuring safe and sustainable operations.
- Establish strategic international partnerships: enhance bilateral and multilateral cooperation in maritime security, fostering capacity-sharing, joint training and technical assistance.

5.3.5.2 Monitoring and International Cooperation

«Protecting maritime routes and safeguarding ocean security is crucial for ensuring global trade, preserving the marine environment, and promoting international stability and security.»

International Maritime Organization

Timor-Leste's geostrategic location, at the crossroads of international shipping routes linking the Indian and Pacific Oceans, gives it growing importance in the context of regional and global security. Its position attracts the direct interest of neighbouring countries such as Indonesia and Australia, both because of its territorial proximity and its importance for security and development in Southeast Asia and the South Pacific.

For Indonesia, Timor-Leste is strategically important in the process of democratic consolidation and shared security. For Australia, Timor-Leste is an important link in its 'chain of security', functioning as part of its perimeter of protection and stability.

In this context, systematic monitoring of the national maritime space and the strengthening of international cooperation are essential elements for ensuring the sovereignty, peace, security and sustainable development of the country.

The growing complexity of threats such as piracy, drug trafficking, environmental crime, irregular migration, illegal fishing and terrorism requires a cooperative and shared approach, using bilateral, regional and multilateral mechanisms.

The Government of Timor-Leste recognises that no country can guarantee maritime security on its own. It therefore intends to deepen its integration into international information, technical capacity-building and emergency response networks, with a focus on prevention, shared risk management and the protection of the ocean's common goods.

In this context, strategic partnerships should focus on:

- Strengthening monitoring and surveillance capabilities;
- Training technical and military personnel;
- Sharing intelligence and best practices;
- Operational cooperation in critical areas such as combating maritime crime, fisheries enforcement and responding to environmental disasters.

The monitoring of Timor-Leste's maritime space should be based on a robust technical structure that is interoperable with regional systems, allowing for continuous monitoring of shipping routes, identification of risky behaviour, and detection of illegal or dangerous operations.

Strategic Objectives:

- Promote and preserve regional and global peace and stability: develop bilateral and multilateral cooperation initiatives with neighbouring countries and international organisations, with the objective of strengthening cooperative security in the Indo-Pacific region and preventing conflicts or instability that may affect navigation, trade or the sustainable use of marine resources.
- Strengthen national capacities through external cooperation: promote strategic partnerships for institutional, technical and operational capacity-building in maritime security, search and rescue, surveillance and environmental protection, ensuring effective knowledge and technology transfer.
- Contribute to ocean protection and the development of the Blue Economy: establish cooperation networks to share best practices and experiences in the sustainable exploitation of marine resources, including fisheries, coastal tourism, marine biotechnology and ocean-based renewable energy.
- Integrate Timor-Leste into relevant international forums, consolidate active participation in organisations such as the International Maritime Organization (IMO), the International Hydrographic Organization (IHO), the ASEAN Regional Forum, the Pacific Islands Forum, and other regional and global platforms.
- Reinforce maritime security diplomacy: use maritime cooperation as an instrument of foreign policy, projecting Timor-Leste's image as a responsible partner committed to peace, international legality and sustainable development.

5.4 AXIS 4: Supporting the Implementation of the Blue Economy (CROSS-CUTTING MEASURES)

«The Government will strengthen internal coordination to promote the growth of the national Blue Economy, recognising that it encompasses a wide range of economic activities connected to the seas and oceans.»

Program of the Ninth Constitutional Government

5.4.1 PILLAR 12: Water and Basic Sanitation

The development of the Blue Economy largely depends on adequate basic sanitation that ensures coastal and inland waters are not contaminated by waste and polluted water, particularly from sewage systems.

The conservation of marine and aquatic ecosystems — and their species and biodiversity — relies on the proper treatment of wastewater and the efficient management of solid waste, so that they do not compromise the sustainability of vital ecosystems ranging from mangroves to transitional habitats and coral reefs.

In this sense, it can be said that there is no Blue Economy without adequate basic sanitation, including the treatment and protection of national water resources.

In summary, basic sanitation and the Blue Economy are interconnected. An efficient sanitation system is essential for the protection and sustainability of water resources, which in turn is fundamental for the economic development of communities that depend on them.

Strategic Objectives:

- Invest in an integrated manner in access to safe drinking water and basic sanitation throughout the country, also contributing to the reduction of single-use plastics and the promotion of recycling and reuse.
- Provide universal, safe and sustainable access to water supply, whether for the private consumption of all citizens or for agriculture, commerce, industry, tourism and the development of aquaculture.
- Ensure that all Timorese have access to improved basic sanitation across the country, through self-sufficient and high-quality sewerage systems, including the construction of treatment facilities and the provision of public sanitation facilities in the capital and municipalities.
- Implement the Dili Sanitation and Drainage Master Plan and expand water supply systems in all municipal capitals, with a view not only to ensuring access but also to building systemic resilience against flooding, by separating rainwater from wastewater to protect the capital's coastline.
- Ensure the technical training of professionals in the water and basic sanitation sector and strengthen the institutional capacity of the entities and bodies responsible for managing, implementing, monitoring and enforcing the sector.
- Establish alternative resilience mechanisms in response to climate change and prevent its impacts on water and sanitation infrastructure.

5.4.2 PILLAR 13: Management and Conservation of Wetlands and Transitional Zones

The Blue Economy is a holistic and interdependent approach that connects terrestrial and marine ecosystems. This means that, to promote truly sustainable and harmonious development across the country, it is necessary to coordinate activities in inland areas — including mountainous zones — as these influence the health of the ocean, and vice versa.

The Government recognises that an integrated perspective in the management and conservation of wetlands and transitional areas can lead to better environmental conservation practices, while also benefiting local communities.

In this regard, the Government will take into consideration:

- Watersheds and hydrological cycles: recognising that water flowing from mountains and rivers to the sea affects the health of marine ecosystems. Thus, sustainable management of water resources and the conservation of watersheds in mountainous and riverine areas are crucial to ensure the quality of water reaching the seas. Degradation of watersheds contributes to pollution and biodiversity loss.
- Economic and domestic activities: including agricultural, forestry and industrial practices in mountainous and riverbank areas, as well as pollution and poor solid waste management, particularly plastics, and erosion sediments that flow into rivers and groundwater.
- Protection and cleaning actions for wetlands and coastal/transitional areas, which depend on sustainable land-based practices to prevent waste from being transported into the sea during heavy rainfall.
- Climate change mitigation and adaptation.

This ecosystem-based approach adopted by the Government, in which ‘blue water’ (marine) depends on quality of ‘green water’ (terrestrial), leads to the need to protect 24 critical wetlands, notably Selo (Aileu) and Be’e Malae (Bobonaro), which act as vital biological filters before the water reaches the aquifers and the sea. This integrated management ensures the following ecosystem services:

- Provision: Supply of fresh water for human consumption, food security and sustainable aquaculture;
- Regulation: Stabilisation of the coastline, flood mitigation and thermal regulation;
- Support: Maintenance of critical habitats for protected species (dugongs, turtles and cetaceans) within the national maritime zone.

Sustainable development through the Blue Economy must include the promotion of sustainable practices across the entire water cycle from the source to the sea that is, from mountains and inland waters to the coastlines, transitional zones and the ocean.

Strategic Objectives:

- Include a study of the biodiversity of wetlands and transitional zones, and national water resources, in the Survey and Study of Marine Biodiversity in Timor-Leste, in order to map the ecosystems of different biodiversity areas in inland waters and wetlands, including georeferenced mapping of saltwater intrusion and urban pollution hotspots in direct correlation with the health of coastal coral reefs.
- Develop a policy for the management of river basins (including the management of basins shared with Indonesia, such as the Loes, Tono and Tafara rivers), wetlands and transitional zones.
- Develop Coastal Zone Management plans and mechanisms to preserve coastal ecosystems, protect against erosion, facilitate the recreational and sustainable use of the coast, and address issues such as urbanisation and pollution, in coordination with national maritime spatial planning and management.
- Map all vulnerable coastal areas to prevent the development or conversion of activities that are detrimental, including aquaculture, salt production or desalination, to the recovery of natural systems.

- Develop and implement the management, conservation and rehabilitation of aquatic ecosystems, wetlands and transition zones, including streams, lagoons, groundwater, swamps and coastal ecosystems such as mangroves.
- Monitor and sanction, in accordance with the legislation in force, sand extraction in various rivers and coastal areas, in particular the Comoro River, and create buffer zones along riverbanks and around dams, lagoons and coastlines, to support the conservation of water resources and control natural floodplains.
- Reduce sediment runoff, pollution from fertilisers and pesticides, and the negative impacts of altered water flows on streams, wetlands and coastal ecosystems.
- Raise awareness and educate communities on the need to protect and sustainably manage wetlands, which are essential to ensuring ecological and economic benefits.
- Engage local communities in decision-making and participation in projects, measures and actions, both inland for the management of aquatic resources and in coastal areas, promoting business and self-development opportunities, namely ecotourism and adventure tourism projects.
- Ensure sound management of land–sea interface zones, including the approval of water resources legislation.

5.4.3 PILLAR 14: Rural Development, Trade and Industry

The Blue Economy refers to an economic model that values the sustainable use of marine resources, promoting economic growth, social inclusion and the preservation of marine ecosystems.

This economic development strategy can be a powerful ally in rural development, especially in regions where marine resources are a fundamental part of local life and the economy. Activities such as sustainable fishing, aquaculture, marine tourism and marine resource exploitation can create jobs and generate income for rural communities, which make up most of the Timorese population.

From this dual perspective of sustainability and rural development, the Blue Economy offers alternatives to traditional agriculture, allowing communities to diversify their sources of income and reduce their dependence on a single activity.

On the other hand, the development of activities linked to the Blue Economy can encourage investment in infrastructure such as ports, roads and transport services, benefiting not only the exploitation of marine resources but also improving access to markets and services for rural communities.

Government plans for rural development and community housing are integral to the national Blue Economy as the National Suco Development Program and the Strategic Housing Plan involve building community capacity, economic diversification, climate resilience and developing culturally and ecologically appropriate housing.

The creation of cooperatives and industries and the promotion of trade are crucial in this context, especially from the point of view of private sector involvement and job creation, which are fundamental to economic diversification in areas such as fishing and marine cultivation, as well as other industries such as marine tourism and canning, renewable energy, marine biotechnology, among other opportunities that generate employment and business opportunities, promoting local economic development.

The Blue Economy industry drives research and development of new technologies for the sustainable exploitation and use of marine resources. This includes innovations in biotechnology, environmental monitoring technologies and sustainable production methods to enhance trade in marine products such as fish, algae, biofuels and pharmaceuticals, which can be marketed globally. International trade can bring significant revenue to coastal countries, as well as promoting the exchange of knowledge and best practices.

For this to be a successful strategy, there must be coordinated development strategies for coastal and port infrastructure to facilitate transport and logistics, without detracting from these initiatives promoting conservation and environmental protection.

In short, trade and industry are fundamental to the development of the Blue Economy, as they not only contribute to economic growth but also promote sustainability and the conservation of marine resources. The integration of sustainable practices into these activities is essential to ensure that the ocean remains a source of wealth and well-being for future generations.

The Government of Timor-Leste is committed to:

- Promoting sustainable marine Industries: developing policies and programs that encourage the growth of sustainable fisheries, aquaculture, renewable marine energy and ecotourism, ensuring that these activities are balanced with the capacity of marine ecosystems.
- Fostering Blue Innovation and Entrepreneurship: designing programs that support local innovators and entrepreneurs in developing solutions to climate and economic challenges in the marine sector, such as those related to coastal erosion, mangrove restoration and digital platforms for tourism.
- Strengthen trade and industrial cooperation in marine products: initiate policies that facilitate trade in marine resources and related products, including the exploration and establishment of shipping routes with neighbouring countries to expand the mobility of traders and services.
- Improve human capital for the Blue Economy: support vocational training and capacity building initiatives for personnel and young people in marine-related industries, including planning and reporting techniques, to improve the Government strategic plan and promote youth entrepreneurship.
- Integrate cultural heritage with economic development: develop initiatives that recognise and integrate the intrinsic link between Timorese culture and marine ecosystems, potentially through the promotion of traditional crafts such as Tais, which have cultural significance and economic potential.
- Market access and investment promotion: establish programs that provide market access and investment opportunities for Blue Economy enterprises, including the promotion of local products at national and international fairs and the attraction of foreign direct investment in Blue Economy sectors.

Strategic objectives:

- Empower rural and coastal communities through sustainable Blue Economy sectors, such as fisheries, aquaculture, ecotourism and biodiversity conservation.

- Strengthen community leadership, with particular emphasis on women and local community groups, through Local Action Groups for project governance.
- Improve housing and social infrastructure suited to diverse livelihood and well-being needs.
- Build capacity and promote knowledge exchange to advance sustainable economic activities linked to coastal and aquatic resources.
- Facilitate trade and strategic investment in the Blue Economy sector.
- Promote import and export activities within the framework of strategic Blue Economy investments.
- Promote national industries and local products.
- Strengthen regulatory frameworks that support trade, industry and national cooperatives.
- Promote the national private sector and economic growth.
- Develop adequate housing with access to water supply, sanitation and public hygiene improvements, as preconditions for healthy marine ecosystems and community well-being.
- Develop rural development mechanisms that include support for the management of inland and coastal aquifers, forest protection and the reduction of pollution affecting marine and freshwater resources.
- Give preference, including at local level, to companies and products committed to sustainability.
- Promote the export of sustainable and/or high-value recycled products and materials, reducing logistical and transport costs.

5.4.4 PILLAR 15: Ocean Satellite Account

The creation of the Ocean Satellite Account is essential for measuring the relevance of the Blue Economy within Timor-Leste's national economy and in terms of job creation, as well as for assessing the fulfilment of other quantifiable objectives established by the Government across various sectoral domains.

Essentially, the Ocean Satellite Account is a statistical tool for compiling and analysing data, based on the most appropriate accounting concepts and developed in line with international best accounting practices.

The Government will approve the Ocean Satellite Account, with the National Institute of Statistics of Timor-Leste tasked with preparing this important statistical instrument, in collaboration with the relevant sectoral bodies and services.

The Ocean Satellite Account will be published every three years, without prejudice to the annual compilation of data that allows for closer monitoring of statistical developments in the Blue Economy.

This strategy will make it possible to measure ocean-based economic activities for the purpose of innovation and strategic development. The Government considers it crucial to assess the gross output, added value, and employment generated by the Blue Economy in relation to the national economy, to understand its overall contribution.

Currently, Timor-Leste lacks the detailed data necessary to disaggregate specific indicators for Blue Economy activities and their contribution to national production. The Government aims to address this gradually.

The Ocean Satellite Account will enable the performance of ocean-related economic activities to be measured in accordance with the following strategic objectives.

Strategic Objectives:

- Approve the Ocean Satellite Account through a Government Resolution prior to the preparation of the next State General Budget, ensuring a pilot phase through the creation of budgetary markers.
- Measure the relevance of sea- and ocean-related activities for the country, enabling the estimation of the aggregate value of economic activities contributing to GDP.
- Support decision-making in the coordination of public policies related to the sea and the ocean.
- Contribute to improved strategic planning and to the sustainable management and development of maritime and coastal resources and activities.
- Assess the impact of maritime activities on the marine environment and biodiversity, enabling the sustainable use of marine resources.
- Monitor and evaluate the policies, measures and actions implemented, providing key data also to attract investment and create business opportunities.
- Correct and review the measures and actions implemented in a timely manner.

5.4.5 PILLAR 16: Planning, Financing and Monitoring Instruments

«Protecting the ocean is a sound investment. »
Christine Lagarde

Promoting the Blue Economy and preserving the ocean and its marine resources is widely recognised as a sound investment because it supports national economic growth, health, education, job creation, and, ultimately, long-term sustainable development.

Delaying sustainable investment in the Blue Economy is tantamount to delaying investment in future generations. This will inevitably result in significantly higher financial costs in the future.

The timeline for the planning, financing and monitorisation of the Policy and Action Plan for the Promotion of a Resilient and Sustainable Economy of the Sea in Timor-Leste is presented in Part III of this document, along with the respective action plan that outlines priorities and short, medium and long-term measures. This is also aligned with the convenience of required investments, for proper phased budgeting in accordance with the various national priorities, and to achieve a better balance in the face of budgetary constraints on public expenditure.

Accordingly, without prejudice to programs and projects to be implemented with Timor-Leste's Development Partners, private sector or NGO-led initiatives (national and international), it is essential to prioritise key Blue Economy areas during the current legislative term and identify corresponding financing sources.

The effectiveness and sustainability of the implementation of the Blue Economy Policy requires the adoption of a set of structural and operational measures to ensure institutional coordination, community ownership and technical capacity building for the various actors involved. The aim is to ensure that political ambition translates into real and lasting impact, underpinned by an effective and inclusive governance model.

A preliminary analysis of the current financing landscape for the Blue Economy in Timor-Leste identifies three main sources: national public resources, development partner assistance, and private sector investments, and evaluates how these flows are currently oriented (or could be redirected) towards the Blue Economy through bilateral, regional, and international negotiations.

As highlighted throughout this document, the first step is for the Government to communicate its priorities, not only to better align Development Partners, but also to increase investor understanding of market opportunities in Timor-Leste—thus reducing perceived investment risk and addressing any perception of insufficient public sector commitment or support.

On the demand side, gaps remain in knowledge, capacity, and awareness of business and investment opportunities linked to the Blue Economy. The Government, through its policy and action plan, aims to bridge this gap by defining its priorities to steer project pipelines toward “bankable” options and designing support measures or subsidies — such as tax incentives, reduced electricity tariffs, land lease reductions, and other tailored incentives — ensuring that the public sector acts as a real partner in financing future Blue Economy initiatives.

The Blue Economy is also intended to stimulate the development of the national private sector, which remains significantly underdeveloped. Moreover, the Government is confident that through the strategic objectives laid out for the Blue Economy, it can attract greater levels of foreign direct investment, with benefits for all stakeholders and direct positive impacts on the living conditions of Timorese citizens.

Other potential Blue Economy financing sources include:

- **Public-Private Partnerships:** through the strategic integration of public and private financing for development, attracting private capital seeking returns.
- **Donor and Philanthropic Funds:** these can help de-risk private investments by adjusting the risk-return profile, thereby encouraging private capital to participate. Donors also often provide technical assistance for project identification and preparation.
- **Blue Bonds:** debt instruments issued by governments, municipalities, development banks, corporations, and others to raise capital for marine and ocean-related projects that deliver environmental, economic, and climate benefits. For Timor-Leste to qualify for blue bonds, several criteria must be met, including the assurance of environmental and social benefits, revenue-generating capacity (to attract investors), a compelling investment narrative, a clear communication framework, and the ability to disburse funds efficiently.
- **Blue Carbon Credits:** for example, through the conservation of mangroves and seagrass meadows, which can generate sellable “blue carbon” credits to fund marine conservation projects.
- **Grants and International Aid:** when combined with innovative financial instruments like blue bonds, these can attract investments for sustainable projects in Small Island Developing

States. This approach ensures the long-term viability of marine resources while supporting economic development and environmental conservation.

- **Environmental Fees:** applied to Timor-Leste's Marine Protected Areas or as entrance fees for tourists seeking nature-based experiences, particularly in coastal areas and marine ecosystems. These environmental fees, especially those linked to tourism, can provide a sustainable revenue stream to support the management of protected marine areas and ecotourism activities.

Finally, monitoring and evaluating Blue Economy policies are key to making sure that sustainable development choices are effective, efficient, and relevant. This way, goals can be adjusted to boost the chances of success and public investment will be transparent and accountable, which is good for democracy and good national governance.

Strategic Objectives:

- Strengthen the Blue Economy Unit of LMBO with technical and financial means and specialised human resources, to ensure its capacity to coordinate the national Blue Economy strategy, guarantee collaboration and provide support to all implementing agencies, both public and private.
- Develop a concrete and integrated financing strategy for the implementation of the Blue Economy. This shall include a detailed analysis of total projected costs, a phased investment plan and clear mechanisms to attract and blend public and private financing.
- Integrate climate adaptation policies into Blue Economy policies across all sectors. This shall include coordination in the planning of port infrastructure, sites for aquaculture development and tourism projects to withstand sea level rise and intensified storms.
- Ensure the development of a locally based participatory process that guarantees the active involvement of coastal municipalities, sucos and fishing communities, with particular attention to the inclusion of women, young people and holders of traditional knowledge, in accordance with the principle of community ownership.
- Develop specific indicators sensitive to gender, youth and persons with disabilities for the implementation and monitoring of the economy, ensuring that these groups are not merely participants but beneficiaries and leaders of the process.
- Improve coordination with Development Partners, not only to enhance the planning and monitoring of policies and projects, but also to explore and operationalise financing mechanisms.
- Strengthen international cooperation (multilateral and bilateral) within the framework of the Blue Economy.
- Ensure financing for the blue transition through the development of a National Blue Economy Financing Roadmap, supported by public funds, public-private partnerships, donors and philanthropies, blue bonds, blue carbon credits, fees, licences and grants, among others.
- Develop fiscal analyses for the implementation of the Blue Economy, including revenue generation and fiscal risks associated with the development of the maritime and marine sector.
- Mobilise domestic revenue and ensure fiscal sustainability to support the promotion of the Blue Economy.

- Ensure appropriate monitoring and evaluation mechanisms to guarantee transparency and good governance of public policies.
- Ensure the necessary systematic political oversight to uphold effectiveness, legitimacy and normative coherence within a rule-of-law framework.



PART III

Preliminary Note to the Blue Economy Action Plan

I. Indicators

Indicators: These will be used in this plan to support the measurement and monitoring of implemented measures and actions, as well as the achievement of the defined strategic objectives.

They will serve to:

- Measure progress;
- Support decision-making (continue, adjust/correct, or cancel actions);
- Compare before and after (impact of the action plan);
- Provide an implementation roadmap.

During the monitoring and evaluation phase of the plan, indicators will, whenever possible, be disaggregated by gender (number of women and men), age group and geographic location of implementation and/or origin (municipality, administrative post or suco), as well as other relevant variables.

II. Results

Results: These will allow verification of the changes achieved following the implementation of measures and actions, as evidenced by the indicators.

They will serve to:

- Demonstrate whether objectives have been achieved;
- Verify the effectiveness of the action plan;
- Provide data for future improvements, corrections or strategic adjustments;
- Contribute to transparency, efficiency and accountability.

In this document, the term “*results*” is used broadly and may be interpreted as outputs (deliverables), outcomes or impacts.

III. Timeframe

Defined as short, medium and long term, as follows:

Short term: 1–3 years, aimed at rapid achievements and near-term outputs (deliverables).

Medium term: 3–7 years, aimed at introducing gradual reforms and investments leading to structural changes.

Long term: 8–10 years, or in some cases longer (20 or 30 years), aimed at reshaping the national development model.

IV. Governance Partners

The Government will rely on other domestic actors (other Sovereign Bodies, civil society, the private sector, etc.), as well as external actors, referred to as international partners, to implement the strategic objectives of the national Blue Economy.

In this document, governance partners should be understood as organisations that support the Government in planning, financing, implementing or monitoring a policy, programme or project, particularly in the areas of social, economic or environmental development.

These organisations may include:

- National or international civil society organisations (NGOs, foundations, institutes, etc.);
- Donor countries and cooperation agencies, as well as multilateral agencies, development banks, among others;
- Universities, research institutions, laboratories, etc.;
- National and international private companies, including public-private partnerships;
- Other national or local government bodies and other state agencies.

V. Targets and Means of Verification

Targets (quantified and time-bound objectives) and the means of verification of targets and indicators, which are essential to an Action Plan, will be defined and adjusted by the respective ministries in their annual plans.

VI. Abbreviations

PM - Prime Minister

- **LMBO** – *Land and Maritime Boundary Office*

VPM I – Vice Prime Minister and Coordinating Minister for Economic Affairs and Minister for Tourism and Environment

- **CNFPE** - *National Centre for Vocational Training and Employment of Timor-Leste*
- **CNFP- Becora** - *National Vocational Training Centre – Becora*
- **INDMO** - *National Institute for Workforce Development, I.P. (Public Institute)*
- **SERVE** - *Business Registration and Verification Service, I.P.*
- **CONFAC** - *National Commission for Trade Facilitation*
- **IADE** - *Institute for Business Development Support*
- **TradeInvest Timor-Leste, I.P** - *Investment and Export Promotion Agency of Timor-Leste, I.P.*

VPM II – Vice Prime Minister and Coordinating Minister for Social Affairs and Minister for Rural Development and Community Housing

PCM - Office of the Presidency of the Council of Ministers

- **INTL** - *National Press of Timor-Leste, I.P.*
- **RTTL** - *Radio and Television of Timor-Leste, E.P. (Public Enterprise)*
- **TATOLI** - *Timor-Leste News Agency, I.P.*
- **CFP** - *Civil Service Commission*

MoF - Ministry of Finance

- **INETL** – *National Statistics Institute of Timor-Leste, I.P.*

MFAC - Ministry of Foreign Affairs and Cooperation

- **ACTL** – *Timor-Leste Cooperation Agency*

MoJ - Ministry of Justice

MoSA - Ministry of State Administration

- **INAP** – *National Institute of Public Administration*
- **FEDA** – *Ataúro Development Fund*

MoH - Ministry of Health

MoE - Ministry of Education

- **NUC** – *National UNESCO Commission of Timor-Leste*
- **INFORDEPE** - *National Institute for the Training of Teachers and Education Professionals*

MHESC - Ministry of Higher Education, Science and Culture

- **UNTL** – *National University Timor Lorosa'e*
- **ISP** – *Polytechnic Higher Institute*
- **INCT** – *National Institute of Science and Technology*

MANLC - Ministry for the Affairs of National Liberation Combatants

MoPW - Ministry of Public Works

- **BTL** - *Bee Timor-Leste, E.P.*

MoTC - Ministry of Transport and Communications

- **APORTIL** – *Ports Administration of Timor-Leste*

- **TIC TIMOR** - *Information and Communication Technology Agency, I.P.*

MoTE – Ministry of Tourism and Environment

- **ATTL, I.P.** - *Tourism Authority of Timor-Leste, I.P.*
- **ANLA** – *National Environmental Licensing Authority, I.P.*
- **AND** - *National Designated Authority for Climate Change, I.P.*

MoCI - Ministry of Commerce and Industry

MRDCH – Ministry of Rural Development and Community Housing

MALFF - Ministry of Agriculture, Livestock, Fisheries and Forestry

MoD - Ministry of Defence

- **AMN** – *National Maritime Authority*

MPMR - Ministry of Petroleum and Mineral Resources

- **ANM** - *National Minerals Authority, E.P.*
- **ANP** - *National Petroleum Authority, E.P.*
- **IGTL** – *Timor-Leste Institute of Geoscience, I.P.*
- **TIMOR GAP** – *Timor Gas & Petroleum, E.P.*
- **Murak Rai** – *Timor-Leste Mining Company, S.A.*

MoI - Ministry of the Interior

MSSI - Ministry of Social Solidarity and Inclusion

MYSAC - Ministry of Youth, Sport, Arts and Culture

MPSI - Ministry of Planning and Strategic Investment

- **FDCH** – *Technical Secretariat of the Human Capital Development Fund*
- **ADN** - *National Development Agency, I.P.*
- **SGP** - *Major Projects Secretariat / Infrastructure Fund*

SEI - Secretary of State for Equality

SECOMS - Secretary of State for Social Communication

SEFOPE - Secretary of State for Vocational Training and Employment Policy

SEC – Secretary of State for Cooperatives

SETP – Secretary of State for Land and Property

SETOU – Secretary of State for Toponymy and Urban Organisation

SEDR – Secretary of State for Rural Development

SEESG-TV – Secretary of State for General Secondary Education and Technical-Vocational Secondary Education

SEEAS – Secretary of State for Electricity, Water and Sanitation

SEPC – Secretary of State for Civil Protection

SEAC - Secretary of State for Arts and Culture

6. BLUE ECONOMY ACTION PLAN

AXIS 1: RESEARCH, EDUCATION AND COMMUNICATION (KNOW THE SEA)

PILLAR 1: MARINE SCIENTIFIC RESEARCH

1.1 LEGAL FRAMEWORK FOR INTERNATIONAL MARINE SCIENTIFIC RESEARCH

STRATEGIC OBJECTIVES

- Contribute to the achievement of United Nations Sustainable Development Goal 14.
- Promote the development of new areas of action that enhance ocean knowledge in Timor-Leste and the training of Timorese scientific personnel, particularly young researchers, fostering cooperation and international exchange of knowledge on the ocean and, in particular, on the maritime space of Timor-Leste, which, given its scale and its natural resources and marine biodiversity, constitutes a unique natural laboratory of global significance.
- Promote ocean knowledge to combat the loss and degradation of biodiversity in marine ecosystems, particularly those resulting from the impacts of climate change, including ocean warming, deoxygenation and acidification, as well as pollution, including plastic pollution, and unsustainable use.
- Regulate the authorisation procedure for marine scientific research activities conducted by foreign States or international organisations within the national maritime space, considering international recommendations and best practices on marine scientific research, without prejudice to the sovereign rights and jurisdiction of Timor-Leste.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
1.1.1.	Draft and submit for approval the Legal Framework for Marine Scientific Research applicable to marine scientific research activities conducted within the national maritime space, when requested by foreign States or international organisations, with a view to promoting ocean knowledge in Timor-Leste.	- PM/LMBO	- Existence of approved legislation published in the <i>Journal of the Republic</i> on the “Legal Framework for International Marine Scientific Research”.	- Decree-Law No. 26/2025 of 13 August, “Legal Framework for International Marine Scientific Research”, approved by the Council of Ministers on 25 June 2025. - Legislation promulgated (17 August) and published in the <i>Journal of the Republic</i> on 13 August 2025. - More streamlined, transparent and accessible authorisation process for international partners.	COMPLETED IN 2025
1.1.2.	Define administrative procedures to facilitate the implementation of the Legal Framework for International Marine Scientific Research.	- PM/LMBO - MFAC	- Existence of administrative procedures supporting implementation of the new Legal Framework.	- Availability of a clear and simple roadmap to facilitate authorisations and implementation of marine scientific research in the country.	SHORT TERM

			- Number of complementary regulations or ministerial orders issued. - Platform/website with information and application forms available.	- Increased national scientific capacity and enhanced ocean knowledge in Timor-Leste.	
1.1.3.	Promote the training of Timorese scientific personnel, particularly young researchers, fostering cooperation and international exchange of knowledge on the ocean and on the national maritime space.	- MHESC/UNTL/INCT/ISP - MPSI/FDCH - Governance partners to be identified	- Number of formal scholarship programmes in marine-related fields (undergraduate, master's, doctoral) created or supported by the Government. - Number of scholarships awarded. - Number of research internships. - Number of national researchers in areas relevant to the Blue Economy. - Rate of increase of scientific personnel in the sector (%). - Number of agreements / MoUs / cooperation protocols with foreign universities and research centres in marine sciences. - Number of short courses, workshops or technical training sessions held annually in Timor-Leste. - Number of ocean-related conferences and seminars attended by Timorese participants, particularly youth.	- Establishment of stable mechanisms to support the training of Timorese scientific personnel. - Institutional basis for international exchange and co-supervision of students/researchers. - Integration of Timor-Leste into global ocean knowledge networks. - Recognition of national experts as a strategic resource for ocean governance.	MEDIUM TERM

1.2 SURVEY AND STUDY OF TIMOR-LESTE'S MARINE BIODIVERSITY

STRATEGIC OBJECTIVES

- Conduct the first comprehensive survey and study of Timor-Leste's marine biodiversity.
- Establish a system of international scientific and technological partnerships to carry out the first comprehensive survey and study of Timor-Leste's marine biodiversity.
- Build a framework for scientific and technological collaboration and exchange, working towards the adoption and implementation of sound ocean governance policies and measures within Timor-Leste's maritime space.
- Undertake studies to assess the feasibility of establishing a meteorology and geophysics laboratory, linked to institutional and human capacity-building needs, through partnerships and international cooperation.
- Encourage research projects within Timor-Leste's national maritime space and in the Coral Triangle, addressing global, regional and national challenges and threats.
- Support early-career researchers and promote the development of scientific knowledge in Timor-Leste, incorporating traditional and local knowledge into the process.
- Facilitate scientific and technological exchange through international cooperation and researcher mobility.
- Ensure the participation of youth, women and persons with disabilities in scientific research activities and in national and international exchanges.

- Conduct studies and research that improve the position of women within the Blue Economy and have a direct and inclusive impact on the future of the population.
- Create conditions for the Marine Biodiversity Survey and Study mechanism to be permanently updated, including a monitoring and evaluation system capable of effectively measuring the conservation status of marine biodiversity within the national maritime space.
- Invest in the Marine Biodiversity Survey and Study mechanism with the long-term objective of developing it into a Centre of Excellence in the Blue Economy, serving as a hub for innovation, training and advisory services for the sector.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
1.2.1.	Plan and establish, with relevant stakeholders, the mechanism for the first comprehensive Survey and Study of Timor-Leste's Marine Biodiversity.	<ul style="list-style-type: none"> - Blue Economy Working Group - Governance partners to be identified 	<ul style="list-style-type: none"> - Establishment of an interministerial Blue Economy Working Group to prepare the Marine Biodiversity Survey and Study mechanism, the Framework Law on National Maritime Spatial Planning and Management, and Marine Protected Areas. - Existence of a conceptual framework to plan and organise the Marine Biodiversity Survey and Study. - Number of national institutions involved (ministries, universities, NGOs, coastal communities, local authorities). - Number of international partners identified (universities, research centres, regional and international organisations). - Number of coordination meetings held. 	<ul style="list-style-type: none"> - Informal Working Group established in August 2025 (comprising LMBO, MALFF, MoTE, MoSA, MoTC, MoD, MPMR, MI, MOPW, MPSI). - Working Group expanded and formalised. - Conceptual framework defined for the Marine Biodiversity Survey and Study. - Relevant partner network mobilised and operational. - Technical conditions established, including allocation of responsibilities and timeline definition, to initiate the "first Survey and Study of Timor-Leste's Marine Biodiversity" in a structured manner. 	SHORT TERM
1.2.2.	Identify research gaps in existing reports and develop a database of specialised literature on Timor-Leste's biodiversity, ensuring its continuous updating.	<ul style="list-style-type: none"> - Blue Economy Working Group - Governance partners to be identified 	<ul style="list-style-type: none"> - Number of existing documents analysed and research gaps identified. - Existence of a database of specialised literature on studies and reports concerning Timor-Leste's marine biodiversity. - Number of existing studies and reports. - Regular updating of the database. 	<ul style="list-style-type: none"> - Effective use of information in research plans, scientific projects and policy documents, demonstrating that existing knowledge has been systematically organised, key gaps clearly mapped, and a continuous mechanism established for updating and sharing information. 	SHORT TERM

1.2.3	Plan the marine scientific research programme and timeline with short-, medium- and long-term objectives, including the selection of indicators to establish a reliable system for monitoring and reviewing marine biodiversity, enabling the assessment and reporting of accurate and reliable data on its status.	<ul style="list-style-type: none"> - Blue Economy Working Group - Governance partners to be identified 	<ul style="list-style-type: none"> - Document approved by the Council of Ministers setting out short-, medium- and long-term objectives, priorities, timeline and clearly defined responsibilities. - Number of national and international institutions involved. - Number of data collection initiatives planned or initiated under the programme. - Number of reports produced. 	<ul style="list-style-type: none"> - Clear strategic and time-bound framework to guide marine biodiversity research in the country, including a reliable monitoring and review system aligned with international best practice. - Maintenance of a structured mechanism for regular assessment and reporting of the status of marine biodiversity at national and international levels. 	SHORT TERM
1.2.4	Establish an international network of multidisciplinary scientific partners, at regional and international levels, based in Timor-Leste and led by a Timorese institution, to be designated, with competence in scientific research, forming the foundation of a national Blue Economy Centre of Excellence.	<ul style="list-style-type: none"> - Blue Economy Working Group - Timorese lead institution (to be identified and formally established) 	<ul style="list-style-type: none"> - Timorese institution designated as responsible for the Marine Biodiversity Survey and Study. - Organisational and operational structure of the institution developed and approved. - International partner network established and led by the designated institution. - Total number of partner institutions (regional and international), with identification of disciplinary diversity. 	<ul style="list-style-type: none"> - A sufficiently broad and multidisciplinary network established to support research, innovation and policy development related to the Blue Economy in Timor-Leste. 	SHORT TERM
1.2.5	Identify partners and collaborate in seeking funding opportunities to support the establishment and development of the Marine Biodiversity Survey and Study of Timor-Leste, as well as associated projects.	<ul style="list-style-type: none"> - Blue Economy Working Group - Timorese lead institution for the Marine Biodiversity Survey and Study (to be identified and formalised) 	<ul style="list-style-type: none"> - Number of programmes, funds and donors (national, regional and international) identified as potential financiers of the Marine Biodiversity Survey and Study and associated projects. - Number of formal contacts made with potential financiers and implementation partners. - Number of project proposals prepared, submitted and approved to support the Survey and associated projects. - Total amount of financial resources mobilised. 	<ul style="list-style-type: none"> - Report identifying available and suitable funding sources aligned with the needs of the Survey and complementary projects. - Active collaboration in resource mobilisation to support national marine biodiversity priorities. - Concrete financial resources secured to initiate or expand the biodiversity survey and associated projects, ensuring operational viability. - Reduced dependence on a single funding source and increased financial sustainability. 	SHORT TERM
1.2.6	Conduct feasibility studies for the establishment of a national meteorology and geophysics system.	<ul style="list-style-type: none"> - MoTE - MoTC 	<ul style="list-style-type: none"> - Existence of a technical, economic and institutional feasibility study for 	<ul style="list-style-type: none"> - Conceptual document outlining needs, scenarios, 	MEDIUM TERM

		<ul style="list-style-type: none"> - Governance partners to be identified 	<p>the national meteorology and geophysics system, approved by the competent ministry.</p> <ul style="list-style-type: none"> - Inventory of existing and/or required infrastructure and capacities (stations, equipment, data, human, institutional and legal resources). - Existence of a proposed governance model. - Estimated investment and operational costs (short, medium and long term) and identification of potential funding sources and cooperation partnerships (number of sources/partners mapped). - Existence of a roadmap outlining phases, priorities, indicative timeline and key milestones. 	<p>costs, benefits, and legal and organisational requirements.</p> <ul style="list-style-type: none"> - Clear understanding of the starting point and requirements to establish or strengthen the national system. - Concrete options for the organisation, operation and technical coverage of the national meteorology and geophysics system. - Report reviewed by the Council of Ministers on the financial feasibility and sustainability of the system. 	
1.2.7	Develop international cooperation and strategic partnerships and/or investment plans to strengthen institutional, technological and human resource capacity for the regular and reliable production of meteorological and geophysical data, to be provided to relevant institutions and, in due course, to the public.	<ul style="list-style-type: none"> - MoTE - MoTC - MFAC - Governance partners to be identified 	<ul style="list-style-type: none"> - Number of agreements, MoUs or cooperation/investment plans established with foreign meteorological and geophysical services, regional organisations and international agencies. - Number of equipment and systems installed (meteorological, seismic and tide gauge stations, data centres, forecasting and analysis software) with partner support. - Number of data-sharing protocols and access arrangements to global/regional observation networks. - Number of technicians and specialists trained (courses, internships, short- and long-term training) in meteorology, climatology, geophysics, data management and risk communication. - Number of international expert missions providing technical assistance to Timor-Leste. - Number of meteorological and/or geophysical bulletins issued regularly (daily, weekly, seasonal). 	<ul style="list-style-type: none"> - Strategic cooperation and investment framework supporting national institutional and technological development. - Improved capacity of relevant institutions to collect, process and archive meteorological and geophysical data in a continuous and reliable manner. - Enhanced national technical expertise to operate systems, interpret information and produce high-quality outputs. - Regular and reliable meteorological and geophysical information made available to relevant institutions and progressively to the public. - Sustainable observation and information system integrated into risk management and sectoral 	MEDIUM TERM

			<ul style="list-style-type: none"> - Existence of public dissemination channels. - Number of policies, plans or early warning systems using the data produced. 	<p>planning for the well-being of Timorese communities.</p>	
1.2.8	Promote innovation, training and advisory services in the Blue Economy sector through targeted support measures.	- Whole of Government	<ul style="list-style-type: none"> - Number and type of support instruments established (financing schemes, innovation incentives and public concessions, incubation/acceleration programmes, idea/project competitions). - Total annual amount allocated to these support measures. - Number of Blue Economy projects/companies supported per year (in areas such as sustainable fisheries and aquaculture, marine biotechnology, responsible coastal tourism, renewable energy, environmental services, etc.) - Number of new products, services or innovative processes developed with programme support. - Number of training actions, courses, workshops and capacity-building programmes conducted annually. - Number of participants in training activities. - Number of advisory services provided (business plans, feasibility studies, regulatory legal advice, environmental certification, etc.) - Number of jobs created or maintained in supported Blue Economy activities. - Volume of investment mobilised by supported projects (public + private). - Number of supported initiatives incorporating environmental best practices or sustainability certifications. 	<ul style="list-style-type: none"> - Establishment of concrete mechanisms to stimulate innovation, training and advisory services in Blue Economy activities. - Strengthened Blue Economy business ecosystem, with increased innovation and competitiveness in marine-related sectors. - Enhanced technical and managerial capacities of entrepreneurs, workers and institutions linked to the Blue Economy, in an inclusive manner. - Improved management quality and economic and environmental sustainability of supported projects and enterprises. - Sustainable growth of the national Blue Economy, generating social benefits (employment, income and inclusiveness) and environmental benefits (improved management of marine resources). 	MEDIUM/LONG TERM
1.2.9	Allocate resources to Research and Development (R&D) projects in identified priority areas, aimed at knowledge management and the application of		<ul style="list-style-type: none"> - Mapping of priority R&D areas for the Blue Economy. 	<ul style="list-style-type: none"> - Strategic framework guiding the allocation of R&D resources towards key national challenges. 	MEDIUM TERM

<p>innovative solutions to national challenges in the sector.</p>	<ul style="list-style-type: none"> - Annual allocation of public budget (and/or partner funding) for R&D projects in priority areas. - Number of projects funded per funding cycle. - Financial execution rate of projects (% of budget utilised); project completion rate (% of projects completed vs. initiated); number of R&D outputs generated (technical reports, prototypes, pilot projects, patents, publications). - Existence of knowledge management mechanisms (project database, results repository, summary reports); number of dissemination events held annually (workshops, seminars). - Number of R&D solutions (technologies, methods, management models) tested in real contexts; number of policies, plans or sectoral projects incorporating recommendations/results from funded R&D; number of partnerships with companies or public institutions for implementation of results. 	<ul style="list-style-type: none"> - Funding plan ensuring a critical mass of projects aligned with defined priorities. - Consistent production of knowledge and relevant technological solutions for the sector. <p>Active R&D initiatives in Timor-Leste contributing to the resolution of concrete Blue Economy challenges and improving sectoral performance, efficiency and sustainability.</p>	
<p>1.2.10 Strengthen Timor-Leste's participation in regional and international initiatives related to the Blue Economy, such as ASEAN, the Coral Triangle Initiative, the CPLP and other cooperation platforms, where common challenges and opportunities can be addressed.</p>	<ul style="list-style-type: none"> - Number of regional/international Blue Economy organisations and initiatives in which Timor-Leste actively participates (ASEAN, Coral Triangle Initiative, CPLP, etc.). - Number of meetings, working groups and events attended annually by Timorese delegations. - Number of technical/policy interventions delivered (positions, proposals, statements). - Number of regional documents, plans or resolutions incorporating Timorese contributions. - Number of concrete Blue Economy projects, programmes or initiatives in which Timor-Leste participates under these platforms. 	<ul style="list-style-type: none"> - Greater visibility and integration of Timor-Leste in key Blue Economy cooperation platforms. - More active role of the country in shaping common agendas and solutions to Blue Economy challenges (conservation, fisheries, pollution, climate change, investment, etc.). - Diplomatic participation translated into tangible national benefits in terms of projects, resources and know-how. - Enhanced domestic capacity to engage, negotiate and 	<p>SHORT TERM</p>

<ul style="list-style-type: none"> - Number of Timorese technical staff and decision-makers participating in training, exchanges and missions. - Number of national Blue Economy policies, plans or strategies that reference and align with commitments/objectives undertaken within regional and international initiatives. 	<ul style="list-style-type: none"> implement commitments undertaken within cooperation platforms. - Increased credibility and international profile of Timor-Leste in regional and global discussions on ocean and Blue Economy matters.
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PILLAR 2: EDUCATION, TRAINING AND STRATEGIC COMMUNICATION

2.1 EDUCATION AND VOCATIONAL TRAINING

STRATEGIC OBJECTIVES

- **Develop and implement the National Ocean Literacy Programme.**
- **Ensure that the national core curriculum for lower secondary (3rd cycle) and secondary education includes content promoting ocean literacy and climate resilience.**
- **For pre-school and primary education (1st and 2nd cycles), where curriculum revision is not feasible in the short or medium term, prepare teaching materials and complementary content to be distributed to schools and teachers, promoting ocean literacy and climate resilience.**
- **Develop school projects throughout the academic year, through an integrated approach combining teacher training and student learning, supported by complementary content.**
- **Develop higher education programmes and postgraduate courses in marine sciences and the Blue Economy.**
- **Promote the integration of education and research, strengthening national knowledge and capacity by investing in innovation in technologies and practices essential to the sustainable use and conservation of marine resources.**
- **Strengthen alignment with the United Nations Decade of Ocean Science for Sustainable Development (2021–2030), contributing to the achievement of SDG 14 and commitments undertaken at the United Nations Conferences of the Parties on Oceans, Climate and Biodiversity.**
- **Ensure skilled human resources and workforce capacity in industries related to the Blue Economy, through sustainable practices, including fisheries and aquaculture, maritime transport, tourism, renewable energy and waste management, particularly in coastal areas and wetlands, among others.**
- **Build the capacity of other Government partners in promoting the national Blue Economy, namely public administration officials, the private sector and civil society.**
- **Train a new national generation in professional fields to drive sustainable Blue Economy development over the next 5 to 10 years, focusing on areas of specialisation critical for the growth and sustainable management of marine resources.**
- **Strengthen the capacities of the National Vocational Training Centre – Becora, I.P., and CNFPE, and create training and professional internship opportunities in Timor-Leste and abroad.**
- **Promote the skills and qualifications of future leaders of Timor-Leste through the Blue Economy Young Ambassadors Programme, including national scientists, diving professionals, conservationists and a technically skilled workforce from the public and private sectors.**

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
2.1.1	Develop and implement the National Ocean Literacy Programme (NOLP).	<ul style="list-style-type: none"> - MoE - MHESC - PCM - SECOMS 	<ul style="list-style-type: none"> - Existence of an official NOLP document approved (objectives, content, target audience, timeline, budget, responsible institutions) and published in the Journal of the Republic. - Number of subjects/modules on ocean literacy introduced in primary, secondary and higher education. - Number of public schools implementing regular marine education activities throughout the academic year. - Number of ocean literacy workshops, campaigns and activities conducted annually (coastal clean-ups, fairs, seminars, educational materials), and number of direct participants (students, teachers, coastal communities, public). - Number of materials developed (audiovisual materials, books, digital platforms, educational games, etc.). - Existence of an online platform dedicated to the NOLP. - Percentage of students with basic knowledge of marine-related topics. - Geographical coverage rate (number of municipalities implementing programme activities). 	<ul style="list-style-type: none"> - National strategic framework to promote ocean literacy and knowledge of the sea. - Ocean literacy integrated into the national education system, from primary education to university level. - Increased public awareness of the importance of the ocean, marine biodiversity and the Blue Economy. - Accessible pedagogical resources adapted to the Timorese context to support marine education. - Effective programme in raising ocean literacy levels among the population, with monitoring and continuous adjustment mechanisms, contributing to the conservation and sustainable development of marine resources. 	SHORT TERM
2.1.2	Promote Blue literacy through the development and revision of lower secondary (3rd cycle) and secondary education curricula.	<ul style="list-style-type: none"> - MoE - Governance partners to be identified 	<ul style="list-style-type: none"> - Existence of revised lower secondary and secondary curricula incorporating objectives, content and competencies related to blue literacy. - Number of subjects or modules integrating ocean/Blue Economy themes. - Number of textbooks, teacher guides, worksheets and other teaching resources produced or adapted for blue literacy. 	<ul style="list-style-type: none"> - Blue literacy incorporated into the formal curriculum, ensuring systematic treatment of ocean-related topics. - Teachers and students equipped with practical and context-appropriate tools to address blue literacy content. - Strengthened teacher competencies in delivering education on ocean issues, marine sustainability and the Blue Economy. - Students regularly exposed to learning about the ocean and Timor-Leste's relationship with the sea. 	MEDIUM TERM

			<ul style="list-style-type: none"> - Number of lower secondary and secondary schools receiving and using these materials. - Coverage rate (%). - Number of lower secondary and secondary teachers trained in blue literacy and in the use of the revised curricula and materials. - Number of continuing professional development sessions conducted annually. - Number of schools implementing classroom activities and projects related to blue literacy. - Estimated number of students reached per academic year. 	<ul style="list-style-type: none"> - Measurable improvement in youth blue literacy, contributing to more informed and responsible ocean citizenship. 	
2.1.3	Develop complementary teaching materials for pre-school and primary education (1st and 2nd cycles).	<ul style="list-style-type: none"> - MoE - Governance partners to be identified 	<ul style="list-style-type: none"> - Number and types of materials produced (illustrated books, posters, games, activity sheets, simple videos, etc.) for pre-school and primary education (1st and 2nd cycles). - Existence of a minimum set of materials for each education level. - Number of specialists involved in the development/review of the materials (educators and teachers, scientists, linguists). - Official validation of the materials by the Ministry of Education. - Number of pre-school and primary schools receiving the materials. - Percentage of classes at each education level regularly using the materials in classroom activities. - Number of training sessions or presentation workshops conducted for educators and teachers. - Number of teachers participating in these sessions. - Number of school activities/projects carried out based on the materials (assignments, fairs, exhibitions, ocean-themed days). 	<ul style="list-style-type: none"> - Availability of age-appropriate pedagogical resources introducing basic concepts of ocean and blue literacy. - Materials aligned with the national curriculum, scientifically accurate and pedagogically suitable for each age group. - Effective integration of materials into educational practice, expanding ocean literacy among children. - Increased capacity of teachers and educators to use the materials in an engaging, interactive and context-based manner. - Greater curiosity, awareness and positive attitudes towards the ocean from an early age. 	MEDIUM TERM

2.1.4	Develop teaching materials for teachers and promote training of trainers on the “Blue curricula”.	<ul style="list-style-type: none"> - ME - Governance partners to be identified 	<ul style="list-style-type: none"> - Number and types of materials developed for teachers (teacher guides, activity booklets, presentations, digital resources). - Number of copies/downloads of materials made available. - Number of training-of-trainers sessions conducted. - Number of trainers equipped to replicate training for other teachers. 	<ul style="list-style-type: none"> - Structured set of resources supporting the implementation of the “Blue curricula” in classrooms. - Increased effective use of blue literacy content in teaching, based on dedicated teacher materials. - Creation of a critical mass of national trainers capable of disseminating the “Blue curricula”. - Established capacity to sustainably scale up teacher training in blue literacy nationwide. 	MEDIUM TERM
2.1.5	Promote the integration of content on the ocean and sustainable marine development into the curricula of Higher Education Institutions, particularly in the fields of natural sciences, engineering, economics, law and education.	<ul style="list-style-type: none"> - MHESC/INCT/UNTL/ISP - MPSI/FDCH - Governance partners to be identified 	<ul style="list-style-type: none"> - Existence of a reference document mapping national development needs. - Plan and timeline for the introduction of the new content, approved by the competent Ministry. - Number of Higher Education courses that begin to include curricular units or modules on the ocean and sustainable marine development. - Number of new curricular units/modules created or substantially revised to incorporate these contents. - Number of students enrolled per year in curricular units/modules containing ocean and marine sustainability content. - Number of lecturers involved in delivering these contents across the different scientific fields. - Number of courses/curricular units incorporating case studies, projects or internships related to the national maritime domain. 	<ul style="list-style-type: none"> - Updated curricula aligned with the Blue Economy and marine sustainability agenda. - Graduates trained across multiple fields with foundational competences in ocean matters and the sustainable management of marine resources. - Increased practical and theoretical exposure of university students to marine issues relevant to Timor-Leste. - Establishment of a critical mass of lecturers aware of and equipped to integrate the marine dimension into their disciplines. - Content more closely aligned with the Timorese context, fostering student engagement in challenges and solutions linked to the sea and the national Blue Economy. 	MEDIUM TERM
2.1.6	Establish higher education programmes (Bachelor’s, Master’s and Doctoral degrees) in strategic areas of the Blue Economy.	<ul style="list-style-type: none"> - MHESC/INCT/UNTL/ISP - MPSI/FDCH - Governance partners to be identified 	<ul style="list-style-type: none"> - Number of partnerships with peer universities to provide support in terms of specialised content and academic staff. - Number of new Bachelor’s, Master’s and Doctoral programmes approved in strategic areas of the Blue Economy. 	<ul style="list-style-type: none"> - Availability of advanced academic provision specifically oriented towards the Blue Economy. - Expansion of national capacity to train professionals at different levels (undergraduate postgraduate) for priority blue sectors. 	MEDIUM TERM

			<ul style="list-style-type: none"> - Number of Timorese Higher Education Institutions offering at least one of these programmes. - Number of places available and number of students enrolled annually at each level (Bachelor's, Master's and Doctoral). - Number of curricular units/course projects directly linked to challenges and opportunities within the Blue Economy in Timor-Leste. 	<ul style="list-style-type: none"> - Introduction of new programmes with relevance for young people and working professionals. - Training of a first generation of national specialists in key domains of the Blue Economy. - Higher education programmes aligned with the national context, generating knowledge and competences applicable to the sustainable management and economic development of Timor-Leste's maritime domain. 	
2.1.7	<p>Introduce research projects within Higher Education and establish partnerships with renowned international universities and research centres to promote knowledge exchange, course development and academic staff training.</p>	<ul style="list-style-type: none"> - MHESC/INCT/UNTL/ISP - MPSI/FDCH - Governance partners to be identified 	<ul style="list-style-type: none"> - Number of active research projects in Timorese Higher Education Institutions in areas related to the ocean and the Blue Economy. - Number of courses incorporating research components. - Number of students and academic staff involved in research projects per year. - Number of agreements/partnerships established with renowned international universities and research centres. - Number of joint projects (research, course development, thematic networks) implemented with such partners. - Number of mobility and exchange programmes (academic staff and students) carried out annually. - Number of Timorese academic staff participating in training programmes, thesis supervision or research placements within partner institutions. - Number of new curricular units or curriculum revisions developed with the support of international partners. - Number of academic outputs resulting from such cooperation 	<ul style="list-style-type: none"> - Strengthened research culture within Higher Education Institutions, with increased production of knowledge applied to national priorities. - Systematic integration of research into academic pathways, fostering scientific competences among students and academic staff. - Integration of national Higher Education Institutions into international networks of excellence, with access to new methodologies, infrastructures and funding. - Development of courses, modules and research initiatives aligned with international quality standards. - Enhancement of the pedagogical and scientific qualifications of the national academic staff. - Improvement in the overall quality of Higher Education in Timor-Leste, with more up-to-date provision aligned with global scientific advances and national needs. 	MEDIUM TERM

			(teaching materials, manuals, teaching guides, joint courses).		
2.1.8	Promote research centres and laboratories within Higher Education, in coordination with the mechanism established for the Survey and Study of Timor-Leste's Marine Biodiversity.	<ul style="list-style-type: none"> - Blue Economy Working Group - Timorese lead institution for the Survey and Study process (to be identified and formally established) - MHESC/INCT/UNTL/ISP - MPSI/FDCH - Governance partners to be identified <p style="color: blue; text-align: center;">(Articulate with Pillar 1: 1.1 and 1.2)</p>	<ul style="list-style-type: none"> - Mechanism established and approved by the Council of Ministers in coordination with the national Higher Education system. - Number of research centres and university laboratories formally established or strengthened in areas related to the ocean and marine biodiversity. - Existence of agreements/protocols for coordination between these centres and the national mechanism for the Survey and Study of Marine Biodiversity, with the support of international partners. - Number of research projects, theses and placements developed within the centres/laboratories directly contributing to the Survey and Study of Marine Biodiversity. - Number of publications, technical reports or databases produced through collaboration between universities and the national mechanism. - Number of academic staff, researchers and students involved in laboratory and field activities associated with the Survey and Study of Marine Biodiversity. 	<ul style="list-style-type: none"> - Higher Education research structures aligned with national priorities on marine biodiversity and integrated into the national survey mechanism. - Production of relevant scientific knowledge usable by the national mechanism, enhancing the quality and scope of the survey. - Strengthened practical and technical competences within Higher Education to provide sustained support for the study of Timor-Leste's marine biodiversity. 	MEDIUM TERM
2.1.9	Develop the Human Resources Development Plan for the Blue Economy of Timor-Leste	<ul style="list-style-type: none"> - VPM I - MHESC - MPSI/FDCH - PCM/CFP - SEFOPE - SEI 	<ul style="list-style-type: none"> - Existence of an approved Human Resources Development Plan for the Blue Economy. - Number of ministries, universities, technical institutions and private sector entities involved in its preparation (meetings, working groups, consultations). - Diagnostic report on human resources needs, by priority sector (food production, economic diversification, biodiversity, climate, energy, fisheries, tourism, etc.). 	<ul style="list-style-type: none"> - A defined medium- and long-term strategic framework to guide training and qualification of human resources in the Blue Economy, with institutional and social legitimacy. - Mapping of gaps and critical profiles required to address national Blue Economy challenges and to inform education, training and employment policies. - A roadmap to progressively develop the human resources base required for economic diversification, biodiversity protection, climate adaptation, energy security and other priorities 	SHORT TERM

			<ul style="list-style-type: none"> - Number of competency and qualification profiles defined for each priority sector. - Existence of quantified training/employment targets in priority sectors (short, medium and long term). - Existence of an action plan including measures, responsible entities, indicative funding sources and timeline. 	related to the sustainable use of fisheries and tourism resources.	
2.1.10	Conduct a needs assessment for the development of the Blue Economy and prepare a multiannual training plan, including a scholarship / mentorship programme in the Blue Economy.	<ul style="list-style-type: none"> - VPM I - MHESC - MPSI/FDCH - PCM/CFP - SEFOPE - SEI 	<ul style="list-style-type: none"> - Existence of an approved multiannual training plan, including objectives, target groups, types of courses/actions and timeline, in accordance with the needs assessment carried out. - Existence of a formal scholarship/mentorship programme in the Blue Economy (regulations, criteria, priority areas). 	<ul style="list-style-type: none"> - An organised structure to develop capacities over several years, aligned with the identified needs and corresponding budgeting. - Coordination between educational institutions, government and the private sector to respond to Blue Economy priorities. - Qualification of young people and professionals in strategic areas of the Blue Economy. 	MEDIUM TERM
2.1.11	Develop vocational training actions to build the capacity of relevant national entities responsible for the administration and management of the Blue Economy of Timor-Leste, including investment in vocational and technical training centres and the provision of short- and medium-term courses	<ul style="list-style-type: none"> - VPM I/ CNFPE/ CNFP- Becora/ INDMO - MPSI/FDCH 	<ul style="list-style-type: none"> - Number of vocational and technical training centres supported/restructured for Blue Economy areas. - Number of short- and medium-term courses created or adapted for fishers, aquaculture producers and other sector workers. - Number of technical staff from relevant public entities (fisheries administration, environment, tourism, etc.) trained in Blue Economy management. - Number of fishers, aquaculture producers and sector workers attending and completing courses per year. - Number of good practices introduced or improved because of the training (e.g. safety, reduction of bycatch, post-harvest improvement, hatchery management, tourism services, etc.). 	<ul style="list-style-type: none"> - Vocational training infrastructure aligned with the immediate needs of the Blue Economy. - Regular provision of courses aligned with good practices in fisheries, aquaculture, maritime safety and sustainable management, among others related to the Blue Economy. - Strengthened institutional capacity to plan, administer and regulate the Blue Economy. - Improved practical and management skills of economic actors directly involved. - Changes in the way activities are carried out, contributing to greater safety, productivity and environmental sustainability in the short to medium term. 	SHORT AND MEDIUM TERM

<p>2.1.12</p>	<p>Launch scholarship programmes for Timorese students to pursue priority fields in national and foreign universities (create special programmes to identify potential candidates or top students from all municipalities to develop human resources at territorial level).</p>	<ul style="list-style-type: none"> - VPM I - MHESC - MPSI/FDCH - MFAC 	<ul style="list-style-type: none"> - Existence of a formal scholarship programme in priority areas of the Blue Economy (regulations, criteria, eligible fields, component for talent identification across all municipalities). - Number of national and foreign partner universities admitting Timorese scholarship holders. - Number of scholarships awarded per year (national and international), disaggregated by municipality, gender and field of study. - Percentage of municipalities with at least one scholarship holder selected in each selection cycle. - Course completion rate of scholarship holders (% of graduates versus scholarships awarded). 	<ul style="list-style-type: none"> - A structured mechanism to financially support students in priority fields. - A network of host institutions capable of providing quality education, both within and outside Timor-Leste. - Increased Number of Timorese students trained in strategic areas of the Blue Economy, with gender inclusion. - Gradual development of qualified human resources distributed territorially, reducing inequalities between municipalities. - Specialised professionals able to join local administrations, central government services and the private sector across different municipalities, supporting the development of the Blue Economy nationwide. 	<p>SHORT, MEDIUM AND LONG TERM</p>
<p>2.1.13</p>	<p>Promote exchange programmes with international institutions to enable students and professionals from Timor-Leste to acquire practical experience and advanced knowledge.</p>	<ul style="list-style-type: none"> - VPM I - MHESC/UNTL/ISP/INCT - MPSI/FDCH - SEFOPE - MFAC 	<ul style="list-style-type: none"> - Existence of formal exchange agreements/partnerships with international institutions. - Number of exchange programmes established (students, professional internships, technical visits). - Number of students and professionals from Timor-Leste participating annually in exchange programmes. - Number of thematic areas/sectors of the Blue Economy covered by the exchanges. 	<ul style="list-style-type: none"> - An institutional framework enabling regular mobility of students and professionals to relevant international contexts. - Increased practical and academic exposure to good practices and advanced knowledge in the Blue Economy. - Diversification of acquired competences, covering different segments of the sector. - Transfer of international knowledge to the Timorese context. 	<p>SHORT, MEDIUM AND LONG TERM</p>
<p>2.1.14</p>	<p>Foster collaboration between the Government, academia and the private sector to identify labour market needs and develop internship and apprenticeship programmes.</p>	<ul style="list-style-type: none"> - VPM I - MPSI - MHESC - MoCI - MALFF - SEI - SEFOPE 	<ul style="list-style-type: none"> - Existence of a formal coordination group between the Government, Higher Education Institutes and the private sector for the Blue Economy. - Number of meetings/consultations held per year to identify labour market needs. - Number of priority professional profiles and competences jointly identified. - Number of internship/apprenticeship programmes created or formalised 	<ul style="list-style-type: none"> - Labour market needs of the Blue Economy mapped in an inclusive and participatory manner. - A common reference framework to guide training, internships and employment policies in the sector. - Structured provision of practical experiences aligned with the real needs of the Blue Economy market. - Greater involvement of companies and public services in work-based learning. - Improved employability and practical competences of young people and professionals. 	<p>SHORT, MEDIUM AND LONG TERM</p>

			<ul style="list-style-type: none"> between institutes/training centres and companies/public entities. - Number of private and public sector institutions hosting interns/apprentices. - Number of internship/apprenticeship placements offered per year. - Number of students/trainees completing internships/apprenticeships per year. - Percentage of participants integrated into employment in the Blue Economy following participation. 	<ul style="list-style-type: none"> - Stronger alignment between training provision, sector needs and employment opportunities in the Blue Economy. 	
2.1.15	Encourage companies operating in the Blue Economy to invest in the training and upskilling of their employees.	- Relevant ministries with competences in the Blue Economy	<ul style="list-style-type: none"> - Number of awareness-raising actions directed at the private sector on the Blue Economy and circular economy. - Number of support/incentive instruments created (tax benefits, co-financing of training, protocols with training centres). - Number of Blue Economy companies adhering to the incentive mechanisms. - Number of training actions carried out annually by companies for their employees. - Number of Blue Economy workers participating in training/upskilling actions per year. 	<ul style="list-style-type: none"> - An enabling environment for companies to invest in the upskilling of their employees. - Increased commitment of the private sector to continuous professional development. - Systematic strengthening of technical and managerial competences within the Blue Economy workforce. - Improved productivity, safety and adoption of good environmental practices within companies. 	SHORT, MEDIUM AND LONG TERM
2.1.16	In addition to building the capacity of typical sector professionals, also strengthen the capacity of professionals in public health, microbiology, infectious diseases and epidemiology to ensure specialised technical staff and epidemiological and sanitary surveillance of diseases related to contact with or proximity to marine resources.	- MoH - Governance partners to be identified	<ul style="list-style-type: none"> - Number of specific courses, modules or training programmes established in public health, microbiology, infectious diseases and epidemiology with a focus on marine-related diseases. - Number of institutions (universities, hospitals, health institutes) involved in the design and implementation of such training. - Number of health professionals trained (doctors, nurses, laboratory technicians, epidemiologists, 	<ul style="list-style-type: none"> - Existence of a structured training offer integrating the marine dimension into public health and biomedical sciences. - An education and health system aligned with the specific risks and needs associated with the marine environment. - Increased availability of technical staff capable of managing medical and pharmaceutical emergencies related to the marine context. - Strengthened national capacity for diagnosis and clinical and laboratory response to diseases of marine origin or associated with coastal environments. 	SHORT, MEDIUM AND LONG TERM

sanitary inspectors, etc.) in content related to diseases and risks associated with contact with marine resources.

- Number of protocols, manuals or standard operating procedures developed for surveillance and response to marine-related diseases.
- Number of active surveillance actions (sanitary inspections, microbiological monitoring campaigns of water and seafood products, outbreak investigations) carried out per year.

- A more robust epidemiological and sanitary surveillance system, better prepared to detect, monitor and control diseases associated with marine resources.

2.2 MARINE RESEARCH AND EDUCATION CENTRES

STRATEGIC OBJECTIVES

- Promote knowledge generation and prevent the collapse of marine biodiversity, pollution and degradation of the marine environment.
- Provide the necessary conditions to host “marine research laboratories” for the advancement of biodiversity studies.
- Promote and support the work of researchers, academics and students.
- Promote the sustainable development of local communities.
- Promote sustainable tourism and the multiplication of community spaces with a maritime vocation, including sports activities such as snorkelling and diving.
- Develop content under the National Ocean Literacy Programme with local involvement, adapted to the local context.
- Support the objectives of establishing marine protected areas and the development and monitoring of their respective management plans.
- Support the maritime sovereignty, sovereign rights and jurisdiction of Timor-Leste, including through coordinated actions by the Government and local communities for surveillance and security of maritime spaces.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
2.2.1	Establish the first Marine Research and Education Centre in Ataúro, including the definition of its specific location, concept and design, as well as its financing plan.	<ul style="list-style-type: none"> - PM/LMBO - MPSI/SGP - President of the Ataúro Authority <p>(Articulate with Pillar 1: 1.1 and 1.2 and Pillar 2: 2.2.1)</p>	<ul style="list-style-type: none"> - Specific location selected and formally approved. - Preliminary studies completed (environmental, technical, social). - Concept note for the Centre prepared and approved. - Architectural design completed, including sustainability criteria in the design. 	<ul style="list-style-type: none"> - Land identified, technically validated (access, risk, environmental impact) and approved by official decision. - Feasibility and impact report (environmental and social) finalised and incorporated into the Centre’s design. - Mission, objectives and functions (research, education, sustainable 	MEDIUM TERM

			<ul style="list-style-type: none"> - Management model defined (responsible body, statutes, coordination mechanisms). - Total estimated budget defined (construction, equipment, initial operation). - Funding sources secured (public, donors, cooperation partners). - Revenue mechanisms identified (visitor fees, training services, tourism partnerships). - Number of public consultations and community meetings held in Ataúro regarding the Centre. - Essential equipment planned, procured and installed (for laboratories, research activities, education and recreational activities). - Minimum team defined and recruited (management, technicians, educators, support staff, catering). - Number of research projects planned in articulation with the Biodiversity Survey and Ocean Literacy initiatives. 	<ul style="list-style-type: none"> tourism, environmental conservation and monitoring of marine protected areas) clearly defined. - Approved plans and layouts for laboratories, training rooms, exhibition areas and support and leisure spaces. - Provision for renewable energy use, waste management and sustainable materials included in the project. - Management / governance structure of the Centre formally established. - Detailed cost estimate approved by the Government. - Financing agreements and funding model, aligned with revenue sources, included in the Centre's sustainability plan. - Notes/reports of meetings arising from consultations with the Ataúro community. - Multiannual ocean education and literacy plan defined, with content adapted to the local context. - Centre ready to initiate pilot activities in marine research and education, in alignment with other Blue Economy Policy initiatives, namely the National Ocean Literacy Programme, the Marine Protected Areas of Ataúro and the National Marine Biodiversity Survey and Study. 	
2.2.2	Identify other areas of interest for the establishment of Marine Research and Education Centres, with priority given to national protected areas.	<ul style="list-style-type: none"> - PM/LMBO - MoTE - MALFF - MHESC - Municipal Authorities 	<ul style="list-style-type: none"> - Number of priority areas identified and mapped for future Marine Research and Education Centres. - Number of pre-feasibility studies completed in the selected areas. - Number of proposals for new Centres reviewed by the Government. 	<ul style="list-style-type: none"> - National list of defined areas of interest established. - Pre-feasibility reports and/or proposals produced and validated, serving as the basis for decisions on where to establish future Centres. 	MEDIUM TERM
2.2.3	Establish national and international partnerships, including international cooperation projects, for the planning and financing of Marine Research and Education Centres, with the involvement	<ul style="list-style-type: none"> - PM/LMBO, in coordination with relevant ministries and governance partners - MFAC 	<ul style="list-style-type: none"> - Number of formal partnerships established (protocols, MoUs, cooperation agreements) with national institutions (universities, NGOs, municipal authorities, 	<ul style="list-style-type: none"> - Consolidated partnership network established. - Cooperation models defined and operational. 	SHORT AND MEDIUM TERM

	of relevant government agencies, including the entities responsible for the National Ocean Literacy Programme and the National Marine Biodiversity Survey and Study of Timor-Leste.	(Articulate with Pillar 1: 1.2 and Pillar 2: 2.2.1)	private sector entities and communities, etc.) and international institutions (cooperation agencies, research centres, bilateral and multilateral partnerships, etc.). - Number of international cooperation projects approved and under implementation specifically dedicated to the development of Marine Research and Education Centres. - Percentage of funding allocated to the establishment and operationalisation of the Centres secured through partnerships and cooperation projects (national and international). - Number of joint actions carried out per year (technical meetings, workshops, missions, training sessions, etc.) between Government, national partners and international partners.	- Financial plans partially or fully secured and/or covered through national and/or international cooperation.	
2.2.4	Support UNTL in establishing an advanced faculty development programme with international universities, with emphasis on research applied to marine sustainability and climate change, in articulation with the Marine Research and Education Centres as advanced laboratories in close connection with the core research structure, contributing to the National Survey and Study of the Biodiversity of Timor-Leste and to the future Centre of Excellence in the Blue Economy.	- Blue Economy Working Group - Timorese lead institution for the Survey and Study process (to be identified and formally established) - MHESC/INCT/UNTL/ISP - MPSI/FDCH - MoTE /AND - Governance partners to be identified (Articulate with Pillar 1: 1.1 and 1.2 and Pillar 2: 2.1)	- Marine Research and Education Centres articulated and contributing to advanced training and research objectives in marine sciences.	- Marine Research and Education Centres offering advanced training programmes, including the creation or strengthening of master's and PhD programmes in marine sciences. - Postgraduate students integrated into inter-institutional research projects. - Functional network of Marine Research and Education Centres established, with research projects underway and increased scientific output and publications.	MEDIUM/LONG TERM

2.3 MARINE AND UNDERWATER CULTURAL HERITAGE

STRATEGIC OBJECTIVES

- Provide a space for the exhibition, education and public engagement of objects and artefacts related to the sea, safeguarding cultural heritage and reinforcing national maritime identity.

- Raise awareness of environmental issues and promote the conservation of the ocean, inland waters and other water resources.
- Promote and safeguard the history and traditions of Timorese communities.
- Promote the development of underwater archaeology and underwater cultural heritage in the country.
- Collect and preserve remains and movable or immovable assets, as well as their surrounding areas, which bear witness to human life and are located wholly or partially in a submerged environment, obtained through scientific archaeological research or chance discoveries, and which constitute evidence of civilisational or cultural value and are of significant cultural interest.
- Promote traditional ecological knowledge and community-based management as central elements for the conservation and dissemination of knowledge regarding underwater archaeological heritage.
- Invest in capacity building, including through regional collaboration, and through the development of specific legislation in this field.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
2.3.1	Consider the appropriate location of the future Museum of the Sea on the Dili waterfront and develop the concept note and respective procurement processes for the design and conception/adaptation of the space, ensuring accessibility and interaction for all visitors in the most inclusive manner possible.	- PM/LMBO - VPM I	- Concept note for the Museum of the Sea prepared and validated. - Waterfront location in Dili assessed and formally confirmed as appropriate. - Procurement processes for the design and conception/adaptation of the space launched and awarded.	- Concept document completed and approved by the Government, defining the vision, objectives, main content, target audience and accessibility and inclusion requirements for the Museum of the Sea. - Technical report (architecture and design, accessibility, mobility and safety) finalised, and official decision confirming the selected site for the installation/adaptation of the Museum of the Sea. - Tender procedures completed, with architecture and museography team(s) selected, including specific clauses on universal accessibility, multimedia interaction, sustainability and inclusion of all visitors.	SHORT/MEDIUM TERM
2.3.2	Research and document relevant themes with a view to producing content featuring creative narratives and language appropriate to different audiences.	- PM/LMBO - VPM I/ MoTE - MHESC - SEAC - MYSAC - Governance partners	- Number of relevant themes researched and documented for the Museum of the Sea (e.g. marine biodiversity, coral reefs, cetaceans, <i>Tara Bandu</i> , maritime history, fishing culture, traditions and oral	- Research report completed, identifying the main themes to be developed and documenting sources (scientific, cultural, local), serving as the basis for creative narratives. - Set of contents produced.	MEDIUM TERM

			<p>history of fishing communities, etc.).</p> <ul style="list-style-type: none"> - Number of narrative contents developed (exhibitions, multimedia, guides, educational materials) adapted to diverse audiences (children, young people, adults, tourists, local communities, etc.). - Number of workshops/validation sessions with target audiences conducted to gather feedback on narratives and language. 	<ul style="list-style-type: none"> - Consultation notes/validation report with feedback incorporated, ensuring that content is engaging, culturally relevant and accessible to all visitors (including children, older persons and persons with disabilities). 	
2.3.3	Collection, conservation and treatment of exhibition materials (including artefacts) with community involvement.	<ul style="list-style-type: none"> - PM/LMBO - VPM I/ MoTE - MHESC - SEAC - MYSAC - Municipal Authorities - Governance partners 	<ul style="list-style-type: none"> - Number of artefacts and exhibition materials identified, collected and registered (e.g. traditional fishing tools, maritime cultural objects, biological samples from coral reefs, cetaceans and mangroves, etc.). - Number of collection and treatment sessions carried out with community involvement (workshops, consultations and fieldwork with fishers, artisans, cultural groups and local leaders). - Number of artefacts collected under appropriate conservation conditions and ready for exhibition at the Museum of the Sea. - Percentage of fieldwork conducted in coastal areas in relation to the national total. 	<ul style="list-style-type: none"> - Comprehensive inventory of documented items (provenance, state of conservation, cultural/scientific value), including contributions from local communities in Ataúro and other coastal areas. - Community sessions carried out, with artefacts collected and treated using conservation practices adapted to local culture (e.g. Tara Bandu for heritage protection). - Materials treated and stored under professional conditions (conservation laboratory), ensuring long-term preservation for narratives on marine biodiversity, ecosystems and the maritime culture of Timor-Leste. 	MEDIUM TERM
2.3.4	Audiovisual collection from communities of documents, testimonies and oral history.	<ul style="list-style-type: none"> - PM/LMBO - VPM I/ MoTE - MHESC - MYSAC - SEAC - Municipal Authorities - Governance partners 	<ul style="list-style-type: none"> - Number of hours of audiovisual recordings (video, audio, photography) collected from coastal communities. - Number of testimonies and oral histories collected, transcribed and catalogued 	<ul style="list-style-type: none"> - Initial audiovisual archive established. - Collection of interviews, oral histories, dances and other traditional coastal activities documented for use in exhibitions and educational materials of the 	MEDIUM TERM

			(fishers, elders, women, young people, community leaders). - Number of communities actively involved in the audiovisual collection and validation process.	Museum of the Sea of Timor-Leste. - Active participation of Timorese communities, with informed consent and community validation of the collected content, ensuring cultural respect and faithful representation of local memories, narratives and traditions.	
2.3.5	Establish national and international partnerships for the design and development of the Museum of the Sea, including anthropologists, ethnographers and other specialists, as well as marine archaeologists and divers, and scientists and academics in marine-related fields.	- PM/LMBO - VPM I/ MoTE - MHESC - MYSAC - MFAC - SEAC - Municipal Authorities - Governance partners	- Number of formal partnerships established (protocols, MoUs, contracts) with relevant institutions and specialists (anthropologists, ethnographers, marine archaeologists, divers, marine scientists and academics, universities, museums and research centres). - Number of multidisciplinary technical teams established and actively working on the design and development of the Museum of the Sea. - Number of studies, field missions and joint workshops conducted with national and international partners to support the development of museum content and spatial design.	- Multidisciplinary cooperation network established to support research, exhibition design, material collection and scientific and cultural validation of the Museum of the Sea. - Set of specialised studies (anthropological, ethnographic, archaeological, scientific, etc.) produced to underpin the museological narrative, exhibition content and educational strategy of the Museum.	MEDIUM TERM
2.3.6	Accede to the Convention on the Protection of the Underwater Cultural Heritage.	- LMBO - VPM I/MoTE - MFAC - MYSAC - SEAC	- Internal and international procedures initiated for accession to the Convention. - Formal ratification of the UNESCO Convention on the Protection of the Underwater Cultural Heritage approved by the National Parliament of Timor-Leste. - National legislation (decree-law, regulation) adopted to implement the Convention, defining competent authorities	- Instrument of ratification published in the Jornal da República, confirming the official accession of the Democratic Republic of Timor-Leste to the 2001 Convention and ensuring legal protection of underwater cultural heritage. - National legal framework in force aligned with the Convention.	SHORT TERM

			and procedures for survey, excavation and protection. - Number of cooperation and training actions initiated with UNESCO and States Parties (e.g. training in underwater archaeology, information-sharing on discoveries).		
2.3.7	Develop and complement existing legislation in the field of underwater archaeological heritage	- LMBO - VPM I/MoTE - MFAC - MYSAC - SEAC	- Review and mapping of existing legislation on underwater archaeological heritage completed. - Number of new legal instruments or legislative amendments prepared and approved.	- Technical report prepared, identifying gaps, overlaps and update requirements in the current legislation relating to the underwater archaeological heritage of Timor-Leste. - Set of legal instruments in force clearly defining: the concept of underwater archaeological heritage, the competences of responsible entities, rules for survey, research and protection, applicable sanctions, and alignment with relevant international conventions.	SHORT TERM
2.3.8	Promote the training of divers for the identification of underwater cultural objects.	- MoTE	- Protocols established with diving schools in the country and abroad. - Number of diving courses/training programmes per year including a component on the identification of underwater cultural heritage. - Number of divers trained and certified in the basic identification of underwater cultural objects. - Number of field missions/practical exercises conducted for training in identification, photographic recording and reporting of underwater cultural objects.	- Training offer established and aligned with safety standards and principles of heritage protection. - Initial network of trained divers capable of recognising, recording and reporting potential underwater archaeological finds.	SHORT AND MEDIUM TERM
2.3.9	Provide basic training on diving equipment.	MoTE	- Number of protocols established with national diving schools.	- Consolidated training offer, including Open Water Diver courses (3–4 days, including	SHORT AND MEDIUM TERM

			<ul style="list-style-type: none"> - Number of basic diving equipment training courses offered per year in recognised centres (PADI, SDI, TDI) in Timor-Leste. - Number of Timorese participants trained and certified in the basic use of diving equipment. - Number of local diving centres with Timorese instructors qualified to provide basic training. 	<ul style="list-style-type: none"> dedicated pool sessions, classroom instruction and dives up to 18 metres), accessible to beginners without prior experience. - Locally certified divers (e.g. PADI Open Water) capable of safe handling, basic maintenance and use of equipment in research, tourism and coastal patrol contexts. - Network of centres with local teams established, promoting the inclusion of fishers, young people and guides in practical training on diving equipment. 	
2.3.10	Equip and build the capacity of personnel in the field of underwater cultural heritage.	<ul style="list-style-type: none"> - MoTE - MHESC - MYSAC - SEAC 	<ul style="list-style-type: none"> - Number of training and capacity-building programmes in underwater cultural heritage offered per year (underwater archaeology, conservation, management, monitoring). - Number of Timorese personnel (cultural officers, archaeologists, divers, MPA managers) trained and certified in underwater cultural heritage. - Percentage of governmental technical teams equipped with essential equipment for underwater work. 	<ul style="list-style-type: none"> - Courses/workshops delivered in line with international models (e.g. UNESCO), training Timorese technicians in the identification, documentation and in situ preservation of underwater heritage. - Network of professionals equipped with competences in underwater archaeology, conservation of underwater artefacts, 3D photogrammetry and geophysical methods, prepared to safeguard sites in Timorese waters. 	SHORT AND MEDIUM TERM
2.3.11	Engage local communities and promote traditional knowledge in the field of archaeological heritage.	<ul style="list-style-type: none"> - MoTE - MHESC - MYSAC - SEAC - Municipal Authorities - Governance partners 	<ul style="list-style-type: none"> - Number of local communities involved in processes of identification, documentation and safeguarding of archaeological heritage (terrestrial and underwater). - Number of initiatives integrating traditional knowledge into policies and practices for the protection of archaeological heritage (e.g. 	<ul style="list-style-type: none"> - Communities actively engaged in participatory mapping, community-based inventories and monitoring of archaeological sites, with representation of elders, local leaders and custodians of traditional knowledge. - Projects implemented that articulate scientific knowledge with local knowledge on human occupation in Ataúro and the east 	SHORT/MEDIUM TERM

			incorporation of <i>Tara Bandu</i> practices). - Number of training and awareness sessions conducted with communities on the importance of archaeological heritage and community intellectual/cultural property rights. - Percentage of archaeological projects in Timor-Leste with formalised community participation and shared benefits (access to findings, training opportunities, cultural tourism revenues).	coast, including rock art sites and culturally significant artefacts. - Workshops/meetings conducted with fishers, young people and coastal communities, ensuring prior informed consent, respect for local protocols and equitable benefit-sharing in the research and exhibition of heritage (e.g. Museum of the Sea).	
2.3.12	Develop skills and qualifications of local communities in the sector.	- MoTE - MHESC - MYSAC - SEAC - Municipal Authorities - Governance partners	- Number of training programmes in marine archaeological heritage offered per year to local communities (site identification, artefact recording, monitoring, basic conservation). - Number of divers and community technicians certified in specific competences related to marine archaeological heritage. - Number of community-based projects on mapping and safeguarding marine archaeological heritage implemented with local participation.	Local communities equipped with technical competences in the sector.	SHORT/MEDIUM TERM

2.4 STRATEGIC COMMUNICATION AND MARITIME CULTURE

STRATEGIC OBJECTIVES

- Strengthen national maritime identity and its respective culture and core values, including respect for nature and for people: sustainable and inclusive development.
- Promote the image of Timor-Leste nationally and internationally as a nation that promotes environmental preservation and conservation, including in the fight against climate change.

- Promote international and regional cooperation in matters related to the Blue Economy and the promotion and preservation of the ocean.
- Promote the fight against marine pollution, particularly plastic waste, and promote the improvement of plastic collection and management systems.
- Promote economic diversification by developing investment opportunities, notably in new economic sectors and industries, both to encourage Timorese citizens to participate actively in the development of these sectors and to attract foreign direct investment in Timor-Leste, in compliance with applicable national legislation and regulations, including coastal protection rules.
- Validate existing cultural knowledge and practices in the development of the Blue Economy in Timor-Leste, ensuring that development initiatives are rooted in the values and aspirations of the People of Timor-Leste.
- Promote broad public participation and foster good governance and transparency in public policies.
- Mobilise and inspire individuals and organisations to promote and protect nature.
- Develop and implement public awareness campaigns on Blue Economy policies, initiatives and objectives.
- Promote digital platforms for access to information and data monitoring on the Blue Economy: Digital Blue Economy Platform – TasiLink.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
2.4.1	Prepare a Strategic Communication Plan in coordination with the relevant entities to institutionalise the programmes and campaigns referred to (“O meu Mar, o Meu Timor”; “O Mar começa aqui! A Economia Azul, da Montanha ao Mar”; “Semana Nacional do Oceano”; “Jovens Embaixadores da Economia Azul”; and “Peixe Azul”).	<ul style="list-style-type: none"> - LMBO - PCM - SECOMS - Municipal Authorities 	<ul style="list-style-type: none"> - Existence of a formally approved communication plan. - Number of legal instruments, directives or protocols institutionalising the campaigns; - Number of meetings of the inter-institutional working group. - Number of communication products produced (radio/TV spots, posters, videos, brochures, digital content, etc.). - Number of municipalities/sucos where communication actions are implemented. - Number of participants per year in the different campaigns. - Number of trained and active Young Ambassadors (with recorded activities). - Reach and engagement on digital platforms (views, shares, comments, followers). - Number of schools implementing activities related to the campaigns. 	<ul style="list-style-type: none"> - Strategic Communication Plan on the ocean and the Blue Economy formally adopted. - Mechanism and plan defined, including the necessary interministerial coordination and participation of municipalities, NGOs, universities and the private sector. - The campaigns “O meu Mar, o Meu Timor”, “O Mar começa aqui! A Economia Azul, da Montanha ao Mar”, “Semana Nacional do Oceano”, “Jovens Embaixadores da Economia Azul” and “Peixe Azul” become regular initiatives, with a defined calendar and legal/administrative basis ensuring continuity beyond political cycles or specific projects. - Ocean literacy and Blue Economy awareness increase measurably, particularly among young people and coastal communities, resulting in greater participation in 	SHORT TERM

				conservation actions and good practices.	
2.4.2	Develop a new public awareness campaign “Tasi Timor Nia Futuro”, aimed at educating coastal communities, namely salt producers and fishers, on the benefits of the Blue Economy, to be developed by the Government department responsible for social communication.	SECOMS	<ul style="list-style-type: none"> - Existence of a specific communication plan for “Tasi Timor Nia Futuro”, formally approved. - Number of coastal municipalities and communities of salt producers and fishers covered by campaign actions (in-person sessions, community radio, local events). - Number of communication materials produced and disseminated (radio/TV spots, programmes, posters, leaflets, digital content) specifically on the Blue Economy and marine protection. 	<ul style="list-style-type: none"> - Increased knowledge of the Blue Economy and the advantages of developing sustainable coastal activities. - Greater uptake of sustainable practices related to the sea. - Recognition and ownership of the “Tasi Timor Nia Futuro” campaign by local communities. 	SHORT TERM
2.4.3	Develop educational programmes for community media in coastal areas such as Ataúro, Manatuto, Viqueque and Lautém.	SECOMS	<ul style="list-style-type: none"> - Number of journalists/community media facilitators from Ataúro, Manatuto, Viqueque and Lautém trained in ocean, Blue Economy and coastal protection topics. - Number of educational programmes (radio, print, online) produced and broadcast by community media on the ocean, Blue Economy and sustainable management of marine resources. - Number of community media outlets involved (radio stations, local newspapers, digital platforms) and estimated audience reached by the educational programmes. 	<ul style="list-style-type: none"> - Communities increase their knowledge of the ocean, Blue Economy and coastal protection following exposure to the educational programmes. - Community media outlets involved begin to regularly include content on the ocean, Blue Economy and coastal resilience in their editorial programming. - Trained community journalists participate in additional awareness initiatives or local campaigns related to the sea and the Blue Economy. 	MEDIUM TERM
2.4.4	Develop digital platforms for monitoring Blue Economy activities (fisheries, maritime tourism and energy, among others).	<ul style="list-style-type: none"> - LMBO - MoTC/ TIC TIMOR - MoTE - MALFF - MPMR - Other relevant ministries 	<ul style="list-style-type: none"> - Existence of a concept note, including planning of the platforms and collection of content/data, for the launch of the monitoring platforms. 	<ul style="list-style-type: none"> - Digital platforms operational in fisheries / tourism / energy. - General knowledge of the state of the Blue Economy in the country, based on reliable data 	SHORT/MEDIUM TERM

		<ul style="list-style-type: none"> - Municipal Authorities <p>(Articulate with 2.4.16)</p>	<ul style="list-style-type: none"> - Number of interministerial consultations and consultations with other relevant stakeholders conducted. - Digital platforms operational (or integrated into the Blue Economy Portal under development by LMBO). - Number and percentage of quantitative and qualitative data referenced and collected for monitoring purposes (e.g. vessels; sustainable fish stocks; coastal tourism flows; environmental impact in ports (water/air quality); marine renewable production; associated CO₂ emissions, etc.). 	<ul style="list-style-type: none"> validated by the respective sectors. - Working sessions held for dissemination and validation of the data. 	
2.4.5	Provide access to internet and communication networks in strategic coastal areas.	<ul style="list-style-type: none"> - MoTC/ TIC TIMOR - Municipal Authorities 	<ul style="list-style-type: none"> - Percentage of internet coverage (3G/4G/5G) in strategic coastal areas (e.g. Dili, Hera, Ataúro, fishing ports). - Average download speed (Mbps) in coastal areas where access is available. - Number of Wi-Fi/communication access points installed in priority coastal areas. - Percentage of the coastal population with internet access (local penetration vs. national). 	<ul style="list-style-type: none"> - 4G coverage in 95% of urban coastal areas (Díli), but less than 1% 5G; limited expansion in rural coastal areas. - Average mobile speed: 6.72 Mbps; fixed: 6.72 Mbps in areas with coverage. - National fibre optic project launched, prioritising coastal infrastructure; submarine cable operational. 	SHORT/MEDIUM TERM
2.4.6	Approve the “National Day of the Sea” through a Government Resolution, with the date to be decided by the Government, and promote annual campaigns to celebrate this day, integrated into the “National Ocean Week” campaign, including, among other activities, seminars and workshops in each municipality on topics related to ocean literacy.	<ul style="list-style-type: none"> - PM/LMBO - Relevant ministries - Municipal Authorities 	<ul style="list-style-type: none"> - Draft Resolution to commemorate the National Day of the Sea on 5 June prepared and approved by the Council of Ministers. Activities celebrating the National Day of the Sea included in the formal Communication Plan of campaigns related to the sea. - Number of municipalities/sucos with celebration activities for the National Day of the Sea. 	<ul style="list-style-type: none"> - Government Resolution No. 67/2025 of 24 October. - Establishes 5 June as the National Day of the Sea, approved on 22 October 2025 and published in the <i>Jornal da República</i>. - Celebrations of the National Day of the Sea become regular, with a defined calendar and legal/administrative basis ensuring continuity beyond political cycles or specific projects. - Ocean literacy and Blue Economy awareness increase measurably, 	SHORT TERM

			<ul style="list-style-type: none"> - Number of participants per year in the celebrations of the National Day of the Sea. - Number of workshops and seminars on ocean literacy conducted, indicating the municipalities/sucos and participants. 	<p>particularly among young people and coastal communities, resulting in greater participation in conservation actions and good practices.</p>	
2.4.7	Create and launch the Blue Economy Website of Timor-Leste: “Timor é TASI” and ensure its continuous updating.	- LMBO	<ul style="list-style-type: none"> - Number of contents prepared and made available for the launch. - Number of annual visits to the “Timor é TASI” website (unique users and page views; by country and type of user). - Number of contents published/updated per year (news, data, reports, maps, videos, educational materials, etc.). - Number of entities registered/active on the website (public institutions, academia, private sector, international partners). - Number of consultations/downloads of documents, databases and tools related to the Blue Economy. 	<ul style="list-style-type: none"> - “Timor é TASI” website built, launched and fully operational in at least two languages by the end of 2026. - Continuous updating ensured. - Consolidated national reach and international users with an annual growth trend. - Broad dissemination of the information made available and an active network of stakeholders contributing to the website. 	SHORT TERM
2.4.8	Promote and participate in national and international events related to Blue Economy themes and develop regional and international strategic partnerships.	- Whole of government and public institutions / agencies	<ul style="list-style-type: none"> - Number of national and international events on the Blue Economy and related themes in which Timor-Leste participates annually. - Number of events organised by Timor-Leste per year (conferences, workshops, fairs, technical missions). - Number of formal partnerships/cooperation agreements established or renewed (MoUs, agreements, programmes) with regional and international organisations. 	<ul style="list-style-type: none"> - Increased international visibility of Timor-Leste as a country committed to the Blue Economy. - Establishment of active regional and international strategic partnerships in areas such as science, technology, marine governance, training and investment. - Implementation of joint projects (research, capacity-building, financing, coastal/ocean management) arising from these partnerships. 	SHORT/MEDIUM TERM

			- Number of joint projects, programmes or initiatives launched as a direct result of these events and partnerships.	- Strengthened national capacities through participation in events.	
2.4.9	Extend the implementation of “Peixe Azul” for plastic collection to all municipalities of the country.	- MoTE - Municipal Authorities	- Number of new “Peixe Azul” units built and distributed across Administrative Posts. - Number of partnerships/contracts with companies for the collection and treatment of plastic waste. - Number of municipalities with the “Peixe Azul” campaign operational (with collection points and regular actions). - Number of plastic collection points installed and operational per municipality. - Number of tonnes of plastic waste collected per year through the campaign. - Number of awareness actions carried out per year (community sessions, school activities, coastal clean-up campaigns), including the number of participants.	- “Peixe Azul” campaign implemented in 100% of municipalities, with a minimum active plastic collection structure in place. - Progressive increase in plastic collection to 100% within four years. - Strengthened community involvement. - Visible reduction of plastic waste on beaches and in targeted coastal areas.	SHORT TERM
2.4.10	Promote the use of <i>Tara Bandu</i> , a traditional custom, for the preservation of terrestrial and marine ecosystems.	- PM / LMBO: to collaborate in defining a governmental entity responsible for monitoring and to co-organise a national seminar on <i>Tara Bandu</i> for the preservation of terrestrial and marine ecosystems with the responsible entity. - Entity responsible for monitoring <i>Tara Bandu</i> . - Local leaders and communities.	- Governmental entity responsible for monitoring <i>Tara Bandu</i> defined, with the commitment to present regular data and reports, particularly on the preservation of terrestrial and marine ecosystems. - Organisation of a Seminar on <i>Tara Bandu</i> for the preservation of terrestrial and marine ecosystems (also aimed at identifying gaps and encouraging local leaders). - Number of <i>Tara Bandu</i> ceremonies held per year for the preservation of terrestrial and marine ecosystems (forests, mangroves, reefs, turtles).	- <i>Tara Bandu</i> strengthened in multiple sucos to prohibit tree cutting/turtle capture/damage to coral reefs, and other environmental measures. - Demonstrated effectiveness in local conservation: improved mangroves, forests and reefs. - Terrestrial and marine ecosystems preserved through community leadership.	SHORT TERM

			<ul style="list-style-type: none"> - Number of municipalities/sucos with active <i>Tara Bandu</i> for environmental conservation. - Percentage of community compliance (absence of recorded violations per year) with environmental <i>Tara Bandu</i> rules. - Protected areas (ha/km²) under <i>Tara Bandu</i> for terrestrial/marine ecosystems. 		
2.4.11	Support the organisation of talent competitions and art and cultural events, in collaboration with relevant entities and with youth involvement.	<ul style="list-style-type: none"> - MYSAC - SEAC 	<ul style="list-style-type: none"> - Number of talent competitions and art and cultural events held per year with themes related to the ocean/Blue Economy. - Number of young participants. - Number of partner entities involved (schools, universities, community groups, NGOs, galleries, media outlets). - Number of works/cultural products produced and disseminated (songs, videos, paintings, theatre, dance, multimedia). 	<ul style="list-style-type: none"> - Increased youth engagement in promoting the Blue Economy. - Consolidation of a national network of ocean-related art and culture. - Greater public visibility of Blue Economy and ocean protection themes. - Strengthened maritime identity and ocean culture among young people. 	MEDIUM TERM
2.4.12	Support the Blue Economy Youth Ambassadors Programme, as key advocates for sustainable ocean governance, through regular workshops, capacity-building sessions and community engagement initiatives, as well as participation in international events related to climate and the ocean.	<ul style="list-style-type: none"> - PM/LMBO - VPM I/MoTE 	<ul style="list-style-type: none"> - Number of Blue Economy Youth Ambassadors selected/active. - Number of workshops, capacity-building sessions and community engagement initiatives held per year and number of participants. - Number of international climate and ocean events in which the Youth Ambassadors participate per year. - Number of projects/communities directly reached by the actions of the Youth Ambassadors (schools, sucos, fisher groups, youth organisations). 	<ul style="list-style-type: none"> - National network of Youth Ambassadors consolidated and financially supported by the Government (with municipal representation). - Increased capacities of young leaders in climate, ocean, leadership and communication topics. - Strengthened community engagement under the leadership and coordination of the Youth Ambassadors. - Strengthened international representation of Timor-Leste, with annual participation in relevant international forums/events. 	SHORT TERM
2.4.13	Launch “Blue Award” initiatives to recognise individual, group, organisational and private	<ul style="list-style-type: none"> - PM/LMBO 	<ul style="list-style-type: none"> - Existence of a concept note for the “Blue Award” validated by 	<ul style="list-style-type: none"> - Official launch of the “Blue Award” by the Prime Minister, 	SHORT TERM

	sector initiatives that promote sustainability and the protection of the sea.		<ul style="list-style-type: none"> - the Prime Minister (including rules, timeline and sponsorships). - First edition of the initiative launched and publicised. - Number of "Blue Award" editions launched per year by the Prime Minister. - Number of applications submitted per year (individuals, groups, organisations, private sector). - Number of awardees per year by category (e.g. sustainable innovation, marine protection, social impact). - Total value of prizes awarded per year and percentage of awarded projects successfully implemented within 12 months. 	<ul style="list-style-type: none"> - with national/international call for applications and media coverage. - At least 10 quality applications received in the first year, reflecting interest in marine sustainability. - Awardees publicly recognised. - Increased awareness and inspiration for campaigns and projects on ocean preservation. 	
2.4.14	Production and distribution of publications, newsletters, information sheets and merchandising materials.	<ul style="list-style-type: none"> - PM/LMBO - PCM - SECOMS 	<ul style="list-style-type: none"> - Number of publications, newsletters, information sheets and merchandising materials produced per year. - Number of copies distributed per year (physical and digital), by type of target audience (schools, coastal communities, decision-makers, private sector, young people). - Number of accesses/downloads of digital materials (newsletters, sheets, infographics, videos) on official platforms. - Materials produced in three languages (Tetum, English and Portuguese). 	<ul style="list-style-type: none"> - Regular provision of information. - Expanded reach through printed and digital materials. - Increased ocean and environmental literacy. - Strengthened "Timor é TASI" identity through the distribution of thematic merchandising. 	SHORT TERM
2.4.15	Implement the use of QR Codes in all publications related to the Blue Economy, to encourage and promote more sustainable practices and reduce environmental impact.	<ul style="list-style-type: none"> - Whole of Government and public agencies 	<ul style="list-style-type: none"> - Percentage of Blue Economy publications (reports, brochures, posters, information sheets, merchandising) that include a QR Code. - Number of QR Code scans per year (total and by type of publication/event). 	<ul style="list-style-type: none"> - Systematic integration of QR Codes, starting with Blue Economy publications and extended to other public documents over the next 10 years. - Measurable reduction in paper use and printing costs. 	SHORT TERM

			<ul style="list-style-type: none"> - Percentage of publications that have shifted from printed format to predominantly digital format, supported by QR Codes. - Estimated reduction in paper consumption (kg or number of pages not printed per year) due to the use of QR Codes. 	<ul style="list-style-type: none"> - Strengthened sustainable practices within the Public Administration, with the adoption of QR Codes as a standard. 	
2.4.16	<p>Invest in a digital platform “TasiLink”, associated with the Blue Economy Website, which, in the long term, will aggregate all components relevant to the Blue Economy, including the provision of data and information, training and capacity-building options, interactive biodiversity maps of the country and other activities in accordance with national maritime spatial planning, issuance of fishing licences and other maritime and coastal activities.</p>	<ul style="list-style-type: none"> - PM/LMBO - PCM - MoTC/TIC TIMOR - MoTE - MoF - MALFF - MoD - Relevant ministries and public agencies - Governance partners <p>- Establishment of a Working Group with relevant entities for the conceptualisation and operationalisation of the TasiLink platform.</p>	<ul style="list-style-type: none"> - Registration of the public domain: TasiLink.tl - Existence and application of a data governance and security policy for the TasiLink platform. - Existence of a governance model (who manages, who feeds, who uses) and list of priority data, modules and integrations agreed between ministries and partners. - Number of institutions signing an agreement / memorandum of collaboration for the use and data contribution to TasiLink. - Conceptualisation phase (0–6 months) for defining the functional and technical architecture of TasiLink. - Platform designed and validated. - Initial operationalisation phase (6–18 months). - Connection to the Blue Economy Website with: <ul style="list-style-type: none"> basic data and maps module; pilot fishing licences module; initial training module. - Platform tested through first communities and authorities using it in real context (for verification and correction). - Annual system availability (uptime) of TasiLink (Target: ≥ 50% uptime from the 3rd year of full operation). 	<ul style="list-style-type: none"> - Timor-Leste has a national Blue Economy digital platform – TasiLink – integrated into the Blue Economy Website, aggregating data, services and governance tools, licensing, training, biodiversity maps and support to public and private users, contributing to sustainable and transparent management of maritime space and coastal activities. - The TasiLink platform is technically robust, secure, scalable and interoperable, operating on cloud infrastructure, with microservices architecture, open APIs and clear data governance mechanisms. - TasiLink functions as a central hub of marine and coastal data, integrating biodiversity information, maritime spatial uses, climate, tourism, fisheries and community monitoring, with differentiated access for government, communities, academia and the private sector. - TasiLink progressively integrates the remaining digital platforms developed under previous measures and actions. - TasiLink provides structured training and capacity-building options on Blue Economy topics, digital tools, maritime safety, conservation and coastal 	MEDIUM TERM

	<ul style="list-style-type: none"> - Number of external systems integrated via API (Application Programming Interface) with TasiLink (e.g. sectoral databases, meteorology and alert systems, payment platforms, other government websites). (Target 2030: ≥ 10 integrations). - Percentage of priority modules effectively operational and accessible via the Website (data, maps, licences, training, marketplace, etc.) in relation to the defined plan. - Number and type of marine and coastal datasets integrated into TasiLink (biodiversity data, habitats (mangroves, reefs, seagrasses), fishing effort, licences, tourism, climate/oceanography, maritime spatial planning, etc.). - Number of data provider entities connected via API or structured upload (ministries, universities, NGOs, international partners). - Number of users accessing TasiLink data or reports per year. - Number of training courses/modules available on TasiLink. - Number of trained users reporting application of acquired knowledge in their activity (fisheries, tourism, community management, etc.) Examples: MPAs, fishing zones, migratory routes, critical habitats, tourism areas. - Number of formal planning processes (municipal plans, maritime spatial planning plans, tourism development plans, etc.) using TasiLink maps as reference. 	<p>entrepreneurship, in Tetum and other national languages.</p> <ul style="list-style-type: none"> - TasiLink provides interactive biodiversity and national maritime spatial planning maps, accessible to decision-makers, communities and investors, supporting marine spatial planning and conflict-of-use management. - TasiLink supports the digital issuance and management of fishing licences and other maritime and coastal activities, as well as booking of resources and services (vessels, landing points, equipment, diving areas), increasing transparency and administrative efficiency. - TasiLink functions as a platform for participation and community monitoring, enabling bidirectional communication between government and coastal communities, collection of environmental reports and support for shared decision-making.
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- Number of fishing licences issued/renewed through TasiLink (or integrated system)
- Number of types of maritime/coastal licences and authorisations managed through the platform.
- Average processing time of a fishing licence (with reference to before and after digitalisation via TasiLink).
- Number of bookings of resources and services managed via the TasiLink booking module (vessels, equipment, controlled-use areas, community tourism, visits to MPAs).
- Number of community reports submitted via TasiLink on environmental incidents, infractions or risks (e.g. illegal fishing, mangrove cutting, pollution, maritime accidents, spills at sea, etc.).
- Percentage of submitted reports receiving a recorded response (confirmation, inspection, administrative action) in the system.
- Number of users registered in TasiLink forums/spaces for debate and collaboration (communities, fishers, NGOs, researchers, etc.).
- Number of active customised dashboards (central government, municipalities, agencies, partners).

AXIS 2: PRESERVATION AND CONSERVATION OF MARINE BIODIVERSITY (RESPECT THE SEA)

PILLAR 3: MARINE AND COASTAL MANAGEMENT AND PROTECTION

STRATEGIC OBJECTIVES

- Conserve biodiversity by protecting marine species and their habitats, including coastal areas and complex, biodiversity-rich ecosystems such as coral reefs and mangroves.
- Ensure the sustainable use of marine resources, notably in the fisheries and tourism sectors, so as not to compromise the health and sustainability of these resources for future generations.
- Ensure present and future food security through the sustainable management of marine and coastal resources.
- Promote economic diversification through sea-based economic activities, such as fisheries and tourism, which depend on a healthy and resilient ocean and coastline.
- Develop a national plan for the efficient management of the National Protected Areas System, in an integrated manner with all other national policies and spatial planning instruments, and based on sound scientific information, with particular attention to marine protected areas.
- Contribute to the 2022 Kunming-Montreal Global Biodiversity Framework, in particular the target of protecting 30% of global terrestrial and marine areas by 2030 through protected areas and other effective conservation measures.
- Combat negative environmental impacts by reducing pollution and the destruction of marine and coastal species, habitats and ecosystems, thereby also contributing to climate change mitigation and adaptation.
- Create and implement mechanisms for maritime spatial planning and management of national maritime space, to consider its use in a holistic and integrated manner, balancing environmental preservation and conservation objectives with the economic development of communities and the country.
- Ensure proper articulation between the preparation of Maritime Spatial Planning and Management and other legislation, such as the Basic Law on Territorial Planning, for Integrated Coastal Zone Management (ICZM), including specific planning instruments such as Coastal Zone Management Plans (POOC).
- Involve coastal communities, including key stakeholders in economic activities such as fisheries, aquaculture, agriculture and tourism, among others, in decision-making on marine resource management, validating their knowledge and traditional practices.
- Support and promote the practice of *Tara Bandu*.
- Invest in sound science through research, studies and continuous monitoring, linking knowledge to planning and decision-making processes, and to the monitoring and evaluation of traditional practices and public policies, in accordance with Axis 1 and its respective pillars.
- Promote education, training and strategic communication to empower and raise awareness among the population regarding the importance of marine and coastal conservation, aligning active citizenship with planning and ensuring sustainable economic growth of communities, in accordance with Axis 1 and its respective pillars.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
3. 1	Prepare and approve the Legal Framework for the Planning and Management of the National Maritime Space.	<ul style="list-style-type: none"> - Blue Economy Working Group - Other relevant ministries, Municipal Authorities and public State agencies to be involved in the process 	<ul style="list-style-type: none"> - “Blue Economy Working Group” established for the preparation of the Legal Framework for Maritime Spatial Planning of the National Maritime Space, with the first working meeting held on 21 August 2025. 	<ul style="list-style-type: none"> - Blue Economy Working Group established and two meetings held in 2025, with exchange of correspondence for contributions. - Draft law submitted to the Council of Ministers for 	SHORT TERM

		<ul style="list-style-type: none"> - Draft law establishing the “Bases for the Planning and Management of the National Maritime Space” prepared following extensive interministerial consultation. - Development of complementary legal instrument(s) to address specific matters, namely the planning system and instruments, exclusive use, and the economic-financial regime, among others. - Explicit incorporation in the legal text of the mandatory use of digital tools and geospatial information (e.g. TasiLink/Blue Economy Website) in planning, monitoring and licensing processes. - Number of formal public consultation processes carried out during the preparation of complementary legislation, including participation of coastal communities and stakeholders. 	<ul style="list-style-type: none"> consideration on 14 November 2025. - Law approved and promulgated establishing the Bases for the Planning and Management of the National Maritime Space. - Complementary legislation approved and in force for the implementation of Maritime Spatial Planning and Management of the National Maritime Space. - Mandatory integration of geospatial information and digital data (e.g. TasiLink/Blue Economy Website) in planning and licensing processes - Formal mechanisms for public participation and consultation of coastal communities institutionalised within maritime planning processes. 	
<p>3. 2 Implement Maritime Spatial Planning and Management in coordination with Integrated Coastal Zone Management (ICZM) and Coastal Zone Management Plans (POOC).</p>	<ul style="list-style-type: none"> - MPSI - Blue Economy Working Group - Relevant ministries and public agencies - Municipal Authorities 	<ul style="list-style-type: none"> - Existence of an integrated set of planning instruments (maritime, ICZM and POOC) formally articulated. - Number/percentage of planning units (coastal stretches/maritime areas) with integrated land–sea plans (Maritime Spatial Planning + ICZM + POOC) completed and approved. - Number of formal annual meetings of the interinstitutional coordination mechanism (with minutes) between entities responsible for maritime space, ICZM and POOC. - Number/percentage of integrated geospatial areas (maritime + coastal) published on the official digital platform (e.g. 	<ul style="list-style-type: none"> - Maritime spatial planning framework prepared in coherence with ICZM and POOC - Maritime, coastal and shoreline planning instruments articulated with common criteria for sustainable use and ecosystem protection. - Priority maritime and coastal zones identified and delimited in integrated plans. - Coordination ensured in the definition of fishing areas, conservation zones, tourism areas, infrastructure, climate risk areas, etc., on land and at sea. 	<p>SHORT/MEDIUM TERM</p>

			TasiLink/Blue Economy Website) and used in decision-making processes (for example: MPAs, fishing zones, critical habitats, erosion/flood risk areas, coastal urban areas, port infrastructure).	<ul style="list-style-type: none"> - Operational interinstitutional coordination mechanisms established between entities responsible for maritime space, coastal zones and shoreline management. - Technical / regulatory structures in place to avoid overlapping competences and contradictory decisions. - Common maritime and coastal geospatial maps and databases produced and made available on digital platforms (e.g. TasiLink/Blue Economy Website). - Use of a single cartographic reference system for planning and licensing decisions. 	
3.3	Prepare and approve the Legal Framework for Marine Protected Areas.	<ul style="list-style-type: none"> - Blue Economy Working Group - Other relevant ministries, Municipal Authorities and public State agencies to be involved in the process 	<ul style="list-style-type: none"> - “Blue Economy Working Group” established for the preparation of the Legal Framework for Marine Protected Areas, with the first working meeting held on 21 August 2025. - Status of the drafting and approval of the Legal Framework for MPAs. - Number of MPAs reviewed and/or officially declared following approval of the legal framework. - Number of management plans for MPAs prepared and officially approved following approval of the legal framework. - Percentage of implementation of the management plans. 	<ul style="list-style-type: none"> - Legal framework for Marine Protected Areas prepared and approved. - Clear criteria and procedures for the declaration and management of MPAs established (rules for delimitation, management plans, community participation, monitoring and sanctions for infringements). - Integration of MPAs into national maritime spatial planning instruments. - Financing and international cooperation mechanisms for MPAs defined. 	SHORT TERM
3.4	Establish Transboundary Protected Areas, in regional cooperation.	<ul style="list-style-type: none"> - Blue Economy Working Group - MFAC - Other relevant ministries, Municipal Authorities and public State agencies to be involved in the process - Governance partners - Neighbouring states 	<ul style="list-style-type: none"> - “Blue Economy Working Group” established, with the first working meeting held on 21 August 2025. - Existence of a bilateral diplomatic mechanism for the definition and establishment of Transboundary Protected Areas. 	<ul style="list-style-type: none"> - Transboundary Protected Areas identified and agreed with neighbouring States (relevant ecological zones such as migratory routes, reefs, mangroves and breeding areas) jointly 	MEDIUM TERM

			<ul style="list-style-type: none"> - Number of proposals for Transboundary Protected Areas identified in joint technical-scientific studies. - Number of formal regional cooperation instruments signed explicitly including the establishment and management of the Areas (MoUs, cooperation agreements, minutes of joint commissions, etc.). - Number of joint management plans prepared (including harmonised measures for enforcement, conservation and sustainable use). - Plans approved or officially endorsed by the parties involved. - Percentage of Areas integrated into information and planning platforms (e.g. joint GIS layers, TasiLink and regional marine data systems), with boundaries, basic regulations and ecological status indicators represented in shared information systems. 	<ul style="list-style-type: none"> defined, with preliminary joint delimitation. - Formal regional cooperation mechanisms for the management of the Protected Areas established (agreements, protocols or memoranda signed with neighbouring countries, including coordination structures, information-sharing and implementation of management measures). - Joint management and monitoring plans prepared (instruments to ensure conservation, rules of use, enforcement mechanisms, community participation and procedures for responding to common threats). - Integration of Transboundary Protected Areas into national and regional marine/coastal planning and spatial management instruments. 	
3.5	Promote community involvement in marine and coastal management and protection through capacity-building, training and awareness actions.	<ul style="list-style-type: none"> - MoTE - MALFF - Municipal Authorities - Governance partners 	<ul style="list-style-type: none"> - Number of citizens from coastal communities trained in marine/coastal management and protection (disaggregated by gender and age group). - Type of training delivered, for example: good fishing practices; mangrove/reef conservation; maritime safety; ocean literacy; use of digital tools; planning, monitoring and reporting. - Percentage of coastal communities with active participation structures in marine/coastal management, for example: community fisheries management committees, coastal surveillance groups, local councils 	<ul style="list-style-type: none"> - Coastal communities with increased awareness and knowledge of marine conservation and coastal risks (communities better understand the importance of ecosystems such as reefs, mangroves, seagrasses, among others, and the impact of human activities on these ecosystems). - Strengthened local capacity for active participation in marine and coastal management, including community leaders, fishers, women and young people with practical competences 	SHORT/MEDIUM TERM

			<p>for marine protected areas, mangrove/reef monitoring groups, etc.</p> <ul style="list-style-type: none"> - Number of awareness actions carried out annually on marine and coastal topics, including specific actions targeted at women, young people and traditional leaders. - Number of community proposals and contributions recorded and under implementation. 	<p>to participate in management committees, community monitoring and decision-making processes.</p> <ul style="list-style-type: none"> - Co-management and community monitoring mechanisms established or strengthened. - Groups, committees or local associations formally involved in rules of use, surveillance, data collection and reporting of infringements / incidents. - Regular use of communication tools and platforms (including digital ones) for awareness-raising and reporting. 	
3.6	<p>Provide concrete support to encourage <i>Tara Bandu</i> practices and other community practices that promote and sustainably use ecosystem services.</p>	<ul style="list-style-type: none"> - Municipal Authorities - Governance partners <p>(Articulate with Pillar 2: 2.4.10)</p>	<ul style="list-style-type: none"> - Number of communities with active <i>Tara Bandu</i> related to the management of marine and coastal natural resources receiving concrete support (technical, financial or material) from the State or development partners. - Number of <i>Tara Bandu</i> instruments formally documented and monitored (creation of baselines/references). - Percentage of supported communities reporting perceived improvement in resource conservation (water, soils, forests, marine/coastal areas) following the implementation or strengthening of <i>Tara Bandu</i>. - Number of cases in which <i>Tara Bandu</i> rules are explicitly referred to or used in environmental or territorial management decisions by local or sectoral authorities. 	<ul style="list-style-type: none"> - <i>Tara Bandu</i> practices related to natural resources revitalised and formally recognised within communities. - Concrete support (technical and/or financial) provided to communities implementing <i>Tara Bandu</i> and other community conservation practices. - Improved community management of critical ecosystem services (water, soils, mangroves, reefs, forests) through <i>Tara Bandu</i> rules. - Strengthened recognition and integration of <i>Tara Bandu</i> rules in local and sectoral environmental management instruments and practices. 	SHORT/MEDIUM TERM
3.7	<p>Review the National Biodiversity Strategy and Action Plan (2011–2020), updating the guiding framework for the conservation of biodiversity,</p>	<ul style="list-style-type: none"> - MoTE - MALFF - MFAC 	<ul style="list-style-type: none"> - Status of the review and approval of the updated National 	<ul style="list-style-type: none"> - National Biodiversity Strategy and Action Plan reviewed and approved 	SHORT TERM

<p>based on science and updated reports, and aligning it with the targets of the Kunming-Montreal Global Biodiversity Framework.</p>	<p>- Governance partners, namely UN agencies</p>	<p>Biodiversity Strategy and Action Plan. - Degree of explicit alignment of the National Biodiversity Strategy and Action Plan with the Kunming-Montreal Global Biodiversity Framework. - Existence of an updated national biodiversity inventory incorporated into the National Biodiversity Strategy and Action Plan.</p>	<p>(updated strategic document (2026–2030), aligned with the Kunming-Montreal Global Biodiversity Framework. - National biodiversity targets defined and articulated with the 23 global targets of Kunming-Montreal (explicit national contribution to the four global goals and 23 targets of the Global Biodiversity Framework). - Updated scientific factual basis incorporated into the revised Strategy and Action Plan (national biodiversity assessments based on inventories, recent monitoring and sectoral reports (terrestrial and marine)). - Integration of biodiversity conservation into national planning instruments for maritime/coastal spatial planning.</p>
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3.1 MARITIME SPATIAL PLANNING AND MANAGEMENT

- STRATEGIC OBJECTIVES**
- Promote the implementation of the Blue Economy in Timor-Leste through the planning and management of the national maritime space.
 - Ensure that national maritime spatial planning and management is carried out through a participatory process, both at the planning stage and during implementation and resource management.
 - Plan the protection and use of “inland areas” in an integrated manner with water resources management, considering impacts on coastal areas, as well as the specific needs of the coastline and marine ecosystems.
 - Improve the use of the national maritime space and help prevent conflicts between coastal uses and activities, ensuring more appropriate land–sea interaction.
 - Ensure proper articulation between the preparation of Maritime Spatial Planning and Management and other legislation, such as the Basic Law on Territorial Planning, for Integrated Coastal Zone Management (ICZM), including specific planning instruments such as Coastal Zone Management Plans (POOC).
 - Prevent natural degradation and degradation resulting from human activities, as well as support the recovery of degraded areas and enhance natural, historical, cultural and landscape heritage.

- Encourage socio-economic activities compatible with the sustainable development of coastal zones, ensure and promote compatibility between different coastal uses and activities, and minimise environmental, economic and social risks and impacts.
- Align maritime spatial planning and management with the national plan for the National Protected Areas System, in an integrated manner with all other national policies and territorial planning instruments.
- Contribute to the implementation of the NAPA as a planning tool identifying areas for immediate action with proposed adaptation measures, including the protection of coastal ecosystems against the impacts of climate change.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
3.1.1	Establish a working group with relevant stakeholders for the preparation of the Legal Framework for the Planning and Management of the National Maritime Space.	- Blue Economy Working Group	- Formal establishment of the working group for the preparation of the Legal Framework for Maritime Spatial Planning of the National Maritime Space, with the first working meeting held on 21 August 2025 and the second on 28 October 2025. - Representation of relevant stakeholders. - Number of meetings held and technical documents produced.	- Working group established with representatives of relevant ministries, to be duly formalised. - At least 80% of relevant entities (ministries, maritime authorities, environment, planning, fisheries, coastal communities, private sector and academia) represented in the working group for the implementation of the Legal Framework. - At least six meetings held per year. - Blue Economy Working Group established and two meetings held in 2025, with exchange of correspondence for contributions.	SHORT TERM
3.1.2	Prepare and approve the Legal Framework for the Planning and Management of the National Maritime Space, which shall include planning tools and a public process that analyses and allocates the spatial and temporal distribution of uses and activities, based on a comprehensive and transparent decision-making process.	- Blue Economy Working Group	- Draft law establishing the “Bases for the Planning and Management of the National Maritime Space” prepared following extensive interministerial consultation. - Development of the legal framework addressing specific matters, namely the planning system and instruments, exclusive use, and the economic-financial regime, among others.	- Blue Economy Working Group established and two meetings held in 2025, with exchange of correspondence for contributions. Draft law establishing the “Bases for the Planning and Management of the National Maritime Space” submitted to the Council of Ministers for consideration on 14 November 2025.	SHORT TERM

			<ul style="list-style-type: none"> - Number of formal public consultation processes carried out during the preparation of the complementary legislation, including participation of coastal communities and stakeholders. - Existence of a complete draft of the Legal Framework for the Planning and Management of the National Maritime Space. - Number of public consultations conducted and contributions received and processed. - Formal status of the law within the legislative cycle. 	<ul style="list-style-type: none"> - Law approved, promulgated and published establishing the “Bases for the Planning and Management of the National Maritime Space”. - Complementary legislation approved and in force for the implementation of Maritime Spatial Planning and Management of the National Maritime Space. - Integration of geospatial information and digital data (e.g. TasiLink/Blue Economy Website) in planning and licensing processes. - Formal mechanisms for public participation and consultation of coastal communities institutionalised within maritime planning processes. 	
3.1.3	Assess the feasibility of using tools to support the development of national maritime spatial management that ensure the promotion of participatory planning, such as “SeaSketch”.	<ul style="list-style-type: none"> - MPSI - Blue Economy Working Group 	<ul style="list-style-type: none"> - Existence of a comparative analysis of platforms supporting maritime spatial planning (including SeaSketch). - Number of demonstration/test sessions conducted with potential users. - Existence of a formal decision regarding the use of a participatory planning support tool. 	<ul style="list-style-type: none"> - Technical report completed and approved by the working group. - Demonstration/trial sessions of the selected tool(s) conducted, with participation of at least 30 participants in total and systematic collection of feedback. - Formal decision issued (order, minutes of the working group or approved opinion). 	SHORT TERM
3.1.4	Develop appropriate mechanisms for coordination and cooperation between different national agencies and entities, ensuring the contribution of stakeholders and safeguarding traditional and strategic uses and activities, including the preparation of integrated coastal zone management.	<ul style="list-style-type: none"> - Whole of Government - Municipal Authorities - Governance partners 	<ul style="list-style-type: none"> - Existence of agreements/protocols or formal coordination structures between entities. - Number of joint meetings held and decisions/contributions produced. - Level of participation of stakeholders (coastal communities, private sector, NGOs, academia) 	<ul style="list-style-type: none"> - Formal instruments established defining rules of articulation between the main agencies with competence over maritime space and the coastal zone. - At least four coordination meetings held per year, with approved minutes and at least four joint decisions or recommendations issued on matters related to maritime 	MEDIUM TERM

- Degree of consideration of traditional/strategic uses in decision-making.

spatial planning and integrated coastal zone management.
- Identified stakeholders involved in consultation processes.

3.2 MARINE PROTECTED AREAS

STRATEGIC OBJECTIVES

- Contribute to the international commitment adopted at the 15th Conference of the Parties to the Convention on Biological Diversity in 2022, the “Kunming-Montreal Global Biodiversity Framework”, which introduced new targets and a more ambitious and updated response to the challenges faced by biodiversity globally, namely to protect at least 30% of global terrestrial and marine areas through protected areas and other effective conservation measures by 2030.
- Protect and maintain threatened marine species and their habitats, as well as marine and coastal ecosystems, to ensure the health of seas and the ocean.
- Contribute to the sustainable management of marine resources, notably through the regulation of economic activities such as fisheries, aquaculture and the harvesting of marine species (seaweeds, molluscs, etc.), also as a means of ensuring the sustainability of present and future coastal communities.
- Support national and international scientific research to obtain scientific and technical surveys identifying protection needs, critical breeding and development areas of marine species, and the status of their habitats and associated ecosystems, to provide data for the development of public policies that create an enabling environment for the survival and prosperity of species.
- Contribute to increased resilience and adaptation to climate change, strengthening the implementation of the NAPA.
- Contribute to sustainable economic development, notably through sustainable tourism and community-based ecotourism associated with MPAs.
- Contribute to food security by ensuring the stocks and health of marine species, particularly fish, thereby improving the socio-economic conditions of the communities of Timor-Leste.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
3.2.1	Establish a working group with relevant stakeholders for the preparation of the Legal Framework for Marine Protected Areas.	- Blue Economy Working Group - Governance partners	- Number of entities/institutions represented in the working group. - Number of working group meetings held per year, in accordance with the approved work plan. - Number of technical documents produced (drafts, proposed articles, opinions, public consultation reports) to support the preparation of the Legal Framework.	- Interinstitutional working group created and formalised. - Effective and representative participation of key stakeholders (including coastal communities and the scientific community) in the process of preparing the Legal Framework for Marine Protected Areas. - Consolidated proposal for the Legal Framework for Marine Protected Areas prepared and submitted to the competent authority for approval, based on the contributions of the working group.	SHORT TERM

				- Improved coordination among relevant institutions in the governance of Marine Protected Areas, reflected in more coherent decisions and reduced overlap of competences.	
3.2.2	Develop a questionnaire to be applied to all relevant stakeholders for the analysis of the situation and needs in processes related to the classification, management and monitoring of Marine Protected Areas (MPAs) in the seabed and subsoil, and in the water column and surface of the maritime space of Timor-Leste.	- Blue Economy Working Group	<ul style="list-style-type: none"> - Number of versions of the questionnaire prepared and validated (from initial draft to final version). - Number of relevant stakeholders mapped and segmented by category (government institutions, local communities, private sector, academia, NGOs, development partners). - Number of questionnaires administered and response rate (percentage of responses obtained in relation to the total questionnaires sent). - Percentage of questions fully answered in each questionnaire (quality and completeness of information collected). - Number of thematic domains covered by the questionnaire, such as: MPA classification, management, monitoring, technical capacities, financial resources, legal and institutional framework. 	<ul style="list-style-type: none"> - Standardised and validated questionnaire for collecting information on the current situation and needs related to the classification, management and monitoring of MPAs across the entire maritime space of Timor-Leste. - Comprehensive mapping of relevant stakeholders and their needs, capacities and roles within the MPA system (seabed, subsoil, water column and surface). - Structured database containing information collected through the questionnaire, suitable for use in the formulation of MPA policies, management plans and legal frameworks. - Clear identification of capacity, resource and institutional coordination gaps, enabling the prioritisation of training, investment and institutional strengthening actions. - Improved alignment of MPA policy and management measures with the needs expressed by relevant stakeholders, increasing the effectiveness and acceptance of future interventions. 	SHORT TERM
3.2.3	Develop appropriate mechanisms for coordination and cooperation between different national agencies and entities, ensuring the contribution of stakeholders and safeguarding traditional and strategic uses and activities.	- Blue Economy Working Group - Governance partners	<ul style="list-style-type: none"> - Number of formal coordination mechanisms established. - Number of national institutions/agencies involved in the coordination mechanisms, including representatives of communities, the private sector and other relevant stakeholders. - Number of coordination meetings held per year, with approved minutes and an updated interinstitutional action plan. - Percentage of MPA management plans evidencing prior consultation with stakeholders and explicit consideration of traditional and strategic uses and activities. 	<ul style="list-style-type: none"> - Interinstitutional coordination mechanisms formalised and operational, with clear mandates, operating rules and defined responsibilities among relevant national entities. - Systematic and structured participation of stakeholders (coastal communities, traditional users, private sector and civil society) in MPA planning, management and monitoring processes. - Reduced use conflicts and greater coherence between conservation objectives, traditional activities and 	SHORT TERM

			<ul style="list-style-type: none"> - Number of use conflicts or overlaps identified and addressed through the coordination mechanisms (e.g. between conservation, fisheries, maritime transport, defence, tourism). 	<p>national strategic interests within the maritime space of Timor-Leste.</p> <ul style="list-style-type: none"> - Effective integration of traditional and local knowledge into MPA planning and management instruments, strengthening the legitimacy and acceptance of adopted measures. - Improved efficiency and predictability in decision-making, reflected in faster processes, strengthened coordination and more rational use of institutional and financial resources. 	
3.2.4	Analyse and implement the national adoption of the scientific and technical criteria describing Ataúro Island and Nino Konis Santana National Park as an EBSA, in accordance with the 13th Conference of the Parties to the Convention on Biological Diversity, held in 2016.	<ul style="list-style-type: none"> - PM/LMBO - Governance partners to be identified 	<ul style="list-style-type: none"> - Number of scientific and legal studies and opinions produced on the application of EBSA criteria to Ataúro Island and Nino Konis Santana National Park in the national context. - Number of EBSA criteria analysed and explicitly integrated into relevant national instruments (MPA legal framework, spatial planning instruments, management plans). - Number of formal acts or official decisions recognising, under national law, the description of Ataúro and Nino Konis Santana as areas of special ecological or biological significance. - Percentage of the marine area of Ataúro and of Nino Konis Santana Park that becomes covered by conservation measures aligned with EBSA criteria. - Number of consultation and validation sessions with national and international experts, local communities and other stakeholders on the adoption and implementation of EBSA criteria. 	<ul style="list-style-type: none"> - EBSA scientific and technical criteria analysed, interpreted and adapted to the legal and institutional framework of Timor-Leste, with reference documentation available in a national language. - Formal recognition, in national instruments, of the ecological and biological relevance of Ataúro Island and Nino Konis Santana National Park, consistent with the decisions of the 13th Conference of the Parties to the CBD. - Effective integration of EBSA criteria into the design and review of Marine Protected Areas, management plans and conservation measures in the areas of Ataúro and Nino Konis Santana National Park. - Strengthened scientific basis and international credibility of Timor-Leste's marine conservation policies, facilitating access to international technical and financial support. - Improved conservation status of key habitats and species in areas recognised as EBSAs, demonstrated through ecological indicators defined in monitoring plans. 	SHORT TERM
3.2.5	Analyse and implement the findings and recommendations arising from the Court of Auditors' audit of protected areas, carried out between 2021 and	<ul style="list-style-type: none"> - PM/LMBO - VPM I - MoTE - MALFF - Governance partners 	<ul style="list-style-type: none"> - Number of audit recommendations identified and classified (by priority, responsible entity, implementation deadline). - Percentage of recommendations with an action plan prepared and approved, 	<ul style="list-style-type: none"> - Audit findings and recommendations systematised and analysed, with clear identification of gaps, risks and opportunities for improvement in the management of protected areas. 	SHORT TERM

	2022, within the framework of nature and biodiversity conservation policy and internationally assumed commitments.		<ul style="list-style-type: none"> - including measures, deadlines and responsible parties. - Percentage of recommendations implemented (fully or partially) within the scope of nature and biodiversity conservation policy. - Number of internal acts or procedures reviewed or created in response to the audit recommendations. - Number of follow-up and monitoring reports produced and submitted to the competent entities. 	<ul style="list-style-type: none"> - Interinstitutional action plan implemented, aimed at responding to the audit recommendations. - Strengthened legal, financial and procedural compliance in the management of protected areas, evidenced by a reduction in the weaknesses highlighted by the audit. 	
3.2.6	<p>Prepare and approve the Legal Framework for Marine Protected Areas.</p> <ul style="list-style-type: none"> - Blue Economy Working Group - Governance partners 		<ul style="list-style-type: none"> - Number of versions of the draft Legal Framework prepared (from the initial draft to the final version submitted for approval). - Number of entities formally consulted during the drafting process. - Number of public consultations and hearing sessions conducted, with minutes or summary reports produced. - Number of technical and legal opinions issued on the draft Legal Framework. - Approval act published, with the respective date of entry into force. 	<ul style="list-style-type: none"> - Draft Legal Framework for Marine Protected Areas prepared based on scientific evidence, international best practices and stakeholder contributions. - Legal Framework for Marine Protected Areas approved and in force, defining principles, objectives, categories of MPAs, institutional competences, management instruments and enforcement mechanisms. - Clear and harmonised legal framework for the creation, classification, management, monitoring and review of MPAs throughout the maritime space of Timor-Leste. - Greater legal certainty and predictability for users and communities, reducing conflicts and promoting compatibility between conservation, traditional uses and economic activities. - Strengthened State capacity to fulfil international commitments in marine conservation and biodiversity, facilitating the mobilisation of technical and financial support. 	SHORT TERM
3.2.7	<p>Plan the creation of the National MPA Network, integrated into the National Protected Areas System.</p> <ul style="list-style-type: none"> - Blue Economy Working Group - Governance partners 		<ul style="list-style-type: none"> - Number of studies and technical analyses carried out to support the design of the National MPA Network (e.g. ecological representativeness analyses, pressures and threats). - Number of proposed areas identified and prioritised for inclusion in the National MPA 	<ul style="list-style-type: none"> - Conceptual and operational model of the National MPA Network defined, including objectives, principles, area categories, inclusion criteria and mechanisms for articulation with the National Protected Areas System. - Proposed spatial configuration of the National MPA Network prepared, 	SHORT TERM

			<p>Network, based on ecological, socio-economic and cultural criteria.</p> <ul style="list-style-type: none"> - Number of planning documents prepared and validated (Network concept, technical guidelines, selection criteria, phased implementation plan). - Number of entities and stakeholders involved in the planning process (public institutions, local communities, private sector, academia, NGOs). - Percentage of national maritime space potentially covered by the proposed National MPA Network, in coherence with national and international conservation targets. 	<p>identifying priority conservation areas, ecological corridors and sustainable use zones.</p> <ul style="list-style-type: none"> - Integration of the National MPA Network into the national policy and planning framework, articulated with the MPA Legal Framework and the National Protected Areas System. 	
3.2.8	<p>Identify Marine Protected Areas established formally and informally in Timor-Leste and integrate them into the National Network of Marine Protected Areas, defining typology and respective management plans, including Locally Managed Marine Protected Areas.</p>	<ul style="list-style-type: none"> - Blue Economy Working Group - Governance partners 	<ul style="list-style-type: none"> - Number of formally designated Marine Protected Areas identified and validated. - Number of informal or community Marine Protected Areas identified (Locally Managed Marine Protected Areas identified; <i>Tara Bandu</i>/traditional local protection areas) - Number of marine areas integrated into the proposed National Network of Marine Protected Areas, indicating typology (national park, nature reserve, protected landscape, etc.) in accordance with the applicable legal framework. - Percentage of the total marine area identified as protected (formally and informally) that is included in the proposed National Network of Marine Protected Areas. - Number of management plans prepared or revised for areas integrated into the National Network of Marine Protected Areas, in accordance with the national legal framework. - Number of <i>Tara Bandu</i> processes related to marine management documented, recognised or supported by government entities. - Number of agreements, protocols or formal cooperation mechanisms established between the State and local communities for the co-management of Locally Managed Marine Protected Areas. 	<ul style="list-style-type: none"> - Consolidated national inventory of Marine Protected Areas in Timor-Leste, including formal designations under the National Protected Areas System and community/traditional marine conservation initiatives, including the survey and recognition of Locally Managed Marine Protected Areas. - Integration of the identified areas into the National Network of Marine Protected Areas, with clear assignment of protected area typology and articulation with the National Protected Areas System. - Specific management plans prepared or updated for the main marine areas integrated into the Network, including conservation, sustainable use, enforcement and monitoring measures. - Greater recognition and valorisation of traditional and community marine conservation practices, through their inclusion within the National Network of Marine Protected Areas. - Institutional and technical strengthening of community management structures. - Progressive integration of Locally Managed Marine Protected Areas into the national conservation system, respecting community autonomy and traditional knowledge. 	SHORT TERM

			<ul style="list-style-type: none"> - Number of capacity-building initiatives and technical-financial support actions carried out for community leaders and local management committees of Marine Protected Areas. - Percentage of Locally Managed Marine Protected Areas integrated or recognised within the framework of the National Network of Marine Protected Areas or other national conservation instruments. 	<ul style="list-style-type: none"> - Valorisation and safeguarding of <i>Tara Bandu</i> practices applied to the sea and coastal zones. - Improved status of local marine resources and sustainability of economic activities. 	
3.2.9	<p>Invest in the human resources, science and technology necessary to achieve the objectives related to the classification, management and monitoring of MPAs.</p>	<ul style="list-style-type: none"> - Blue Economy Working Group - Governance partners <p>(Articulate with Pillar 1 and 2)</p>	<ul style="list-style-type: none"> - Number of technicians trained in areas relevant to MPAs (marine biology, protected area management, enforcement, GIS and digital platforms, monitoring, participatory governance). - Number of training actions, internships and capacity-building initiatives carried out per year, in national institutions and, where applicable, international institutions. - Number of multidisciplinary technical teams established and operational to support the classification, management and monitoring of MPAs (central and municipal levels). - Number of equipment and technologies acquired and in use (for example, enforcement vessels, diving equipment, sensors, laboratories, GIS, databases, drones, etc.). - Percentage of the annual sector budget dedicated to human resource capacity-building and investment in science and technology for MPAs. 	<ul style="list-style-type: none"> - Strengthened national technical capacity to plan, classify, manage and monitor MPAs, with qualified and operationally active teams. - Improved scientific and technological infrastructure, enabling regular and reliable collection, analysis and storage of data on marine and coastal ecosystems. - Increased quality and frequency of MPA monitoring, reflected in updated data to support decision-making and compliance with international commitments. - Reduced exclusive reliance on external technical assistance in key areas, through the development of specialised national expertise in marine conservation. 	MEDIUM/LONG TERM
3.2.10	<p>Establish national, regional and international partnerships and cooperation for the management of existing MPAs and the establishment of new areas.</p>	<ul style="list-style-type: none"> - Blue Economy Working Group - MFAC - Governance partners 	<ul style="list-style-type: none"> - Number of partnership agreements or formal cooperation instruments concluded (protocols, MoUs, programme contracts) with national, regional and international entities related to MPAs. - Number of partner institutions involved (universities, research centres, NGOs, regional organisations, United Nations agencies, development partners). - Number of joint projects implemented in the areas of management, monitoring, 	<ul style="list-style-type: none"> - National, regional and international partnership network established and operational in support of the management of existing MPAs and the establishment of new areas. - Strengthened access to technical and scientific knowledge and international good practices, applied to the classification, management, enforcement and monitoring of MPAs in Timor-Leste. 	SHORT TERM

			<p>enforcement or the creation of new MPAs, in cooperation with national, regional or international partners.</p> <ul style="list-style-type: none"> - Annual amount of funding or in-kind support mobilised through partnerships (equipment, training, technical assistance, scholarships, etc.). - Percentage of existing MPAs supported by at least one active partnership, whether for management, research, monitoring or associated community development. 	<ul style="list-style-type: none"> - Increased capacity to mobilise financial and technical resources for the implementation of management plans and the expansion of the National Network of Marine Protected Areas. - Integration of Timor-Leste into regional marine conservation initiatives and networks, contributing to ecological connectivity and cooperation within the Coral Triangle and the Pacific. - Improved effectiveness and sustainability of MPAs through joint actions with partners. 	
3.2.11	<p>Resume the efforts already initiated to have Nino Konis Santana National Park recognised as a biosphere reserve, through the submission of the park under UNESCO's "Man and the Biosphere" Programme.</p>	<ul style="list-style-type: none"> - MALFF - MoTE - MFAC - ME/CNU 	<ul style="list-style-type: none"> - Number of technical studies and background documents updated or prepared to support the application (delimitation of core, buffer and transition zones; ecological and socio-economic diagnosis; legal and institutional framework). - Number of versions of the UNESCO nomination dossier prepared (from the initial draft to the final version submitted). - Number of entities and stakeholders involved in the preparation process (government institutions, local authorities, communities, NGOs, academia, international partners). - Number of consultations and validation sessions held with local communities and other relevant stakeholders regarding the proposed biosphere reserve. - Formal submission of the nomination to UNESCO within the established deadline, with confirmation of receipt and, subsequently, UNESCO's decision on the nomination (approved, approved with recommendations, or to be revised). 	<ul style="list-style-type: none"> - Nomination dossier of Nino Konis Santana National Park as a biosphere reserve prepared and submitted to UNESCO's "Man and the Biosphere" Programme, in accordance with formal and technical requirements. - Active involvement of local communities and other stakeholders in the design of the nomination, including participatory definition of zones and conservation and sustainable development priorities. - Strengthened international recognition of the ecological, cultural and social value of Nino Konis Santana National Park, through the attainment of biosphere reserve status or significant progress in the nomination process. - Creation or consolidation of an integrated management framework for the park, aligned with biosphere reserve principles. - Increased potential to mobilise international technical and financial support for the management of Nino Konis Santana National Park and for the sustainable development of resident communities. 	SHORT TERM
3.2.12	<p>Ratify CITES to address the harvesting, transport and illegal sale of CITES-listed species originating from Timor-Leste.</p>	<ul style="list-style-type: none"> - PM/LMBO - MALFF - MoTE - MFAC - Other ministries and governance partners 	<ul style="list-style-type: none"> - Formal act of ratification completed (date of approval by the competent national authority and date of deposit of the instrument of accession/ratification with the Convention's depositary). 	<ul style="list-style-type: none"> - Timor-Leste becomes a Party to CITES, formally assuming international obligations to control trade in endangered species of wild fauna and flora. 	SHORT TERM

- Number of national legislative instruments drafted or revised for the implementation of CITES (covering harvesting, transport, export, re-export and domestic trade of listed species).
- Number of authorities designated for CITES implementation (Management Authority, Scientific Authority, focal points within customs, police and environmental enforcement bodies).
- Number of officers trained (customs, police, fisheries inspection, environmental authorities, etc.) in CITES species identification, licensing procedures and anti-trafficking enforcement.
- Number of CITES permits and certificates issued and number of seizures recorded relating to the harvesting, transport and illegal sale of CITES-listed species originating from Timor-Leste.

- National legal and institutional framework aligned with CITES, regulating the harvesting, transport, export, re-export and domestic trade of listed species.
- Strengthened enforcement and compliance capacity, with improved detection, seizure and deterrence of illegal activities involving CITES-listed species.
- Reduced pressure on protected species, including marine and coastal species, contributing to biodiversity conservation and the fulfilment of international commitments.
- Enhanced international image and credibility of Timor-Leste in combating wildlife trafficking, facilitating cooperation and technical support with other countries and international organisations.

3.2.1 ATAÚRO NATIONAL PARK

STRATEGIC OBJECTIVES

- Establish the Ataúro National Park as a legally protected area, composed of multiple zones with different categories of protection and use of Marine Protected Areas (MPAs), based on a balance between the best available scientific knowledge and local and traditional knowledge.
- Invest in a model of environmental protection and sustainable development for Ataúro, combining marine conservation and community-based tourism through nature-based solutions: a small island with a big heart.
- Promote the Ataúro National Park as a privileged biodiversity laboratory and a conservation platform supported by strong governance, capable of attracting funding and donor support, as well as scientists and academics from around the world.
- Promote nature-based solutions and ecosystem conservation projects with appropriate land–sea interaction, including mangrove restoration, conservation of seaweed and seagrass, and reforestation projects, in partnership with local communities.
- Create sustainable income for local communities through sustainable revenue-generation and benefit-sharing mechanisms, drawing on international best practices and insights from visitor-focused research, ensuring adaptation to the local cultural context.
- Create economic opportunities and employment in the fields of environmental protection, ecotourism and the Blue Economy, fostering a sustainably growing economy in harmony with the natural environment.
- Consider submitting the Ataúro National Park as a candidate for the UNESCO World Heritage Marine Programme. Such designation would provide Timor-Leste with a significant advantage in gaining international attention, both in attracting tourism and in stimulating interest from the international community for marine scientific

research on Ataúro Island and potentially securing funding, with the ultimate objective of strengthening capacity for the effective management of marine protected areas.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
3.2.1.1	Finalise the Ataúro Strategic Development Plan for approval by the Council of Ministers.	MoSA Ataúro Administrative Authority FEDA	<ul style="list-style-type: none"> - Ataúro Strategic Development Plan drafted up to its final version. - Number of entities and stakeholders consulted during the drafting and review of the plan. - Ataúro Strategic Development Plan approved by the Council of Ministers, with the official act duly published. 	<ul style="list-style-type: none"> - Ataúro Strategic Development Plan finalised and approved, aligned with the Timor-Leste Blue Economy Policy and Action Plan. - Contributions from local communities and other stakeholders incorporated into the final version of the plan. - Priorities, targets and implementation mechanisms clearly defined, serving as a basis for resource mobilisation and partnerships for Ataúro. 	SHORT TERM
3.2.1.2	Establish the Ataúro National Park as a legally protected area, with defined zones and protection and use categories.	<ul style="list-style-type: none"> - PM/LMBO - MALFF - MoTE - MoSA/FEDA - Ataúro Administrative Authority - Partners and local communities 	<ul style="list-style-type: none"> - Legal act establishing the Ataúro National Park approved and published, including date of entry into force. - Number of zone categories defined (for example, strict protection zone, sustainable use zone, tourism zone, community co-management zones). - Percentage of Ataúro's terrestrial and marine area covered by the National Park and its respective zones. - Number of planning and management instruments approved (management plan, detailed zoning plan, use regulations). - Number of meetings or consultation processes conducted with local communities and other holders of traditional knowledge during the design phase of the National Park. 	<ul style="list-style-type: none"> - Ataúro National Park legally established, with clearly defined boundaries, conservation objectives and protection regime. - Zoning system implemented, combining different protection and use categories in balance between conservation, local subsistence and sustainable economic activities. - Effective integration of scientific knowledge and local/traditional knowledge in the spatial configuration and management rules of the park. - Greater legal certainty for users and communities, with clear rules on what is permitted or prohibited in each zone. - Contribution of the park to national and international conservation targets, in particular Sustainable Development Goal 14 and the Global Biodiversity Framework. 	SHORT TERM
3.2.1.3	Promote nature-based solutions projects and land-sea ecosystem conservation (mangroves, seaweed,	<ul style="list-style-type: none"> - MALFF - MoTE - MoSA/FEDA - Ataúro Administrative Authority - Partners and local communities 	<ul style="list-style-type: none"> - Number of nature-based solutions projects designed and implemented (mangrove restoration, conservation/recovery of seaweed and seagrass, coastal reforestation). 	<ul style="list-style-type: none"> - Key land-sea transition ecosystems (mangroves, seagrass, seaweed, coastal forests, etc.) better conserved and/or restored in Ataúro. 	MEDIUM TERM

	seagrass, reforestation).		<ul style="list-style-type: none"> - Number of nature-based solutions projects designed and implemented (mangrove restoration, conservation/recovery of seaweed and seagrass, coastal reforestation). - Total area (hectares) of seagrass and seaweed mapped and under conservation measures or active management. - Number of communities involved in joint land-sea restoration and conservation actions in Ataúro. - Percentage of nature-based solutions projects that include participatory ecological monitoring components. 	<ul style="list-style-type: none"> - Increased resilience of the island to climate change and extreme events, due to the ecological functions of restored ecosystems (coastal protection, carbon sequestration, nursery habitats). - Active participation of local communities in the design, implementation and monitoring of nature-based solutions projects. - Integration of nature-based solutions into the Ataúro National Park management plans and local spatial planning policies. - Improvement of local ecosystem services, including coastal fisheries, microclimate regulation and ecotourism opportunities. 	
3.2.1.4	<p>Conduct surveys and scientific studies to develop a biodiversity baseline study for Ataúro, integrated into the Timor-Leste Marine Biodiversity Survey and Study.</p>	<ul style="list-style-type: none"> - LMBO - MALFF - MoTE - MoSA - MPSI - Ataúro Administrative Authority - Partners and local communities <p>(Articulate with Pillar 1: 1.2)</p>	<ul style="list-style-type: none"> - Number of surveys and field campaigns conducted in Ataúro (marine and coastal) within the framework of the Timor-Leste Marine Biodiversity Survey and Study. - Number of technical reports and scientific publications produced on the biodiversity of Ataúro (species, habitats, pressures, conservation status). - Ataúro biodiversity baseline study completed and formally integrated into the Timor-Leste Marine Biodiversity Survey and Study. 	<ul style="list-style-type: none"> - Baseline scientific knowledge of Ataúro's biodiversity significantly strengthened, including identification of priority habitats and species for conservation. - Ataúro baseline study available as a technical reference for the establishment, zoning, management and monitoring of the Ataúro National Park. - Integration of Ataúro data into the national marine biodiversity framework, enabling comparisons, indicator development and evidence-based decision-making at the Timor-Leste level. 	MEDIUM TERM
3.2.1.5	<p>Conduct extensive community surveys and consultations, linked to the Timor-Leste Marine Biodiversity Survey and Study programme, also to raise awareness of the need to protect areas of high conservation value (MPAs).</p>	<ul style="list-style-type: none"> - LMBO - MALFF - MoTE - MoSA - MPSI - Ataúro Administrative Authority - Partners and local communities <p>(Articulate with Pillar 1: 1.2)</p>	<ul style="list-style-type: none"> - Number of surveys administered and community consultations conducted in Ataúro under the Timor-Leste Marine Biodiversity Survey and Study programme. - Number of community participants involved (disaggregated by gender, age and socio-professional group) in the surveys and consultations. - Number of community recommendations systematised regarding MPA typologies and protection categories incorporated into proposals for the designation, management and monitoring of MPAs. 	<ul style="list-style-type: none"> - Perceptions, knowledge and priorities of local communities systematically integrated into the design of MPA typologies and protection categories. - Participatory identification of areas of high conservation value, combining scientific data with local and traditional knowledge. - Greater social acceptance and legitimacy of newly established or strengthened MPAs, reflected in increased community adherence to management and monitoring rules. 	SHORT TERM

3.2.1.6	Establish institutional agreements and international partnerships to support the establishment of the Ataúro National Park.	<ul style="list-style-type: none"> - LMBO - MALFF - MoTE - MoSA - MPSI - Ataúro Administrative Authority - Partners and local communities 	<ul style="list-style-type: none"> - Number of formal institutional agreements concluded between ministries and the Ataúro Administrative Authority for the establishment and management of the Ataúro National Park. - Number of international partnerships established (universities, international organisations, NGOs, donors) specifically aimed at supporting the park. - Annual amount of funding or technical assistance mobilised through such agreements and partnerships for actions related to the establishment and management of the Ataúro National Park. 	<ul style="list-style-type: none"> - Clear interinstitutional coordination mechanisms established, involving the Ataúro Administrative Authority and relevant ministries in the process of creating and managing the Ataúro National Park. - Active network of international partnerships supporting the park, providing technical, scientific and financial assistance. - Strengthened institutional and operational capacity for the effective establishment and management of the Ataúro National Park, because of national and international cooperation. 	SHORT TERM
3.2.1.7	Develop and implement education and capacity-building actions for the local community, also within the framework of the National Ocean Literacy Programme, supporting local qualifications that lead to job creation.	<ul style="list-style-type: none"> - LMBO - MALFF - MoTE - ME - MoSA - MPSI - Ataúro Administrative Authority - Partners and local communities <p style="text-align: center; color: blue;">(Articulate with Pillar 2)</p>	<ul style="list-style-type: none"> - Number of education and capacity-building actions carried out per year in Ataúro, including activities under the National Ocean Literacy Programme. - Number of participants trained in areas such as park rangers, sustainable fisheries and aquaculture, mangrove management, tourism services, environmental education, research, administration and finance, swimming and diving, communication, etc. - Percentage of trainees who subsequently engage in economic activities or roles linked to the Ataúro National Park and the Blue Economy (employment, self-employment, community associations). 	<ul style="list-style-type: none"> - Strengthened local capacities in environmental education, ocean literacy and technical skills related to the management of the Ataúro National Park and the Blue Economy. - Increased qualified local employment and self-employment, with Ataúro residents taking up roles such as park rangers, tour operators, sustainable fishers and aquaculture practitioners, mangrove managers, environmental educators and monitors, among other activities. - Greater community ownership of conservation and sustainable development, reflected in active participation in park management and in economic practices aligned with the protection of marine and coastal ecosystems. 	MEDIUM TERM
3.2.1.8	Invest in a model of environmental protection and sustainable development for Ataúro, combining marine conservation and community-based	<ul style="list-style-type: none"> - LMBO - MALFF - MoTE - MoSA - MPSI - Ataúro Administrative Authority - Partners and local communities 	<ul style="list-style-type: none"> - Number of community-based tourism projects implemented in Ataúro with an explicit link to marine conservation and nature-based solutions. - Number of nature-based solutions initiatives supported (for example, reef protection, coastal restoration, integrated land–sea management). - Percentage of tourism enterprises in Ataúro adopting environmentally sustainable practices 	<ul style="list-style-type: none"> - Integrated model of environmental protection and sustainable development in Ataúro consolidated, with strong interlinkages between marine conservation, community-based tourism and nature-based solutions. - Improved environmental quality and integrity of marine and coastal 	MEDIUM TERM

	tourism through nature-based solutions.		(certification, codes of conduct, waste management, limitation of impacts on reefs). - Number of training sessions delivered to tourism operators, local guides and communities in sustainable tourism and marine conservation. - Variation in average household income derived from community-based tourism among households engaged in economic activities linked to the park.	ecosystems, even with a controlled increase in tourism activity. - Strengthened role of local communities as stewards of the territory, benefiting economically from conservation. - Enhanced image of Ataúro as a responsible, high-quality ecotourism destination at national and international levels. - Reduction of environmentally harmful tourism and economic practices, replaced by sustainable alternatives.	
3.2.1.9	Define and administer entry fees (for foreign tourists) to finance the ongoing management of the Ataúro National Park.	- MoTE - MoF	- Number of legal acts and instruments approved to define, collect and allocate the fees (fee regulations, operational procedures, transparency and reporting mechanisms). - Annual amount of revenue generated from entry fees paid by foreign tourists and percentage of that revenue directly allocated to park management and to the recruitment of community members. - Number of local community members recruited and supported through fee revenues (park rangers, wardens, guides, management support staff).	- Transparent and functional entry fee system implemented, with clear rules on collection, management and allocation, and with the participation of local communities. - Recurring and predictable funding for the management of the National Park, reducing exclusive dependence on external funding and ensuring stable recruitment of local staff. - Greater involvement and direct benefit of local communities in park protection, reinforcing social acceptance of conservation measures and compliance with park regulations.	MEDIUM TERM
3.2.1.10	Ensure proper coordination between the Ataúro National Park and the establishment of the Ataúro Marine Research and Education Centre, supported by the National Ocean Literacy Programme and the Timor-Leste Marine Biodiversity Survey and Study.	- PM/LMBO - Other entities involved in the Research Centre and in the National Ocean Literacy Programme (Articulate with Pillar 1: 1.2; Pilar 2: 2.1.1 and 2.2)	- Number of formal coordination and cooperation instruments established between the Ataúro National Park, the Marine Research and Education Centre, the National Ocean Literacy Programme and the Timor-Leste Marine Biodiversity Survey and Study (protocols, joint plans, terms of reference). - Number of joint activities carried out per year (educational programmes, applied research actions, ocean literacy campaigns, participatory monitoring) involving the park, the centre and local communities. - Number and percentage of initiatives of the Centre and the Park that explicitly incorporate local knowledge and practices (including Tara Bandu and traditional knowledge) and make use	- Effective operational coordination between the Ataúro National Park and the Marine Research and Education Centre, integrated with the National Ocean Literacy Programme and the Timor-Leste Marine Biodiversity Survey and Study. - Structured involvement of Ataúro communities in research, education and park management, with recognition of local knowledge and practices and use of existing human and material resources. - Strengthened scientific, educational and community foundation underpinning the management of the Ataúro National Park, promoting participatory and informed governance.	MEDIUM TERM

			of human and material resources from Ataúro communities.		
3.2.1.11	Identify, develop and implement mechanisms to ensure the sustainability of the Ataúro National Park and the livelihoods of the communities living within it.	- LMBO - MALFF - MoTE - MoSA - MPSI - Ataúro Administrative Authority - Partners and local communities	- Number of sustainability mechanisms identified and designed for the Ataúro National Park (for example, fees, community concessions, payments for ecosystem services, tourism products, certifications). - Number of mechanisms effectively implemented and operational, with clear management rules and community participation. - Percentage of households in Ataúro communities deriving part of their income from sustainable activities associated with the park (ecotourism, sustainable fisheries, handicrafts, environmental services, etc.).	- A set of ecological, financial and institutional sustainability mechanisms for the Ataúro National Park operational, reducing dependence on ad hoc external support. - Local community livelihoods progressively aligned with conservation, with increased income derived from sustainable activities linked to the park. - Greater socio-economic and environmental resilience in Ataúro, with the park functioning as a driver of community well-being and long-term ecosystem protection.	MEDIUM TERM
3.3 TRANSBOUNDARY COOPERATION					
STRATEGIC OBJECTIVES					
<ul style="list-style-type: none"> • Promote bilateral cooperation between Timor-Leste and neighbouring countries, not only for the conservation and promotion of marine protected areas, but also for the promotion of peace and friendship. • Protect and maintain biodiversity and the natural and cultural resources associated with shared ecosystems and migratory marine species. • Share knowledge and experiences among local communities of neighbouring countries and promote the sustainable development of communities. • Facilitate the transfer of know-how, science and technology among neighbouring countries to enhance the effectiveness and success of marine conservation efforts. 					
NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
3.3.1	Conduct an inventory of all bilateral and regional cooperation projects in the marine domain, as well as proposed or established agreements and memoranda of understanding.	- PM/LMBO - MALFF - MFAC	- Number of bilateral and regional cooperation projects identified and recorded in the marine domain (conservation, enforcement, Blue Economy, research, etc.). Number of agreements, protocols and memoranda of understanding proposed or already established in the marine domain, systematised in an institutional database. - Percentage of relevant institutions contacted and responding (ministries, maritime authorities, universities, development partners, NGOs) to validate information on projects and agreements.	- Consolidated map of Timor-Leste's bilateral and regional cooperation in the marine domain, including ongoing, completed and planned projects, as well as the respective agreements and MoUs. - Improved internal and external coordination capacity in managing marine partnerships and initiatives, avoiding duplication and identifying synergies and gaps.	SHORT TERM

				- Up-to-date information base to guide new transboundary and regional cooperation initiatives, aligned with the Blue Economy Policy and marine conservation objectives.	
3.3.2	Review the content, objectives and commitments in these areas, ensuring the consistent use of documents and messaging (including maps), also to safeguard the maritime sovereignty of Timor-Leste.	- PM/LMBO - MALFF - MFAC	- Number of projects, agreements and memoranda of understanding reviewed in terms of content, objectives, commitments and cartographic representations (including maritime boundaries). - Number of guidance documents and standardised templates produced (communication guidelines, map templates, position papers) for consistent use by all relevant institutions. - Percentage of new or updated cooperation documents and instruments that use maps and messaging aligned with the official position of Timor-Leste on maritime sovereignty and jurisdiction.	- Harmonised content, objectives and commitments across marine cooperation instruments, coherently reflecting Timor-Leste's priorities in conservation and sustainable development. - Consistent and institutionalised use of official documents, messaging and maps, reducing ambiguities and risks to Timor-Leste's maritime sovereignty and jurisdiction. - Strengthened position and credibility of Timor-Leste in bilateral and regional fora, with externally aligned and technically sound communication regarding the national maritime domain.	SHORT TERM
3.3.3	Review cooperation mechanisms and ongoing projects with CTI-CFF, ATSEA and PEMSEA, to ensure that cooperation efforts for marine and coastal preservation and conservation do not prejudice the maritime sovereignty of Timor-Leste.	- PM/LMBO - MALFF - MFAC - Other relevant ministries and governance partners	- Number of cooperation mechanisms and ongoing projects with CTI-CFF, ATSEA and PEMSEA reviewed, including legal and technical-policy analysis of potential impacts on Timor-Leste's maritime sovereignty. - Number of recommendations and proposed adjustments (clauses, maps, document language, work plans) to align projects and cooperation mechanisms with Timor-Leste's official position on maritime boundaries and rights. - Percentage of mechanisms and projects with CTI-CFF, ATSEA and PEMSEA updated or renegotiated in accordance with those recommendations.	- Cooperation with CTI-CFF, ATSEA and PEMSEA aligned with Timor-Leste's national interests, ensuring that marine and coastal conservation actions do not conflict with the country's maritime sovereignty and jurisdiction. - Cooperation instruments reviewed and, where necessary, adjusted, with language, maps and commitments consistent with Timor-Leste's official position. - Greater legal and political certainty in Timor-Leste's participation in regional initiatives, enabling strengthened marine conservation without compromising sovereign rights.	SHORT TERM
3.3.4	Identify new areas for joint protection (notably in Batugadé, due to the presence of manta rays and important coral reefs,	- PM/LMBO - MALFF - MFAC - Other relevant ministries and governance partners	- Number of areas with potential for joint protection identified and characterised, including Batugadé and other zones with manta rays, coral reefs and/or high-value ecosystems, such as in Atauro. - Number of proposals for joint protected areas prepared (technical reports, maps, concept notes) and	- Portfolio of new priority areas for joint protection identified, with particular emphasis on Batugadé and other sites of high ecological importance and transboundary cooperation potential.	MEDIUM TERM

<p>and in Ataúro) and establish new partnerships and cooperation agreements.</p>	<p>(Articulate with Pillar 3: 3.2)</p>	<p>presented to potential partners and neighbouring countries. - Number of new partnerships and cooperation agreements established specifically for the creation and joint management of these protected areas (MoUs, protocols, action plans).</p>	<p>- New bilateral and/or regional partnerships operational, aimed at the establishment and coordinated management of joint marine protected areas. - Strengthened conservation of critical habitats and migratory species through joint protection initiatives that also promote peace, friendship and sustainable development between Timor-Leste and neighbouring countries.</p>	
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3.4 STRENGTHENING ENVIRONMENTAL IMPACT ASSESSMENT REGIMES

STRATEGIC OBJECTIVES

- **Improve the national legal framework relating to Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA), in accordance with the Framework Law on the Environment.**
- **Develop environmental management and assessment mechanisms to address potential gaps in national legislation, particularly about marine environmental impacts.**
- **Promote, in an integrated manner, marine biodiversity within the national maritime domain, in line with international best practices and in accordance with obligations under international law, within the framework of UNCLOS.**
- **Introduce legislation regulating the use of public domain property, including the coastal zone, with particular emphasis on normative solutions aimed at preserving the marine environment.**

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
3.4.1	<p>Analyse all legal instruments in force under the Framework Law on the Environment to identify gaps and improve the legal framework in environmental matters, with particular emphasis on the protection of marine biodiversity.</p>	<p>- PM/LMBO - VPM I/ MoTE - PCM</p>	<p>- Number of legal and regulatory instruments identified and analysed under the Framework Law on the Environment, including those directly or indirectly affecting the marine environment. - Number of gaps, inconsistencies or update needs identified in the legal framework, specifically related to environmental assessment, protection of marine biodiversity and coastal ecosystems. - Number of recommendations and proposals for amendments or new</p>	<p>- Consolidated diagnosis of the environmental legal framework in force, with clear identification of gaps and weaknesses, particularly in the field of marine biodiversity. - Robust technical and legal basis for the revision and updating of environmental legislation, including specific provisions on marine environmental</p>	SHORT TERM

			legal instruments prepared to strengthen the legal framework on environmental protection and marine biodiversity.	impact assessment and protection of coastal ecosystems. - Greater potential alignment of the national legal framework with international best practices and obligations arising under UNCLOS, preparing the ground for the effective strengthening of marine biodiversity protection in Timor-Leste.	
3.4.2	Proceed with the revision of the legal regime governing Environmental Impact Assessment (EIA).	- PM/LMBO - PCM - MoTE	- Number of legal instruments comprising the EIA regime reviewed or drafted (law, decree-laws, regulations and technical guidelines). - Number of consultations conducted and opinions received from public institutions, the private sector, communities and experts during the revision process. - New EIA legal regime approved and in force, with the official act published and the date of entry into force clearly defined.	- Updated and strengthened EIA regime, aligned with the Framework Law on the Environment, adequately covering impacts on marine and coastal ecosystems. - Clearer, more predictable and more rigorous EIA procedures, including specific criteria, thresholds and requirements for projects with impacts on the marine environment. - Improved State capacity to prevent, mitigate and manage significant environmental impacts, contributing to biodiversity protection and compliance with international environmental obligations.	SHORT TERM
3.4.3	Produce supporting legislation and regulations under the environmental legal framework and ensure their broad dissemination.	- PM/LMBO - MoTE - PCM - SECOMS	- Number of environmental legal instruments and regulations drafted and approved, including specific provisions on marine biodiversity	- Strengthened and operational environmental regulatory framework, with	SHORT TERM

			<p>protection and environmental impact assessment.</p> <ul style="list-style-type: none"> - Number of dissemination and training actions carried out (workshops, seminars, community sessions) on the new legal instruments and regulations. - Number of participants reached and percentage of target institutions involved (ministries, local authorities, private sector, NGOs, communities) in dissemination activities. 	<p>supporting legal instruments detailing procedures and responsibilities, including in the marine domain.</p> <ul style="list-style-type: none"> - Increased awareness and understanding of the new legal instruments and regulations among public institutions, the private sector and communities, facilitating their implementation. - Improved compliance with and effective enforcement of environmental legislation, contributing to enhanced environmental management and the protection of marine and coastal biodiversity. 	
3.4.4	<p>Promote knowledge and online access to information on environmental licensing, through the competent Ministries, the Blue Economy Portal and the TasiLink Platform.</p>	<ul style="list-style-type: none"> - PM/LMBO - MoTE /ANLA <p>(Articulate with Pillar 2: 2.4.16)</p>	<ul style="list-style-type: none"> - Number of types of information on environmental licences made available online (forms, requirements, legislation, step-by-step guidance, decisions issued), in coordination with the competent ministries, the National Environmental Licensing Authority (ANLA) and the TasiLink Platform (in the future). - Number of annual visits/consultations to environmental licensing pages on ministerial websites, the Blue Economy Portal and the TasiLink Platform. - Percentage of environmental licensing decisions and key documents (licences issued, terms of reference, EIA/SEA reports) published online within a defined timeframe after issuance. 	<ul style="list-style-type: none"> - Enhanced transparency and public access to information on environmental licensing, with citizens, businesses and communities able to easily access all relevant information online. - Greater understanding and compliance by project proponents with environmental licensing requirements, reducing errors and delays in procedures. - Blue Economy Portal, TasiLink Platform and ministerial websites consolidated as single reference points for environmental licensing information, supporting 	MEDIUM TERM

				good governance and the implementation of the Blue Economy Policy.	
3.4.5	Define dissemination activities concerning environmental protection legislation, to publicise the law to citizens and clarify and raise awareness of their rights and duties.	<ul style="list-style-type: none"> - PCM - MoTE /ANLA - SECOMS 	<ul style="list-style-type: none"> - Number of dissemination plans and materials produced (simplified guides, brochures, radio/TV spots, digital content) on environmental protection legislation, including marine and coastal components. - Number of dissemination actions carried out per year (community sessions, media campaigns, training sessions, school events) across different municipalities, including coastal communities. - Number of participants reached and percentage of target groups covered (local communities, private sector, schools, local authorities) through dissemination activities. 	<ul style="list-style-type: none"> - Citizens better informed about environmental legislation in force, including their rights, duties and mechanisms for participation and reporting. - Increased public awareness of the importance of environmental protection, particularly marine and coastal biodiversity. - Greater voluntary compliance with environmental legislation and active community participation in environmental protection, supporting the effectiveness of EIA regimes and environmental management systems. 	MEDIUM TERM
3.4.6	Establish legislative measures to amend criminal law in relation to environmental crimes, notably by proposing fines as sanctions, preventing the occurrence of environmental offences and contributing to State revenue.	<ul style="list-style-type: none"> - PCM - MoTE/ANLA - MoJ - MoF - Other relevant ministries 	<ul style="list-style-type: none"> - Number of legislative amendment proposals to criminal law and complementary legislation drafted and submitted, specifically addressing environmental crimes (including marine and coastal environments). - Number of environmental offence categories updated or newly created, providing, among other penalties, fines proportionate to the seriousness of the offence. - Annual amount of revenue generated from fines for environmental crimes and percentage of such revenue allocated to environmental protection and restoration funds or programmes. 	<ul style="list-style-type: none"> - Strengthened criminal framework in environmental matters, with more dissuasive sanctions (including fines) better tailored to the specific nature of environmental crimes, both on land and at sea. - Reduction in the incidence of environmental crimes through the general and specific deterrent effect of the new criminal and financial sanctions. 	MEDIUM TERM

				- Generation of additional State revenue, wholly or partially earmarked to finance enforcement actions, damage restoration and biodiversity conservation, including marine biodiversity.	
3.4.7	Propose measures to accelerate the adjudication of environmental crimes before the courts, as well as the training of justice sector actors.	- PCM - MoJ - Judicial System entities	- Number of proposals and instruments approved to expedite the handling of environmental crime cases (guidelines, interinstitutional protocols, procedural adjustments, establishment of specialised sections or courts, etc.). - Number of judges, prosecutors, public defenders, lawyers, court officials and enforcement officers trained in environmental law, environmental crimes and technical-scientific evidence. - Average reduction in the duration of environmental crime proceedings (from indictment to final decision), expressed as a percentage compared to the defined baseline.	- Environmental crime cases processed more swiftly and effectively, increasing the likelihood of conviction and environmental damage reparation. - Justice system actors better equipped in environmental law, evidentiary assessment techniques and the specific characteristics of environmental offences, including marine and coastal crimes. - Stronger deterrent effect and enhanced credibility of the criminal justice response to environmental crimes, contributing to the prevention of offences and the strengthened protection of biodiversity and ecosystems.	MEDIUM TERM

PILLAR 4: MARINE BIODIVERSITY CONSERVATION

4.1 CORAL REEFS

STRATEGIC OBJECTIVES

- **Understand and protect the coral reefs of Timor-Leste and create conditions to ensure they remain healthy, contributing to marine biodiversity and ocean health.**
- **Preserve biological diversity, protect coastal areas and maintain the health of marine ecosystems, while promoting fisheries and related activities and tourism in a balanced and sustainable manner.**

- Integrate community governance systems, such as Tara Bandu, into the national management of coral reefs, ensuring local ownership, cultural recognition and long-term sustainability.
- Promote sustainable Blue Economy opportunities (ecotourism, sustainable fisheries, reef-friendly businesses) that generate income while safeguarding reef ecosystems.
- Strengthen regional and international cooperation (CTI, ATSEA, PEMSEA) for the sharing of data, technologies and best practices for coral reef protection in a transboundary context.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
4.1.1	Map and study the coral reefs of Timor-Leste within the framework of the Timor-Leste Marine Biodiversity Survey and Study.	<ul style="list-style-type: none"> - MALFF - Blue Economy Working Group - Timorese lead institution for the Survey and Study process (to be identified and formally established) - MHESC/INCT/UNTL/ISP - Governance partners to be identified <p>(Articulate with Pillar 1: 1.2)</p>	<ul style="list-style-type: none"> - Number of kilometres of coastline and square kilometres of coral reefs mapped and characterised, including bathymetry and benthic habitat types. - Number of field campaigns and scientific surveys conducted (diving, underwater video, transects, remote sensing) to assess conservation status, live coral cover and species diversity. - Number of databases, thematic maps and technical reports produced on coral reefs (distribution, ecological status, pressures and threats) and integrated into the Timor-Leste Marine Biodiversity Survey and Study. 	<ul style="list-style-type: none"> - Comprehensive and up-to-date knowledge of the distribution, extent and condition of Timor-Leste's coral reefs, including identification of priority areas for conservation and restoration. - Reference maps and data available to support MPA planning, coastal management and decision-making, in line with international best practices in reef mapping. - Strengthened scientific basis for monitoring coral reef trends and assessing the impacts of human activities and climate change, contributing to the implementation of the Blue Economy Policy and regional commitments under the Coral Triangle framework. 	MEDIUM TERM
4.1.2	Adopt legislation and regulations to combat coral reef degradation in an integrated manner, including in relevant sectors such as fisheries and tourism.	<ul style="list-style-type: none"> - MALFF - MoTE 	<ul style="list-style-type: none"> - Number of legal instruments and sectoral regulations adopted or revised (environment, fisheries, tourism, coastal planning) including specific 	<ul style="list-style-type: none"> - Coherent and integrated legal and regulatory framework for coral reef protection, articulating environment, fisheries, 	MEDIUM TERM

			<p>provisions for coral reef protection.</p> <ul style="list-style-type: none"> - Number of management measures and operational restrictions defined (no-fishing zones, prohibition of explosives and chemicals, anchoring rules, tourism carrying capacity limits, codes of conduct for diving/snorkelling). - Percentage of priority reef areas covered by legal or regulatory instruments with clear protection rules and defined enforcement mechanisms. 	<p>tourism and coastal zone planning.</p> <ul style="list-style-type: none"> - Reduction of key anthropogenic pressures on reefs (destructive fishing, improper anchoring, unregulated tourism, pollution), contributing to maintaining or improving their ecological condition. - Greater legal certainty and enforcement capacity for competent authorities, facilitating the application of sanctions and encouraging sustainable practices in the fisheries and tourism sectors. 	
4.1.3	Promote community engagement in coral reef conservation.	<ul style="list-style-type: none"> - MALFF - MoTE - MoSA - Municipal Authorities 	<ul style="list-style-type: none"> - Number of community-based coral reef conservation initiatives supported or established. - Number of community members trained and actively involved in coral reef protection actions (awareness-raising, community surveillance, data collection, sustainable diving/fishing guides). - Percentage of priority reef areas where formal mechanisms for community participation in management exist (co-management agreements, Tara Bandu, recognised local committees, community sustainable use plans). 	<ul style="list-style-type: none"> - Coastal communities actively engaged in coral reef conservation, with local participation and co-management structures recognised by the competent authorities. - Increased adoption of sustainable practices by communities, reducing direct pressures on reefs. - Tara Bandu and other community-led management systems incorporated into national reef management plans, empowering local communities and ensuring the application of sustainable practices. - Strengthened social legitimacy and effectiveness of conservation measures, 	MEDIUM TERM

				with greater local ownership.	
4.1.4	<p>Promote education, knowledge and public awareness on the importance of coral reef conservation, also as part of the National Ocean Literacy Programme.</p> <p>- MALFF - MoTE - ME - Municipal Authorities</p> <p>(Articulate with Pillar 2 and 3)</p>	<p>- Number of educational and awareness-raising actions carried out per year (school sessions, community campaigns, radio/TV programmes, educational materials, activities under the National Ocean Literacy Programme specifically focused on coral reefs).</p> <p>- Number of people reached and percentage of target groups engaged in education and awareness activities on reef conservations.</p> <p>- Number of educational materials and resources produced and disseminated, including information on the ecological, economic and cultural importance of coral reefs and good conservation practices.</p>	<p>- Increased public knowledge about coral reefs – their ecological function, link to fisheries, coastal protection and tourism – integrated into the National Ocean Literacy Programme.</p> <p>- Greater awareness and behavioural change among coastal communities and the fisheries and tourism sectors, with growing adoption of reef-friendly practices.</p> <p>- Strengthened social and political support for coral reef conservation measures, facilitating the implementation of marine protected areas.</p>		MEDIUM TERM
4.2 MANGROVES					
STRATEGIC OBJECTIVES					
<ul style="list-style-type: none"> • Protect the biodiversity inhabiting mangrove ecosystems, including fish, crustacean, bird and plant species, keeping them healthy and resilient, also recognising their role as nurseries for numerous marine species. • Protect coastal areas and ensure the socio-economic sustainability of coastal communities. • Contribute to climate change mitigation, recognising that mangroves play a fundamental role in storing large quantities of carbon in soil and vegetation (carbon sequestration). • Protect the health of the sea and ocean and their ecosystems, through the essential role of mangroves in filtering pollutants and sediments, thereby ensuring improved water quality in coastal areas. • Contribute to economic diversification through the sustainable use of mangrove natural resources, including timber, marine resources and tourism. 					
NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME

4.2.1	Map mangrove forests nationwide.	<ul style="list-style-type: none"> - MALFF - MoTE - Timorese lead institution for the Survey and Study process (Marine Biodiversity) to be identified and formally established) -MHESC/INCT/UNTL/ISP - Governance partners to be identified 	<ul style="list-style-type: none"> - Number of hectares and percentage of the national coastline with mangroves mapped and validated, including delineation of their extent, density and conservation status. - Number of data collection campaigns conducted and cartographic products produced (processed satellite imagery, GIS databases, thematic mangrove maps, including degraded areas and priority sites for restoration). - Number of national and local institutions with access to and active use of mangrove maps (ministries, municipalities, universities, NGOs), including integration of mangrove layers into official information platforms. 	<ul style="list-style-type: none"> - Comprehensive and up-to-date knowledge of the location, extent and condition of mangrove forests nationwide, providing a basis for planning and decision-making. - Availability of georeferenced mangrove maps and databases to support the establishment of protected areas, coastal planning, ecological restoration and climate policies (blue carbon). - Improved capacity to monitor mangrove loss, recovery and changes over time, facilitating the assessment of project impacts, conservation measures and international commitments. 	MEDIUM TERM
4.2.2	Identify and reconcile the various studies and project reports produced, and assess intervention needs for maintenance, urgent protection and reforestation.	<ul style="list-style-type: none"> - MALFF - MoTE - Timorese lead institution for the Survey and Study process (to be identified and formally established) -MHESC/INCT/UNTL/ISP - Governance partners to be identified 	<ul style="list-style-type: none"> - Number of studies, reports and databases on mangroves identified, compiled and harmonised (including information on location, conservation status, uses and pressures). - Number of mangrove areas classified by type of intervention need (maintenance / conservation, urgent protection, reforestation/restoration), based on defined technical criteria. - Number of synthesis documents produced (information reconciliation report, national map of intervention priorities, list of critical sites) and percentage of key institutions that validate/endorse them (ministries, municipalities, universities, NGOs). 	<ul style="list-style-type: none"> - Consolidated and up-to-date overview of existing knowledge on mangroves in Timor-Leste, avoiding duplication of effort and making dispersed information accessible and comparable. - Clear identification of priority mangrove areas for maintenance, urgent protection and reforestation, enabling interventions to be prioritised and financial and technical resources to be directed accordingly. - Robust technical basis for the design of mangrove conservation and restoration programmes and projects, contributing to biodiversity protection, coastal resilience, carbon sequestration and community livelihoods. 	MEDIUM TERM
4.2.3	Increase mangrove forest coverage by at least 20% by 2030.	<ul style="list-style-type: none"> - MALFF 	<ul style="list-style-type: none"> - Number of hectares of new mangroves restored or planted (including enrichment of degraded areas) and percentage increase in total mangrove area compared to the initial baseline. 	<ul style="list-style-type: none"> - Effective increase of at least 20% in national mangrove area by 2030, contributing to enhanced coastal protection, nursery habitats and associated biodiversity. 	MEDIUM TERM

			<ul style="list-style-type: none"> - Number of mangrove reforestation sites established and actively managed (with management plans, defined native species, maintenance and ecological monitoring). - Average survival rate (%) of mangrove plantings after 1, 3 and 5 years, disaggregated by site, type of intervention (direct planting, assisted natural regeneration) and level of community involvement. 	<ul style="list-style-type: none"> - Functional restoration of degraded mangrove ecosystems, improving habitat quality for fish, crustaceans, birds and other species, as well as increasing blue carbon sequestration capacity. - Strengthened socio-economic resilience of coastal communities, through more extensive and healthier mangroves that support fisheries, reduce coastal erosion, mitigate storm impacts and create opportunities for sustainable use and ecotourism. 	
4.2.4	<p>Consider expanding the network of protected areas to include mangrove forests nationwide, including the adoption of management plans and regulations that promote and protect these forests.</p>	<ul style="list-style-type: none"> - MALFF - MoTE 	<ul style="list-style-type: none"> - Number of mangrove areas integrated or proposed for integration into the national network of protected areas and percentage of total mangrove area covered by an official protection category. - Number of mangrove-specific management plans and regulations (new or revised) drafted, consulted with stakeholders and approved for protected areas that include mangrove forests. - Percentage of protected areas containing mangroves with active implementation mechanisms (management committee, minimum annual budget, ongoing enforcement and ecological monitoring actions). 	<ul style="list-style-type: none"> - Expanded and more ecologically representative national network of protected areas, including a significant proportion of the country's mangrove forests under formal protection status. - Mangroves managed based on specific management plans and clear regulations, promoting biodiversity conservation, blue carbon sequestration and coastal protection. - Reduced mangrove loss and degradation over the medium and long term, with more effective enforcement, community participation and sustainable resource use, strengthening coastal resilience and local livelihoods. - Existence of a Mangrove Restoration and Investment Plan. 	MEDIUM TERM
4.2.5	<p>Evaluate and relaunch the Coastal Resilience Building Programme, extending it to all coastal municipalities.</p>	<ul style="list-style-type: none"> - MoSA - MPSI - MALFF - MoTE /AND - Municipal Authorities - Governance partners 	<ul style="list-style-type: none"> - Number of technical and institutional assessments carried out on the Coastal Resilience Building Programme (results, lessons learned, gaps, adjustment needs) and consolidated evaluation report produced. - Number of municipalities covered by the resumed and adjusted programme and percentage of the national coastline covered by resilience interventions (including mangrove/reef conservation and 	<ul style="list-style-type: none"> - Coastal Resilience Building Programme reassessed, redesigned and relaunched, incorporating lessons learned and best practices, with emphasis on the protection of mangroves, coral reefs and other natural defences. - Effective extension of the programme to all coastal municipalities, strengthening the protection of communities, infrastructure and coastal ecosystems against erosion, flooding, storms and climate change impacts. - Measurable improvement in the ecological and socio-economic resilience 	MEDIUM TERM

			restoration, dunes, green/grey infrastructure). - Number of coastal resilience projects and measures implemented per municipality (mangrove protection and restoration, erosion control, natural barriers, revegetation, coastal protection works), with a results monitoring system established.	of the coastline, with reduced critical erosion areas, greater integrity of mangroves and other coastal ecosystems, and enhanced safety and livelihoods of coastal communities.	
4.2.6	Promote awareness campaigns on mangrove forests among coastal communities, as well as environmental education through the National Ocean Literacy Programme and the Marine Research and Education Centres.	- MALFF - MoTE - Municipal Authorities - Governance partners to be identified (Articulate with Pillar 2: 2.1 and 2.2)	- Number of campaigns and awareness-raising actions carried out per year on the ecological, climatic and socio-economic importance of mangrove forests (community sessions, local radio, schools, public events), including activities under the National Ocean Literacy Programme and Marine Research and Education Centres. - Number of people reached and percentage of target groups engaged (fishers, women, youth, community leaders, local authorities, tourism operators) in awareness and environmental education actions on mangroves. - Number of educational materials and pedagogical resources produced and used (manuals, posters, videos, training modules, digital content, practical activities in marine education centres) specifically dedicated to mangrove forests and their conservation.	- Increased knowledge and understanding among coastal communities and the public of the value of mangroves as nurseries for species, natural barriers against erosion and storms, carbon sinks and pollutant filters. - Progressive change in attitudes and behaviours towards mangroves, with reduction of harmful practices (illegal cutting, land reclamation, dumping, burning) and stronger community support for protection and reforestation initiatives. - Effective integration of mangrove forests into formal and non-formal environmental education through the National Ocean Literacy Programme and Marine Research and Education Centres, strengthening the social foundation for conservation policies, coastal resilience and a sustainable Blue Economy.	MEDIUM TERM
4.2.7	Apply for membership of the Global Mangrove Alliance (GMA).	- PM/LMBO - MALFF - MoTE - MFAC	- Number of preparatory documents produced for the GMA application, including policy background note, national mangrove profile, proposed commitments and interministerial validation. - Formal submission of the application for GMA membership	- Timor-Leste integrated as a member of the Global Mangrove Alliance, strengthening international recognition of its commitment to mangrove protection and restoration. - Enhanced access to knowledge, best practices, technical networks and potential international funding mechanisms for mangrove conservation, restoration and sustainable use.	MEDIUM TERM

and number of official interactions with the Alliance secretariat/coordination until a decision on admission.
 - Status of the application (accepted, under review, rejected) and, if accepted, number of GMA initiatives, meetings or working groups in which Timor-Leste participates per year.

- Greater national capacity to implement mangrove policies aligned with global standards and initiatives, contributing to biodiversity, climate (blue carbon) and coastal resilience objectives.

4.3 SEAWEED AND SEAGRASS

STRATEGIC OBJECTIVES

- Promote research, scientific study and education on seaweed within the framework of the Timor-Leste Biodiversity Survey and Study Programmes and the National Ocean Literacy Programme.
- Protect, conserve and restore seaweed habitats.
- Establish specific regulations for the sustainable management of seaweed, including sustainable harvesting practices.
- Develop partnerships in the areas of innovation and technology for the sustainable production and cultivation of seaweed, also with the objective of economic diversification.
- Contribute to climate change mitigation and its impacts through the conservation of seaweed.
- Promote research, scientific study and education on seagrass within the framework of the Timor-Leste Biodiversity Survey and Study Programmes and the National Ocean Literacy Programme.
- Combat the direct destruction of seagrass habitats associated with unsustainable urban and industrial coastal development, as well as certain fishing methods (trawling, use of explosives and chemicals) that cause direct physical damage to seagrass meadows.
- Address coastal water pollution resulting from inadequate domestic wastewater treatment, disposal of untreated industrial liquid and solid waste, and runoff caused by deforestation for plantation purposes.
- Contribute to climate change mitigation and its impacts through the conservation of seagrass.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
4.3.1	Establish protected areas that include seaweed habitats, based on scientific evidence and surveys conducted.	- MALFF - Biodiversity Survey and Study Mechanism (Articulate with Pillar 3: 3.2)	- Number of new marine protected areas proposed and/or established and percentage of the national marine area covered by an official protection category, based on scientific surveys conducted (biodiversity, seaweed, seagrass, reefs, mangroves, etc.).	- Ecologically representative and science-based national network of marine protected areas, covering priority habitats and species (including seaweed and seagrass) and contributing to biodiversity conservation objectives.	MEDIUM TERM

			<ul style="list-style-type: none"> - Number of scientific studies, maps and survey reports used as the basis for the delimitation of marine protected areas and the definition of their use zones (core zones, buffer zones, sustainable use zones). - Number of marine protected areas with an approved and implemented management plan, including specific measures for sensitive habitats (seaweed, seagrass, coral reefs, mangroves) and mechanisms for community participation. 	<ul style="list-style-type: none"> - Improved protection and recovery of critical marine and coastal ecosystems, reducing degradation of reefs, mangroves, seagrass meadows and seaweed areas, and increasing resilience to climate change impacts. - Greater legal certainty and management effectiveness of marine protected areas, with implemented management plans, strengthened enforcement and active involvement of coastal communities, also promoting opportunities for sustainable use and economic diversification (sustainable fisheries, ecotourism, seaweed cultivation). 	
4.3.2	Through protected areas, regulate harvesting and harvesting seasons to prevent overexploitation of seaweed.	<ul style="list-style-type: none"> - MALFF - Timorese lead institution for the Survey and Study process (to be identified and formally established) <p>(Articulate with Pillar 3: 3.2)</p>	<ul style="list-style-type: none"> - Number of marine protected areas with specific seaweed harvesting rules established (quotas, permitted gear, exclusion zones, closed seasons/seasonal bans) and percentage of main seaweed occurrence areas covered by such rules. - Number of regulations, technical guidelines and licences issued for seaweed harvesting within protected areas, including sustainability criteria, monitoring requirements and sanctions for non-compliance. - Percentage of registered operators/harvesters complying with harvesting rules and seasons (based on inspections, field reports and participatory monitoring). - Number of infringements detected and sanctioned per reporting period. 	<ul style="list-style-type: none"> - Reduced risk of seaweed overexploitation due to scientifically defined harvesting seasons, extraction limits and protection zones, allowing natural regeneration of seaweed beds. - More sustainable and formalised seaweed harvesting activities, with clear rules, licensed operators and greater economic predictability for communities dependent on this activity. - Improved ecological condition of seaweed habitats within protected areas, ensuring the maintenance of their ecological functions (habitat provision, blue carbon, coastal protection) and contributing to marine ecosystem resilience. 	MEDIUM TERM
4.3.3	Build the capacity of and incentivise local communities to cultivate seaweed through aquaculture, thereby also safeguarding wild seaweed populations.	<ul style="list-style-type: none"> - MALFF - MoCI 	<ul style="list-style-type: none"> - Number of coastal communities supported in seaweed aquaculture projects (including pilot projects and scaled-up initiatives). - Number of cultivation units installed/operational (seaweed farms, cultivation lines, experimental plots). - Number of people trained and actively involved in seaweed cultivation (technical training, small business management, environmental good practices). - Annual volume of aquaculture seaweed production (tonnes/year) and percentage reduction in dependence on harvesting wild populations within supported communities. 	<ul style="list-style-type: none"> - Coastal communities equipped to produce seaweed sustainably, with increased income and employment opportunities linked to aquaculture. - Reduced pressure on wild seaweed populations, due to supply generated through cultivation projects, contributing to the conservation of natural habitats and maintenance of ecological functions (habitat provision, blue carbon). - Development of a more structured and resilient seaweed value chain, supporting local economic diversification (food, 	MEDIUM TERM

				cosmetics, agricultural products, etc.) and aligning with the objectives of a sustainable Blue Economy.	
4.3.4	Promote education and vocational training for entrepreneurs (fishers) and local communities on sustainable practices in this sector.	- MALFF - MoCI	<ul style="list-style-type: none"> - Number of training and capacity-building actions carried out per year on sustainable harvesting, cultivation, processing and business practices for seaweed, and number of participants reached (fishers, local entrepreneurs, cooperatives, young entrepreneurs). - Number of companies, cooperatives or community initiatives supported in the seaweed value chain (production, processing, marketing) and total amount of financial incentives granted (grants, concessional loans, tax benefits). - Number of new products and business lines developed based on seaweed (food products, fertilisers, bioplastics, renewable fuels) and percentage increase in economic value generated by the seaweed sector compared to the baseline year. 	<ul style="list-style-type: none"> - Entrepreneurs, fishers and local communities with enhanced technical and managerial capacity to operate sustainably in seaweed production, harvesting and processing, reducing environmental impacts and improving product quality. - Growth of a diversified and sustainable national seaweed industry, supported by financial incentives and innovation, generating increased employment and income in coastal communities and contributing more significantly to the Blue Economy. - Greater substitution of conventional products with seaweed-based solutions (organic fertilisers, bioplastics, renewable fuels), contributing to climate change mitigation, pollution reduction and more efficient use of natural resources. 	MEDIUM TERM
4.3.5	Foster the growth of this industry, including through financial incentives, contributing to the food, agricultural (fertilisers), bioplastics and renewable fuels sectors.	- MALFF - MoCI	<ul style="list-style-type: none"> - Number of companies, cooperatives or community initiatives supported in the seaweed value chain (production, processing, research and development, marketing) and total amount of financial incentives granted (grants, credit lines, tax benefits). - Number of commercial products developed or improved based on seaweed (food products, animal feed, fertilisers, bioplastics, biofuels) and percentage increase in sector turnover compared to the baseline year. - Number of partnerships established with research institutions and companies (agreements, joint projects, incubators) focused on innovation and technology for industrial uses of seaweed. - Number of mechanisms created to facilitate the marketing and export of seaweed, including the identification and removal of barriers. - Number/percentage of seaweed produced and processed for export. 	<ul style="list-style-type: none"> - Growing and more structured seaweed industrial sector, with an increased number of formal operators, investments and productive capacity across food, agricultural and energy value chains. - Strengthened economic diversification in coastal areas, with job creation and new income sources linked to the transformation of seaweed into higher value-added products. - Increased supply of more sustainable products (natural fertilisers, bioplastics, renewable fuels), contributing to reduced dependence on fossil-based inputs and to climate change mitigation within the framework of the Blue Economy. - Production of a guidance manual for the marketing and export of seaweed. 	MEDIUM TERM
4.3.6	Legislate, enforce and apply sanctions against	- MALFF - MoCI	- Number of legal instruments and regulations approved or revised incorporating:	- Strengthened legal and regulatory framework for the protection of seagrass	MEDIUM TERM

	<p>unsustainable urban and industrial coastal development, as well as certain fishing methods (trawling, use of explosives and chemicals) that cause direct physical damage to seagrass meadows.</p>	<ul style="list-style-type: none"> - MoSA - MPSI - Other relevant ministries in the field of enforcement, including Mol 	<p>specific rules for the protection of seagrass meadows in the licensing of urban and industrial coastal projects; clear prohibitions/restrictions on trawling, explosives and chemicals in areas with seagrass.</p> <ul style="list-style-type: none"> - Number of enforcement actions carried out per year (environmental inspections, site inspections of coastal works, maritime patrols, joint operations) and number of infringements detected related to: unsustainable coastal development; use of trawling, explosives and chemicals in seagrass areas. - Number of sanctioning procedures initiated and concluded (administrative offences and/or environmental crimes) and percentage of cases resulting in effective sanctions (fines, suspension of works, seizure of gear, suspension of licences). 	<p>meadows, integrating stringent environmental criteria into coastal development and prohibiting destructive fishing practices in sensitive areas.</p> <ul style="list-style-type: none"> - Significant reduction in direct physical damage to seagrass meadows through enhanced enforcement and effective application of sanctions, contributing to the preservation of habitat integrity, nursery functions and blue carbon capacity. - Greater accountability of developers and coastal users, discouraging unsustainable projects and practices, and promoting coastal planning and fisheries management compatible with the conservation of seagrass and associated marine biodiversity. 	
4.3.7	<p>Implement, in a holistic and integrated manner, measures to combat coastal water pollution resulting from inadequate domestic wastewater treatment, discharge of untreated industrial liquid and solid waste, and runoff caused by deforestation for plantation purposes.</p>	<ul style="list-style-type: none"> - MALFF - MoCI - MoSA - MPSI - Other relevant ministries in the field of enforcement, including Mol 	<ul style="list-style-type: none"> - Number of coastal pollution control instruments and measures implemented (wastewater treatment systems/infrastructure, regulations and licences for industrial effluents, standards for solid waste management, erosion and runoff control measures in deforested areas). - Number of pollution hotspots identified and monitored (sewage discharges, industrial effluents, waste dumping sites, areas of intense runoff) and percentage of such hotspots with mitigation plans under implementation. - Average percentage reduction in pollution indicators in priority coastal waters (for example, nutrient loads, faecal coliforms, suspended solids, floating debris) compared to the baseline, particularly in areas with seagrass meadows. 	<ul style="list-style-type: none"> - Significant reduction of land-based pollution sources affecting coastal waters, through improved wastewater treatment, control of industrial effluents and solid waste management. - Measurable improvement in water quality in sensitive coastal areas, particularly where seagrass meadows and other critical habitats are present, strengthening their ecological health and blue carbon sequestration capacity. - More integrated coastal management across sectors (environment, water, sanitation, agriculture, forestry, industry and municipalities), contributing to reduced degradation of marine ecosystems, protection of public health and strengthened resilience of coastal communities. 	MEDIUM TERM
4.3.8	<p>Deepen scientific studies on seagrass and, in coordination with the blue carbon programme (below), identify financing and value-generation solutions for this</p>	<ul style="list-style-type: none"> - MALFF - MoCI - MoSA - MPSI - MHESC - MoF - University 	<ul style="list-style-type: none"> - Number of scientific studies, surveys and research and development projects conducted on seagrass, including mapping, ecology, ecosystem services and blue carbon quantification, and number of publications/technical reports produced. - Number of funding proposals and financing mechanisms mobilised (blue carbon projects, climate 	<ul style="list-style-type: none"> - Robust national scientific baseline on seagrass meadows, including their role in biodiversity, coastal protection, water quality and blue carbon sequestration, capable of underpinning public policy, spatial planning and management of the 	MEDIUM TERM

sector, with the involvement of coastal communities.	<ul style="list-style-type: none"> - Biodiversity Survey and Study Mechanism - Governance partners 	<p>funds, coastal conservation, payments for ecosystem services) specifically related to seagrass meadows, and total amount of funding secured.</p> <ul style="list-style-type: none"> - Number of coastal communities involved in seagrass projects linked to blue carbon (participatory monitoring, conservation, restoration, pilot payment-for-ecosystem-services schemes) and number of people trained on the role of seagrass in biodiversity, coastal protection and carbon sequestration. 	<p>national maritime domain, as well as climate finance projects.</p> <ul style="list-style-type: none"> - Effective integration of seagrass into the blue carbon programme, with projects designed to access climate finance and market-based mechanisms (for example, blue carbon credits), contributing to the conservation and restoration of these habitats. - Coastal communities engaged and benefiting from seagrass and blue carbon initiatives, through participation in monitoring and conservation, access to training and potential income streams associated with funded projects, strengthening sustainable livelihoods and local support for the protection of seagrass meadows. 	
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4.4 CETACEANS, TURTLES, SHARKS, DUGONGS AND OTHER MARINE SPECIES

- STRATEGIC OBJECTIVES**
- **Promote conservation and scientific research on cetacean populations and other marine species.**
 - **Develop a regulatory framework and ethical guidelines for these marine species.**
 - **Develop community-based tourism that generates local benefits both for people and for marine species.**
 - **Develop sustainable infrastructure and strengthen capacities for species observation.**
 - **Educate and raise awareness about ethical interactions with wildlife.**
 - **Promote international collaboration and seek funding sources for the management and conservation of this unique biodiversity.**

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
4.4.1	Give priority to and support scientific research on populations of cetaceans and other key marine species, their behaviour and migration patterns, and biologically important areas.	<ul style="list-style-type: none"> - LMBO - MALFF - MoTE - MHESC - Marine Biodiversity Survey and Study Mechanism - Other Partners to be identified 	<ul style="list-style-type: none"> - Number of scientific studies, surveys and research cruises conducted per year on cetaceans, turtles, sharks, dugongs and other key marine species (including photo-identification, acoustics, telemetry, etc.). - Number of species and populations with updated basic ecological information (relative abundance, aggregation areas, migration routes, feeding/breeding grounds) and 	<ul style="list-style-type: none"> - Robust and up-to-date scientific baseline on the populations and ecology of cetaceans, turtles, sharks, dugongs and other marine species in Timor-Leste, including migration patterns and biologically important areas, directly supporting management and conservation. - Clear identification of critical areas and periods for these species (for example, 	MEDIUM TERM

			percentage of priority knowledge gaps identified in the national strategy that have been addressed. - Number of biologically important areas identified and mapped (breeding areas, feeding grounds, migration routes, ecological corridors) and percentage of such areas integrated or proposed for integration into spatial planning instruments (protected areas, exclusion zones for certain fishing gear, recommended navigation routes, etc.).	migratory corridors, feeding and breeding hotspots), enabling prioritisation of spatial and temporal protection measures (marine protected areas, seasonal closures, noise mitigation, maritime traffic management). - Enhanced national marine research capacity, with strengthened partnerships between Timorese and international institutions, and increased use of scientific results in public policy, management plans and reporting to international conventions (for example, CITES, CMS, CBD).	
4.4.2	Create marine protected areas and strengthen existing ones to safeguard critical habitats.	- Blue Economy Working Group - Governance partners (Articulate with Pillar 3: 3.2)	- Number of new or revised marine protected areas (MPAs) that include critical habitats for cetaceans, turtles, sharks, dugongs and other protected species, and percentage of those critical habitats covered by an official protection category. - Number of regulations and management plans approved and in force within MPAs defining: permitted activities and interactions with protected species (watching, fishing, tourism, navigation); vessel speed limits; maximum numbers of vessels and people; minimum safety requirements (minimum distances, emergency protocols). - Level of compliance with MPA rules measured by number of enforcement actions carried out per year, percentage of licensed operators complying with speed limits, capacity limits and interaction rules. - Number of infringements detected and sanctioned.	- More representative and functional MPA network, covering a significant proportion of critical habitats for cetaceans, turtles, sharks, dugongs and other marine species. - Reduced disturbance and risks to protected species within MPAs, through clear rules on activity types, minimum distances, vessel speeds, maximum visitor loads and safety requirements, contributing to fewer vessel collisions, reduced stress and improved reproductive success. - More effective and better enforced MPA management, with operators and coastal communities engaged and compliant, resulting in better conserved habitats, higher-quality ecotourism experiences and a strengthened image of Timor-Leste as a conservation and responsible tourism destination.	MEDIUM TERM
4.4.3	Support the establishment of a marine protection and enforcement agency.	- Blue Economy Working Group - PCM - MoI - MoD - Governance partners	- Number of formal acts approved for the creation and structuring of the agency (decree-law, statutes, internal regulations) and number of operational units established (headquarters, municipal branches, coastal bases). - Number of human, financial and logistical resources allocated to the agency (staff recruited and trained, annual budget, vessels,	- National marine protection agency legally established, operational and adequately resourced, with effective presence in key coastal and marine areas of Timor-Leste. - Significant strengthening of marine law enforcement, reflected in increased control operations, improved deterrence of illegal practices and higher compliance with	MEDIUM TERM

			<p>vehicles, surveillance and enforcement equipment) and annual budget execution rate (%).</p> <ul style="list-style-type: none"> - Number of enforcement and compliance actions carried out per year (patrols, inspections, joint operations) and number of infringements detected and concluded with sanctioning or corrective measures, disaggregated by type (illegal fishing, disturbance of protected species, pollution, non-compliance within protected areas). 	<p>regulations protecting cetaceans, turtles, sharks, dugongs and other marine assets.</p> <ul style="list-style-type: none"> - Measurable improvement in the conservation status of marine ecosystems and species, due to reduced illegal activities (destructive fishing, capture and trade of protected species, pollution, infringements within marine protected areas) and enhanced coordination with other authorities, coastal communities and conservation programmes. 	
4.4.4	<p>Implement monitoring programmes to assess tourism impacts as a feedback mechanism to ensure the effectiveness of policies.</p>	- MoTE	<ul style="list-style-type: none"> - Number of marine tourism sites with monitoring programmes implemented (cetacean watching, diving, snorkelling, boat tours, turtle nesting beaches) and frequency of data collection (monthly, seasonal, annual). - Number and type of impact indicators regularly monitored (for example, number of vessels/visits per day, number of approaches to cetaceans/turtles outside permitted norms, number of strandings/collisions reported, water quality, habitat condition, community perception) and existence of annual assessment reports produced and disseminated. - Number of management and policy adjustments made based on monitoring results (revision of visitor limits, modification of routes/timetables, creation of exclusion zones, strengthened enforcement, new operator rules) and average time between identification of problems and adoption of corrective measures. 	<ul style="list-style-type: none"> - Regular monitoring system for tourism impacts on cetaceans, turtles, sharks, dugongs and associated habitats, generating reliable data to detect early signs of excessive pressure or degradation. - Marine tourism policies and rules adaptively adjusted, using monitoring results to refine use limits, observation practices and operator requirements, ensuring more responsible and sustainable tourism. - Progressive reduction of negative tourism impacts on sensitive species and ecosystems, while maintaining or improving the quality of the visitor experience and sustaining community support for conservation. 	MEDIUM TERM
4.4.5	<p>Establish an authorisation or certification system for operators that comply with international standards (for example, the IUCN and IWC guidelines for whale watching tourism).</p>	- MoTE	<ul style="list-style-type: none"> - Number of registered marine tourism operators (cetacean watching, boat tours, diving, snorkelling, visits to turtle areas, etc.) and percentage of those operators covered by an authorisation/certification system. - Number of certified or authorised operators complying with international standards (IUCN, IWC or equivalent national standards) and number of audits/inspections conducted per year to verify compliance with safety requirements, minimum approach distances 	<ul style="list-style-type: none"> - Network of formalised and certified marine tourism operators complying with safety standards and impact minimisation requirements for cetaceans, turtles, sharks, dugongs and other sensitive marine species. - Decrease in disturbances and risks to protected species associated with tourism activities, due to the application of international standards and a regular audit and enforcement system linked to certification. 	SHORT TERM

			<p>to species, speed limits, best-practice guidelines for wildlife interaction, guide training, etc.</p> <ul style="list-style-type: none"> - Number of infringements or incidents recorded involving certified versus non-certified operators (disturbance of cetaceans/turtles/dugongs, collisions, breach of minimum approach distances, overcrowding), and annual percentage reduction in incidents per certified operator. 	<ul style="list-style-type: none"> - Strengthened reputation of Timor-Leste as a responsible and high-quality marine tourism destination, increasing confidence among tourists and international partners and contributing to sustainable economic benefits for coastal communities. 	
4.4.6	<p>Prohibit harmful practices (for example, feeding activities, touching, overcrowding, harming, capture and pursuit / harassment of protected species).</p>	<ul style="list-style-type: none"> - Blue Economy Working Group - PCM - MoI - MoD 	<ul style="list-style-type: none"> - Number of legal instruments and regulations approved or revised that explicitly prohibit feeding, touching, overcrowding of vessels, capture, harm and pursuit/harassment of cetaceans, turtles, sharks, dugongs and other protected species, and the scope of such prohibitions (types of activities and areas covered). - Number of enforcement actions carried out per year specifically aimed at controlling these practices (patrols, inspections at sea and on land, operator controls) and number of incident reports/citations recorded for breaches of the prohibitions. - Annual percentage trend of reduction in recorded incidents of feeding, touching, pursuit/harassment, overcrowding, capture or harm to protected species (based on enforcement reports, stranding/injury records, community reports). 	<ul style="list-style-type: none"> - Clear and strengthened legal framework for the protection of protected marine species, with explicit prohibitions on harmful practices and rules known to tourism operators, fishers and the public. - Significant reduction in the frequency of disturbing or harmful interactions (artificial feeding, touching, vessel pursuit/harassment, intentional capture or harm) affecting cetaceans, turtles, sharks, dugongs and other sensitive marine species in Timor-Leste. - Improved welfare and natural behaviour of protected species, reflected in reduced stress and injuries associated with human activities, and greater compatibility between conservation, tourism and sustainable use of the sea. 	SHORT TERM
4.4.7	<p>Train and employ local communities as guides, researchers and hospitality staff, with emphasis on training in responsible wildlife tourism practices.</p>	<ul style="list-style-type: none"> - VPM I/Training centres - MoTE - MALFF - Governance partners 	<ul style="list-style-type: none"> - Number of people from coastal communities trained per year (tour guides, community monitors/field researchers, hospitality and vessel staff). - Number of trainees engaged in paid activities linked to wildlife tourism (employment or contracts as guides, crew members, accommodation/restaurant staff, research assistants) and percentage of job placement within 12 months after training. - Number of specific training actions on wildlife tourism best practices carried out per year (responsible interaction with cetaceans, turtles, sharks, dugongs; group management; 	<ul style="list-style-type: none"> - Coastal communities better equipped and more actively involved in conservation and marine tourism, with increased knowledge of protected species and responsible wildlife observation practices. - Growth in qualified local employment within the marine tourism value chain, contributing to improved incomes and poverty reduction in coastal areas. - Improved quality and reduced impact of wildlife tourism activities, due to the presence of locally trained guides and staff in international standards and environmental 	SHORT TERM

			safety; environmental interpretation) and percentage of tourism operators employing trained local staff.	education, strengthening Timor-Leste's image as a responsible ecotourism destination.	
4.4.8	Promote and incentivise community-owned ecotourism initiatives to ensure that economic benefits remain at the local level.	- MoTE - MoCI	- Number of community-owned ecotourism initiatives created or supported (community lodges, cetacean/turtle watching tours, coastal trails, interpretation centres, etc.) and number of coastal communities involved. - Annual revenue generated by community ecotourism initiatives (USD/year) and percentage of that revenue retained within the community (distributed among households, cooperatives, community funds). - Number of direct and indirect jobs created in community ecotourism (guides, boat operators, accommodation and catering staff, handicrafts, transport) and percentage of those positions held by residents, including women and youth.	- Growing network of community-managed ecotourism initiatives focused on responsible observation of cetaceans, turtles, sharks, dugongs and other natural assets, distributed across key coastal areas of Timor-Leste. - Increased economic benefits retained within local communities, strengthening alternative livelihoods to overexploitation of marine resources and creating direct incentives to protect species and habitats. - Greater social support for marine wildlife conservation, as communities recognise the economic value of community-based ecotourism and become active partners in sustainable territorial management and in ensuring high-quality tourism experiences.	SHORT TERM
4.4.9	Promote and incentivise tourism operators that adopt sustainable practices and target environmentally conscious travellers through global sustainability certifications (for example, Green Fins certification).	- MoTE	- Number of marine tourism operators assessed/applying for sustainability certifications (Green Fins or equivalent) per year, and number/percentage of operators obtaining or renewing active certification. - Number of training actions, campaigns and communication materials produced on sustainable marine wildlife tourism and certifications (sessions with operators, guides, hotels, online platforms), and number of operators reached. - Percentage of tourism operations (boat trips, dives, tours) conducted by certified operators in key marine tourism areas, and annual percentage reduction in environmental impact indicators associated with these operators (for example, anchoring on reefs, waste generation, inappropriate contact with fauna).	- Significant increase in the number and market share of certified sustainable marine tourism operators aligned with international standards (for example, Green Fins), applying recognised best practices. - Measurable reduction in environmental impacts of marine tourism activities, due to the adoption of sustainable practices (waste management, no anchoring on reefs, minimum approach distances to wildlife, group size limits, staff training). - Positioning of Timor-Leste as a sustainable marine tourism destination for environmentally conscious travellers, increasing attractiveness in higher value ecotourism markets and strengthening economic benefits for communities that support conservation.	SHORT TERM
4.4.10	Develop cultural programmes that link traditional knowledge to conservation.	- MoTE - MHESC - SEAC	- Number of cultural programmes and initiatives created or supported per year (coastal festivals, cultural routes, exhibitions, community theatre, local radio, educational materials) integrating traditional knowledge	- Traditional knowledge about the sea and marine species of Timor-Leste documented, valued and integrated into conservation actions, strengthening cultural identity and a sense of community stewardship over	SHORT TERM

			<p>about cetaceans, turtles, sharks, dugongs and other marine species.</p> <ul style="list-style-type: none"> - Number of traditional knowledge holders and community leaders involved. - Number of schools, youth groups and tourism operators participating in or using content from these cultural programmes. 	<p>cetaceans, turtles, sharks, dugongs and other marine life.</p> <ul style="list-style-type: none"> - Greater engagement and leadership of coastal communities in the protection of marine wildlife. 	
4.4.11	<p>Invest in low-impact tourism infrastructure (for example, eco-friendly boats, land-based observation points, conservation or rehabilitation centres).</p>	<ul style="list-style-type: none"> - MoTE 	<ul style="list-style-type: none"> - Number of low-impact tourism infrastructures installed or upgraded (eco-friendly boats, land-based observation points, Marine Research and Education Centres, marine wildlife rehabilitation centres) and number of coastal/marine sites covered. - Total annual investment in low-impact infrastructure (USD/year, by type of infrastructure and by municipality) and percentage of this investment compared to total marine tourism investment. - Number of visitors using low-impact infrastructure per year. 	<ul style="list-style-type: none"> - Operational network of low-impact ecotourism infrastructure in key areas of occurrence of cetaceans, turtles, sharks, dugongs and other marine species, facilitating responsible wildlife observation and environmental education. - Reduction of physical and disturbance-related impacts associated with marine tourism, through the gradual replacement of more harmful practices and equipment. 	SHORT TERM
4.4.12	<p>Develop partnerships with international experts for the transfer of knowledge on best practices.</p>	<ul style="list-style-type: none"> - MoTE - MALFF - Blue Economy Working Group - Governance partners 	<ul style="list-style-type: none"> - Number of formal partnerships established per year with international institutions and experts (universities, NGOs, international organisations, specialist networks on cetaceans, turtles, sharks, dugongs and sustainable tourism) and number of active cooperation agreements/protocols. - Number of capacity-building actions carried out with international support (workshops, technical training, joint field missions, internships, exchanges) and number of national technicians, rangers, researchers, guides and policymakers trained. - Number of international tools, standards or best practices adapted and applied in Timor-Leste (whale watching guidelines, stranding response protocols, monitoring methodologies, MPA management plans, bycatch procedures) and number of joint research/conservation projects under implementation. 	<ul style="list-style-type: none"> - Strengthened national technical capacity in the management and conservation of cetaceans, turtles, sharks, dugongs and other marine species, with Timorese teams applying updated and internationally recognised methodologies. - Integration of international best practices into policies, regulations and field operations, improving the quality of enforcement, wildlife tourism, research and marine protected area management. - Increased visibility and integration of Timor-Leste in regional and global marine conservation networks and initiatives, facilitating access to funding, technical support and long-term cooperation for the protection of marine species and habitats. 	SHORT TERM
4.4.13	<p>Invest in the establishment of a marine wildlife rescue</p>	<ul style="list-style-type: none"> - MoTE 	<ul style="list-style-type: none"> - Infrastructure and installed capacity for marine rescue and rehabilitation. 	<ul style="list-style-type: none"> - Functional and well-equipped national marine rescue and rehabilitation centre, with capacity to receive, treat and monitor 	MEDIUM TERM

<p>and rehabilitation centre, particularly for protected species.</p>		<ul style="list-style-type: none"> - Installed capacity: number of tanks/pools and estimated maximum number of animals that can be accommodated simultaneously, by group (cetaceans, turtles, dugongs, other species). - Number of marine animals received per year, by species/group (cetaceans, turtles, sharks/rays, dugongs, others). - Percentage of animals successfully rehabilitated and released back into the wild (rehabilitation success rate). - Operational response network in place. - Number of calls/incidents handled by the response team (strandings, entanglements, injuries, weakened animals) and average response time from alert to intervention. - Number of technical protocols and standard operating procedures (SOPs) implemented (triage, veterinary care, release, data recording) and number of annual training sessions for staff and volunteers. 	<p>cetaceans, turtles, dugongs and other protected species at risk in Timor-Leste.</p> <ul style="list-style-type: none"> - Significant improvement in survival rates of marine animals in distress, reflected in increasing rehabilitation and release rates, while also generating valuable data on threats and pressures. - Structured system for responding to strandings and marine emergencies, coordinated with coastal communities, fishers, tourism operators and authorities, enhancing public awareness and reinforcing Timor-Leste's image as a country committed to marine wildlife welfare and conservation. 	
<p>4.4.14 Invest in the review and development of a long-term crocodile management plan, with particular emphasis on strategies for managing human-wildlife conflict.</p>	<p>- MoTE</p>	<ul style="list-style-type: none"> - Planning and legal framework supported by the number of studies, community consultations and risk assessments carried out to inform the crocodile management plan. - Existence and status of the management plan. - Number of incidents recorded per year involving crocodiles and people/property (attacks, high-risk sightings, livestock predation), disaggregated by suco. - Annual percentage trend in serious incidents (fatalities and injuries) following the commencement of plan implementation. - Number of mitigation measures implemented (for example, fencing or designated safe bathing/washing areas, risk-zone signage, relocation of problematic crocodiles, rapid alert lines). - Number of awareness and training sessions conducted with communities and number of participants, focusing on safety, preventive behaviour and respect for the cultural values associated with crocodiles. 	<ul style="list-style-type: none"> - Updated, approved and operational long-term crocodile management plan integrating scientific knowledge and traditional practices, defining risk zones, response protocols, preventive measures and clear intervention rules. - Measurable reduction in serious human-crocodile conflicts, reflected in decreased fatalities and injuries and improved recording and handling of incidents, enhancing the safety of coastal and riverine communities. - Better informed, engaged and co-responsible communities in crocodile management, with increased adoption of safe practices, participation in monitoring and respect for the cultural and ecological significance of the species, contributing to more balanced coexistence between people and wildlife in Timor-Leste. 	<p>MEDIUM TERM</p>

4.4.15	Position Timor-Leste as a low-volume, high-quality destination of excellence for cetacean watching.	- MoTE	<ul style="list-style-type: none"> - Annual number of tourists participating in cetacean watching activities in Timor-Leste. - Total revenue generated from cetacean watching (USD/year) and average revenue per visitor in this segment (indicator of “low volume, high value”). - Number of cetacean watching operators certified or authorised in accordance with international standards. - Percentage of watching trips conducted by certified operators and annual number of incidents/infringements related to disturbance of cetaceans. - International recognition and visibility of the destination, measured by number of mentions/rankings of Timor-Leste in international ecotourism and whale watching guides, platforms and media. - Number of joint international promotion campaigns focused on “high-quality, low-impact whale watching” and number of international operators/travel partners including Timor-Leste in specialised itineraries. 	<ul style="list-style-type: none"> - Timor-Leste recognised regionally and internationally as a niche destination for high-quality, low-impact cetacean watching, particularly whales, attracting environmentally conscious travellers willing to pay more for responsible experiences. - Highly regulated, safe and sustainable cetacean watching product, with a limited number of well-trained and certified operators, low incident rates and strong protection of animal welfare and habitats. - Increased local economic value associated with whale watching without mass tourism, reflected in higher average revenue per visitor, greater benefits for coastal communities providing quality services and stronger alignment between tourism development and cetacean conservation in Timor-Leste. 	MEDIUM TERM
4.4.16	Establish partnerships with NGOs (for example, WWF, Whale and Dolphin Conservation) to secure conservation funding.	- MoTE	<ul style="list-style-type: none"> - Number of formal partnerships established with national and international NGOs specifically dedicated to the conservation of cetaceans, turtles, sharks, dugongs, crocodiles and other marine assets. - Annual amount of funding mobilised through partner NGOs and percentage of that funding implemented in Timor-Leste. - Number of conservation projects co-financed and implemented with NGOs (active per year) and number of concrete results achieved by those projects (for example, protected areas created/strengthened, campaigns conducted, animals rehabilitated, communities supported). 	<ul style="list-style-type: none"> - Stable network of partnerships with leading marine conservation NGOs, ensuring continuous technical and financial support for priority actions in Timor-Leste. - Significant and predictable increase in financial resources available for conservation, enabling the implementation or expansion of species and habitat protection programmes beyond what the national budget alone could cover. - Greater impact and visibility of Timor-Leste’s conservation efforts, through joint projects delivering tangible results on the ground and strengthening the country’s international recognition as a credible partner in marine conservation. 	SHORT TERM
4.4.17	Seek to obtain UNESCO or Ramsar recognition for key marine areas.	<ul style="list-style-type: none"> - PM/LMBO - VPM I/ MoTE - MALFF - Governance partners 	<ul style="list-style-type: none"> - Selection of priority sites, based on existing designations and recognised ecological value, for nomination as UNESCO Natural World Heritage sites (for example, “Nino Konis 	<ul style="list-style-type: none"> - Formal international recognition of one or more marine areas of Timor-Leste as: a UNESCO site (Natural World Heritage and/or Biosphere Reserve), and/or 	SHORT TERM

			<p>Santana Marine and Coastal Landscape and/or Ataúro”) or Biosphere Reserves.</p> <ul style="list-style-type: none"> - Identification of high-value coastal wetlands with mangroves as potential Ramsar sites. - Strengthened technical and governance basis for the preparation of: inventory and clear delineation of natural values; detailed maps of reefs, mangroves and high-biodiversity areas (cetaceans, turtles, sharks, dugongs); data on rare species and new discoveries already recorded in Timor-Leste; conservation status and threats. - Updated management plans in place. - Marine spatial planning under development, including the target of protecting 30% of marine areas by 2030. - Community involvement and traditional instruments demonstrated as community-based management models valued by UNESCO and Ramsar. 	<p>a Ramsar Site (wetland of international importance), strengthening their status as areas of global conservation significance.</p> <ul style="list-style-type: none"> - Enhanced protection and effective management of recognised areas associated with UNESCO/Ramsar designation, reflected in: <ul style="list-style-type: none"> increased donor-supported projects and international programme engagement; growth of higher value-added nature and cultural tourism; economic and reputational benefits for Timor-Leste and for the local communities acting as custodians of these areas. 	
4.4.18	<p>Establish a Dugong Park and Whale Shark (<i>Rhincodon typus</i>) and Manta Ray (<i>Manta birostris</i>) Protection Areas in Batugadé to conserve the species and support community-based ecotourism.</p>	<ul style="list-style-type: none"> - PM/LMBO - MoTE - MALFF - Governance partners 	<ul style="list-style-type: none"> - Legally protected marine area established (hectares of Dugong Park and officially delimited and decreed protection zones for whale sharks and manta rays). - Abundance/occurrence of target species. - Number of sightings of dugongs, whale sharks and manta rays per unit of effort (per monitoring/tourism trip). - Community participation and benefits (number of local community members involved in ecotourism activities, guiding, monitoring, enforcement; and/or percentage of ecotourism income allocated to Batugadé community groups). 	<ul style="list-style-type: none"> - Conservation of target species and stabilisation or increase of dugong populations (north coast of the country and around Ataúro), whale sharks and manta rays in the Batugadé area, with reduced threats (bycatch, hunting, disturbance). - Development of community-based ecotourism in relevant areas. - Creation and operation of ecotourism products (e.g., observation tours, interpretation centres) managed or co-managed by the community, generating new local income streams. - Strengthened coastal community governance, particularly in Batugadé, with greater involvement in park management (local committees, user rules, participatory enforcement), improving compliance and protection of marine habitats. 	MEDIUM TERM
PILLAR 5: COMBATING MARINE POLLUTION AND WASTE MANAGEMENT					
STRATEGIC OBJECTIVES					

- Fulfil international commitments and obligations to combat plastic pollution, including engagement in international negotiations on the topic, as well as participation in other conventions and international mechanisms under UNCLOS.
- Improve the implementation of MARPOL guidelines.
- Accede to international conventions and treaties aimed at protecting human health and the marine environment from harmful effects that may result from inadequate hazardous waste management, as well as preventing the spread of marine pollution, including through toxic plastic waste.
- Protect Timor-Leste's marine environment and marine ecosystems from marine pollution, including more immediate action needed in relation to marine plastics, including enforcement and sanctioning measures, through a holistic approach.
- Mobilise the engagement of international and national stakeholders, in close collaboration with the Government, including the private sector, non-governmental organisations (NGOs) and the Timorese population, to combat marine pollution and promote adaptive solutions for the reduction, recycling and reuse of polluting materials, particularly plastics.
- Strengthen national campaigns on the 3Rs Policy (Reduce, Recycle and Reuse), in association with the National Ocean Literacy Programme.
- Promote the development of a Circular Economy in the country, with particular attention to recycling, reuse and repair of plastic materials, supported by sectoral training and incentives for public and private stakeholders.
- Raise awareness on Health and Environment issues by improving the management of biological, organic and toxic waste, with particular emphasis on clinical waste management, screening and random testing for cases of contamination, allergies, infections or bacteria, in both terrestrial and marine environments.
- Promote action against marine pollution, particularly plastic waste, and promote improvements in plastic collection and waste management systems, including through the "Blue Fish" campaign.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
5.1	Actively monitor and participate in the negotiations of the Global Plastics Pollution Treaty, defending the principle of common but differentiated responsibilities and respective capabilities.	- PM/LMBO - VPM I/MoTE - MFAC	- Timor-Leste actively and diplomatically participates in the Treaty negotiations. - Number of formal sessions of the Intergovernmental Negotiating Committee (INC) in which Timor-Leste participates per year. - Number of official interventions delivered (oral statements, written submissions). - Structured national position on the Plastics Treaty. - Existence of a written national position approved by Government, including explicit reference to the principle of "Common but Differentiated Responsibilities" (CBDR) and to financial and technological support needs (SDG 17). - Number of technical proposals or co-proposals submitted by Timor-Leste (for example, on financing, capacity-building, technology transfer). - National integration and coordination on the sector.	- Stronger voice for Timor-Leste in global plastics debates - Timor-Leste recognised among Small Island Developing States (SIDS) and developing countries as an active advocate of the CBDR principle in the Plastics Treaty, aligned with SDG 14 (Life Below Water) and SDG 17 (Global Partnerships). - Improved access to finance, technology and capacity-building. - Inclusion in the final Treaty text of specific provisions for financial and technical support to developing countries and SIDS, which Timor-Leste can subsequently activate (waste management funds, recycling infrastructure, marine	MEDIUM TERM

			<ul style="list-style-type: none"> - Number of interministerial meetings and national consultations (with other ministries, private sector, NGOs, universities and communities) held to prepare negotiation mandates. - Number of partnerships/cooperation initiatives with like-minded countries (AOSIS, G77, CPLP, regional coastal States) to articulate common positions. 	<p>pollution monitoring, circular economy initiatives).</p> <ul style="list-style-type: none"> - Greater coherence between international commitments and national policy - Negotiation mandates used to update and strengthen national waste legislation, blue circular economy strategies and marine pollution policies, contributing to SDG 12 (Responsible Consumption and Production) and SDG 14 (Life Below Water). 	
5.2	<p>Monitor and implement international treaties and mechanisms in plastic pollution, as well as others related to the protection and preservation of the marine and terrestrial environment.</p>	<ul style="list-style-type: none"> - PM/LMBO - MoTE - MFAC 	<ul style="list-style-type: none"> - Accession to and ratification of treaties. - Number of relevant international conventions/treaties ratified and in force in Timor-Leste (e.g. relevant MARPOL annexes, hazardous waste conventions, the future Global Plastics Treaty, other marine agreements under UNCLOS). - Number of national laws/regulations approved to implement obligations arising from those treaties. - Percentage of mandatory national reports submitted on time to treaty secretariats (MARPOL, waste conventions, regional marine/coastal treaties). - Number of national action plans in force linked to those treaties (e.g. national marine litter/plastic action plan). - Number of annual inspections/enforcement actions related to treaty compliance (ports, vessels, industrial facilities, landfills, hospitals, etc.) and number of infringements detected and sanctioned. - Percentage of waste (including plastics and hazardous waste) managed in an environmentally sound manner compared to total waste generated. 	<ul style="list-style-type: none"> - Effective integration of international commitments into the national legal and institutional framework. - Timor-Leste with legislation and operational institutions reflecting treaty obligations on plastic pollution, hazardous waste and protection of marine and terrestrial environments, contributing to SDGs 14, 12 and 15. - Decrease in the quantity of marine litter/plastic in monitored coastal areas and reduction of mismanaged land-based waste, with positive impacts on ecosystems, fisheries, tourism and public health, contributing to SDG targets 14.1 and 12.5). - Greater access to international support and strengthening of the sustainable Blue Economy. - Timor-Leste better positioned to access finance, technology and capacity-building under these treaties (green funds, Plastics Treaty mechanisms, regional programmes), supporting investments in waste management, recycling, blue circular economy initiatives and the creation of green/blue jobs (SDGs 8, 14 and 17). 	MEDIUM TERM
5.3	<p>Accede to the Basel Convention on the Control of Transboundary Movements of</p>	<ul style="list-style-type: none"> - PM/LMBO - MoTE - PCM - MFAC 	<ul style="list-style-type: none"> - Number of formal accession steps completed. - Number of legal acts adopted prior to its entry into force for Timor-Leste. - Number and percentage of waste streams covered by the Basel Convention under effective control. 	<ul style="list-style-type: none"> - Increased control over transboundary movements of hazardous and plastic waste. - Number of illegal or non-compliant shipments identified and refused increases 	MEDIUM TERM

	<p>Hazardous Wastes and their Disposal, which, since its 2019 amendment, includes provisions on plastic waste.</p>		<ul style="list-style-type: none"> - Number of hazardous waste and plastic waste flows listed under the Convention with control procedures implemented (licensing, notifications). - Percentage (by weight) of hazardous and plastic waste exported/imported that undergo formal prior informed consent procedures, compared to the total volume of transboundary waste. - Percentage compliance with reporting and implementation obligations. - Percentage of mandatory national reports submitted on time to the Basel Convention Secretariat. - Percentage of targets under the national Basel implementation plan achieved (for example, annual targets for reducing exports of hazardous and plastic waste for disposal). 	<p>in the short term, followed by a reduction in the total number of irregular shipment attempts.</p> <ul style="list-style-type: none"> - Reduced dependence on waste exports and improved domestic waste management. - Percentage of hazardous and plastic waste managed in an environmentally sound manner within the country increases annually, in line with SDG targets 12.4 and 14.1. - Greater access to international cooperation and capacity-building. - Number of projects, trainings or technical/financial support initiatives received under the Basel Convention and related mechanisms (number of projects per year; total amount mobilised), strengthening the circular economy and the objectives of Timor-Leste's "Zero Plastic" Policy. 	
<p>5.4</p>	<p>Review relevant national legislation to explicitly refer to marine pollution and regulate accordingly.</p>	<ul style="list-style-type: none"> - PM/LMBO - MoTE - PCM - MFAC 	<ul style="list-style-type: none"> - Number of legal acts reviewed and updated that explicitly mention marine pollution and marine litter/plastic, including definitions, prohibitions and sanctions. - Percentage of the environmental legal framework that incorporates provisions on marine pollution, containing specific articles on marine pollution, compared to the total number of legal acts identified as relevant in the legislative review. - Number and percentage of regulatory instruments that include plastic waste prevention and control mechanisms (number of regulations that include: restrictions/bans on problematic plastics, waste management obligations in coastal zones/ports, marine litter monitoring requirements, in line with the recommendations of the plastics gap analysis; and percentage of those instruments that include clear enforcement and sanction mechanisms (licensing, inspections, fines), compared to the total number of regulations on waste/pollution). 	<ul style="list-style-type: none"> - National legislation explicitly recognises marine pollution as a form of environmental pollution and damage, facilitating enforcement, sanctions and preventive action, in complement to the Framework Environmental Law. - Legislative reforms address the gaps identified in the "Plastic Pollution Prevention in Timor-Leste: Gap Analysis...", bringing the country closer to the objectives of the "Zero Plastic" Policy and to future commitments under the Global Plastics Treaty. - Higher percentage of obligations under UNCLOS, MARPOL, the future Plastics Convention and the Basel Convention reflected in national legislation, contributing to the reduction of waste, particularly plastics, entering the marine environment and to a more sustainable Blue Economy. 	<p>MEDIUM TERM</p>

5.5	Regulate immediate measures to combat marine plastic pollution, including enforcement and sanctioning measures, as well as enhanced monitoring and surveillance of waters under national jurisdiction.	<ul style="list-style-type: none"> - MoTE - PCM - MFAC - Mol - MoD - Municipal Authorities 	<ul style="list-style-type: none"> - Number of annual inspections/enforcement actions in ports, beaches, vessels and coastal facilities specifically focused on marine litter/plastics. - Number of surveillance patrols/monitoring operations (maritime/aerial/community-based) carried out per year in waters under national jurisdiction. - Number of infringements detected for illegal disposal of plastic waste on land (coastal areas) and at sea. - Percentage of infringements sanctioned (through fines or other measures) compared to the total number of infringements identified. - Percentage reduction in the density of marine litter/plastics (number of items or kg of plastic per km of coastline / per km²) at monitoring points, compared to the baseline. - Number of active coastal/marine monitoring areas (reference beaches, bays, ports) with systematic data collection, aligned with SDG 14.1. 	<ul style="list-style-type: none"> - Visible reduction in the number of plastic items on priority beaches and coastal areas, with improved environmental quality and public perception (contributing to SDG 14.1 and to the Blue Economy linked to tourism). - Increased percentage compliance among users of coastal and marine space (fisheries, maritime transport, coastal establishments) due to strengthened enforcement and effective application of sanctions. - Operational national marine litter/plastic monitoring system enabling reporting under SDG 14, supporting international plastics treaties and guiding blue circular economy policies. 	MEDIUM TERM
5.6	Regulate also to include pollution in rivers and other national water resources.	<ul style="list-style-type: none"> - MoTE - PCM - Mol - MPSI - MOPW - Municipal Authorities 	<ul style="list-style-type: none"> - Number of annual inspections focused on litter/plastics in ports, beaches, rivers and lakes. - Number of active monitoring points along the coast and rivers (beaches, estuaries, river stretches). - Number of infringements detected for illegal disposal of plastic waste in coastal areas and waterways. - Percentage of infringements sanctioned compared to the total number of infringements identified. - Percentage reduction in litter/plastic density (items or kg per km of coastline / km of river) in monitored areas, compared to the baseline. - Percentage of municipalities with local regulations prohibiting litter disposal in rivers, streams and beaches. 	<ul style="list-style-type: none"> - Reduction of plastic flow from rivers to the sea, decreasing litter on beaches, in estuaries and in coastal areas. - Increased compliance with legislation on land and in water, with a deterrent effect on dumping in rivers, streams, lakes and at sea. - Operational integrated “mountain–river–sea” monitoring system, enabling better guidance of 3Rs/circular economy policies and reporting under the SDGs (particularly 6 and 14). 	MEDIUM TERM
5.7	Approve implementation, monitoring and evaluation mechanisms for adopted legal frameworks, regarding the importation of plastic materials, the Municipal Solid Waste Management System, and other regulations related to environmental impact assessment and environmental management plans.	<ul style="list-style-type: none"> - MoTE - PCM - MPSI - MOPW - Municipal Authorities 	<ul style="list-style-type: none"> - Mechanisms created and operational. - Number of legal acts/instruments approved that clearly define implementation, monitoring and evaluation mechanisms (e.g. enforcement regulations, manuals, EIA guidelines, standards for plastic imports and municipal solid waste management). - Percentage of key relevant legal frameworks (plastics, MSW, EIA, environmental management plans) that already have formally approved implementation and M&E mechanisms. - Number of annual inspections/control actions carried out regarding: <ul style="list-style-type: none"> • importation of plastic materials, 	<ul style="list-style-type: none"> - Effective enforcement of environmental legislation and increased compliance with regulations on plastic imports, municipal solid waste management and EIA, reducing the entry and mismanagement of waste (including plastics) in Timor-Leste. - Improved environmental quality and reduced pollution. - More transparent and evidence-based environmental governance. - Regular monitoring and evaluation system feeding into policy review, 	MEDIUM TERM

		<ul style="list-style-type: none"> • municipal solid waste management facilities, • compliance with EIA measures/environmental management plans. <p>- Percentage of projects subject to EIA that have environmental management plans implemented and monitored, compared to the total number of licensed projects.</p> <p>- Number of annual monitoring and evaluation reports produced (by sector: plastics, MSW, EIA/environmental plans).</p> <p>- Percentage of recommendations from those reports incorporated into subsequent revisions of policies, plans or regulations.</p>	improving institutional coordination and facilitating reporting under the SDGs and international treaties (e.g. future Plastics Treaty, Basel Convention).		
5.8	Revitalise and promote the National Zero Plastic Policy, including in rural areas, and implement and enforce Decree-Law No. 37/2020 on the “Distribution, Importation and Production of Plastic Bags, Packaging and Other Plastic Items”.	<ul style="list-style-type: none"> - MoTE - PCM - MoCI - Municipal Authorities 	<ul style="list-style-type: none"> - Enforcement of Decree-Law No. 37/2020 (inspection and compliance). - Number of annual inspections carried out (urban and rural) at points of sale, importers and producers of plastics covered by the decree-law. - Percentage of inspected establishments complying with the decree-law, compared to the total number of establishments inspected. - Reduction of single-use plastics in the economy. - Percentage reduction in the number or weight (tonnes/year) of single-use plastic bags, packaging and other items imported and/or produced, compared to the baseline year (prior to full enforcement). - Number and percentage of municipalities (including rural areas) with local regulations and/or active “Zero Plastic” programmes aligned with the decree-law. - Promotion and awareness (Zero Plastic Policy). - Number of campaigns, trainings or awareness actions carried out per year (schools, sucos, markets, churches, community radio) on “Zero Plastic” and sustainable alternatives. - Number of people reached and percentage of participants from rural areas among total participants in “Zero Plastic” policy actions. 	<ul style="list-style-type: none"> - Significant reduction in the use and disposal of single-use plastics. - Reduced availability and circulation of disposable plastic bags and packaging nationwide (urban and rural), decreasing the amount of plastic entering rivers, soils and the sea. - Greater compliance with the Zero Plastic Policy and Decree-Law No. 37/2020. - Increased percentage of establishments, importers and producers complying with the law, with a deterrent effect on the illegal or irregular supply of prohibited/restricted plastics. - Behavioural change and adoption of sustainable alternatives. - Urban and rural populations more aware and using alternatives (reusable bags, reusable/biodegradable packaging), contributing to SDGs 12 (Responsible Consumption and Production) and 14 (Life Below Water) and to the national objectives of the Blue Economy and “Zero Plastic Timor-Leste”. 	MEDIUM TERM
5.9	Expand the “Blue Fish” awareness campaign (fish-shaped collection bins) nationwide, ensuring the effective recycling of the plastic collected.	<ul style="list-style-type: none"> - MoTE - Municipal Authorities 	<ul style="list-style-type: none"> - Territorial expansion of the campaign. - Number of “Blue Fish” bins installed per municipality (urban and rural). - Percentage of municipalities in the country with at least one operational “Blue Fish” collection point. - Number of tonnes per year of plastic collected through the “Blue Fish” system. 	<ul style="list-style-type: none"> - Reduction of plastic in the environment. - Decrease in visible plastic litter on beaches, rivers and public spaces in areas covered by the campaign, contributing to reduced marine pollution (SDG 14.1). - Increased plastic recycling. - Higher percentage of plastic separated 	SHORT TERM

			<ul style="list-style-type: none"> - Percentage of plastic collected that is effectively sent for recycling (compared to the total collected by the system). - Public engagement and awareness. - Number of awareness/training actions associated with the “Blue Fish” campaign (schools, communities, markets, beaches). - Number of people reached and percentage of students/young people among participants. 	<ul style="list-style-type: none"> and recycled in the country, integrating into the circular economy and reducing pressure on dumpsites, rivers and the sea (SDG 12.5). - Greater environmental literacy and behavioural change. - Population more aware of the impacts of plastic and more accustomed to separating waste, reinforcing the 3Rs Policy and the National Zero Plastic Policy. 	
5.10	Acquire beach cleaning equipment (tractors), with priority given to the capital, Dili.	<ul style="list-style-type: none"> - PM/LMBO - MoTE - MoSA - Governance partners 	<ul style="list-style-type: none"> - Existence of a plan defining the number of tractors to be acquired in line with priority coastal (beach) areas and a multi-year acquisition schedule. - Existence of a procurement plan and completion of the related acquisition process. - Number of beaches/municipalities with equipment available, with priority for the Municipality of Dili. - Percentage of the total length of urban beaches in Dili receiving regular mechanised cleaning (with tractors) at least three times per week. - Percentage reduction in the volume of visible solid waste (measured through monthly monitoring) before and after the introduction of tractors. 	<ul style="list-style-type: none"> - Beach cleaning tractors acquired and operational. - Increased coverage of beaches receiving mechanised cleaning following equipment acquisition. - Reduced density of solid waste on priority sandy beach areas. - Expanded mechanised cleaning coverage of Dili’s beaches. - Visible reduction of litter on Dili’s beaches. 	SHORT/MEDIUM TERM
5.11	Invest in monitoring, research and data collection on marine plastic pollution in Timor-Leste.	<ul style="list-style-type: none"> - MoTE - Municipal Authorities 	<ul style="list-style-type: none"> - Number of monitoring points and marine litter/plastic sampling campaigns carried out per year (beaches, estuaries, open sea), with data recorded in a national database. - Number of technical or scientific studies/reports produced per year on marine plastic pollution (including baselines, trends, hotspots) and percentage of these used in official policies/plans. 	<ul style="list-style-type: none"> - National database on marine plastic pollution established and regularly updated, enabling reporting under the SDGs (particularly 14.1) and to international treaties. - More targeted and effective policies and measures to combat marine plastic pollution, prioritising identified “hotspots” (ports, coastal cities, estuaries and tourism areas). 	MEDIUM TERM
5.12	Develop content on pollution and marine pollution to be integrated into the National Ocean Literacy Programme.	<ul style="list-style-type: none"> - LMBO - ME - MHESC - SECOMS <p>(Articulate with Pillar 2)</p>	<ul style="list-style-type: none"> - Number of modules/pedagogical materials produced and officially integrated into the National Ocean Literacy Programme (manuals, teacher guides, student worksheets, videos, radio content, etc.). - Number of schools/training centres and percentage of students covered who use these contents on pollution (including marine pollution) in curricular or extracurricular activities. 	<ul style="list-style-type: none"> - Increased knowledge among students and communities about the causes, impacts and prevention of pollution (especially plastics) in rivers and at sea, reflected in more responsible practices. - Strengthened National Ocean Literacy Programme as a central tool to support the Zero Plastic Policy, the sustainable Blue Economy and the achievement of SDGs 12, 14 and 4 (Quality Education). 	SHORT TERM

5.13	Distribute, nationwide, equipment and containers for separate waste collection, linked to the subsequent management of these wastes (recycling), with the involvement of local authorities and communities.	<ul style="list-style-type: none"> - MoTE - MoSA 	<ul style="list-style-type: none"> - Number of sets of selective collection points/containers distributed and installed per municipality (glass, metal, paper, plastic, organic waste) and percentage of municipalities with an operational separate collection system. - Number of tonnes per year of waste collected separately and percentage of this waste effectively sent for recycling or other recovery, compared to the total volume of municipal waste generated. 	<ul style="list-style-type: none"> - Increased recycling rate and reduction in the amount of mixed waste sent to open dumps or improperly managed sites, decreasing the risk of litter reaching rivers and the sea. - Greater participation of local authorities and communities in waste management, strengthening 3Rs practices and contributing to the circular economy and to SDGs 11, 12 and 14. 	MEDIUM TERM
5.14	Invest in efficient waste collection and disposal systems using collection centres in each municipality, suco and village, including planning the market value of plastic waste that can be sold internationally to Plastic Banks or other Waste Banks.	<ul style="list-style-type: none"> - MoTE - MoSA - Municipal Authorities 	<ul style="list-style-type: none"> - Number of waste collection centres installed and operational per municipality, suco and village. - Percentage of the population with access to at least one functional collection point in their suco/village. - Economic valorisation of plastic waste implemented. - Number of tonnes per year of plastic collected, sorted and prepared for sale to Plastic Banks/Waste Banks. - Annual value (USD) generated from the sale of plastic waste and percentage reinvested in local waste management systems (equipment, jobs, environmental education). 	<ul style="list-style-type: none"> - Decentralised and efficient waste collection system. - Significant reduction of waste discarded in open spaces, rivers and waterways, due to the regular operation of collection centres in municipalities, sucos and villages. - Plastic waste transformed into a resource with market value, creating local income opportunities and making collection, sorting and recycling more financially attractive, supporting the circular economy and the Blue Economy. 	MEDIUM TERM
5.15	Promote, optimise and, where necessary, subsidise the private sector to improve existing waste management facilities and expand waste management infrastructure in Timor-Leste.	<ul style="list-style-type: none"> - MoSA - MoCI 	<ul style="list-style-type: none"> - Number of private companies supported (incentives/subsidies/contracts) to invest in or upgrade waste management infrastructure and percentage increase in installed capacity (tonnes/year). - Number of new facilities or expansions (controlled landfills, sorting/recycling centres, treatment units) constructed/modernised with private sector participation, and percentage of municipal waste managed by private operators under environmentally sound conditions. 	<ul style="list-style-type: none"> - Broader and more efficient national waste management infrastructure network, with a higher percentage of waste safely collected, treated and/or recycled, reducing land-based and marine pollution. - Greater private sector engagement in the circular economy and Blue Economy, generating green/blue jobs and strengthening the financial sustainability of waste management systems in Timor-Leste. 	MEDIUM TERM
5.16	Expand and improve recycling systems, notably by supporting existing companies engaged in recycling activities and encouraging investment in recycling facilities and technologies.	<ul style="list-style-type: none"> - MoSA - MoCI 	<ul style="list-style-type: none"> - Number of recycling companies supported (incentives, contracts, training, credit) and percentage increase in installed recycling capacity (tonnes/year) compared to the baseline year. - Number of new recycling facilities/lines or technologies introduced (e.g. for plastics, metals, glass, organics) and percentage of municipal waste effectively recycled compared to the total generated. 	<ul style="list-style-type: none"> - Significant increase in the national recycling rate, with a reduction in the amount of waste sent to dumpsites, burned in open air or discarded in rivers and coastal areas. - Stronger and more technologically advanced recycling sector, generating more jobs and value within the circular/Blue Economy. 	MEDIUM/LONG TERM

5.17	Promote the circular economy, including green public procurement policies requiring the use of recycled products, notably paving materials, panels and furniture in government projects.	- Whole of Government	- Number of legal acts/guidelines on green public procurement approved and number of government projects that include mandatory recycled content criteria (paving materials, panels, furniture, etc.). - Percentage of the annual value of public procurement for works, goods and services that incorporates products with recycled content, compared to total public procurement expenditure.	- Increased demand for recycled products, strengthening the circular economy (larger market for recycled materials and recycling companies). - Reduced use of virgin raw materials and lower volumes of waste sent for final disposal, contributing to lower emissions and reduced pollution.	MEDIUM/LONG TERM
5.18	Promote collaboration between Government and private recycling companies and waste management service providers to achieve pollution reduction targets.	- MoCI - MoSA - Municipal Authorities	- Number of formal agreements/partnerships (protocols, contracts, MoUs) established between Government and private recycling/waste management companies, and percentage of municipalities covered by these partnerships. - Number of tonnes per year of waste collected, treated or recycled under these public-private partnerships and percentage this represents of the total municipal waste generated in the country.	- More efficient and comprehensive waste management system, with an increased percentage of waste collected, treated and recycled in an environmentally sound manner, reducing land-based and marine pollution. - Structured and long-term relationship between Government and the private sector, aligned with national Zero Plastic and circular/Blue Economy targets.	MEDIUM/LONG TERM
5.19	Strengthen environmental impact assessment regimes and mechanisms for activities with a high risk of marine pollution.	- Whole of Government	- Number of high-risk project types (ports, aquaculture, coastal industry, oil and gas exploration, dredging, large-scale coastal tourism) that become subject to strengthened EIA requirements specific to marine pollution, and percentage of licensed high-risk projects that carry out a full EIA including a marine component. - Percentage of high-risk projects with approved marine environmental management plans that are effectively monitored.	- Reduction in incidents and significant marine pollution impacts associated with new projects, through improved prevention, mitigation and risk management. - More robust and credible environmental licensing process, aligned with SDGs 14 (Life Below Water) and 12 (Responsible Consumption and Production), enabling better protection of coastal ecosystems and the Blue Economy.	SHORT/MEDIUM TERM
5.20	Develop databases on waste collection and its destination (not only during beach clean-ups, but also in wetlands and water resources).	- PM/LMBO - MoTE - MoSA - MOPW	- Existence of a database containing data such as: • Location record: beach, mangrove, lagoon, river/river stretch, specific wetland; • Type of action record: community clean-up, municipal operation, specific campaign, NGO action, etc.; • Quantity and type of waste record: kg/tonnes, number of bags, with at least a minimum distinction between plastic, metal, glass, organics, others; • Final destination record: recycled (by fraction), recovered (e.g. composting, co-processing), controlled landfill, uncontrolled dumping (to be eliminated as an option), exported (where applicable).	- Database created and continuously updated to support the collection of cross-cutting indicators across the Pillar, enabling improved knowledge and action regarding the quantity of waste collected on beaches, rivers and wetlands; percentage recycled/recovered; identification of pollution “hotspots”; and monitoring of SDG targets (14.1, 12.5) and the Zero Plastic/Blue Economy Policy.	MEDIUM TERM
5.21	Holistically and integrative align marine pollution and waste management	- MoSA - MOPW - MPSI	- Number of national or sectoral plans/strategies (water, sanitation, waste, environment, health) that come to include joint objectives and actions on marine pollution	- Lower loads of solid waste and inadequately treated effluents entering rivers and the sea, due to coordinated	MEDIUM/LONG TERM

	(including liquid waste) with water and basic sanitation policies.		and litter in inland water resources, and percentage of ministries/sectors involved in these integrated plans. - Number of water supply and sanitation systems (wastewater treatment / improved latrines / drainage) implemented or rehabilitated in priority areas (coastal cities, river basins discharging into the sea) with specific components to reduce litter/effluents entering rivers and the sea, and percentage of the population in those areas covered.	interventions across water, sanitation and waste management, contributing to SDGs 6, 11, 12 and 14. - More integrated “mountain-river-sea” governance with improved institutional coordination, enabling more efficient and coherent planning and investment to reduce pollution and protect public health and the Blue Economy.	
5.22	Monitor the implementation of basic sanitation systems in new public or private building constructions (including residences), as well as waste management plans for any coastal tourism development.	- MoSA - MOPW - MPSI - MoTE	- Number of new constructions (public, private and residential) licensed per year with basic sanitation systems compliant with standards, and percentage effectively inspected after construction. - Number of coastal tourism developments licensed with an approved waste management plan, and percentage of these developments complying with the plans (verified through inspections/annual reports).	- Reduction of direct discharge of sewage and solid waste from new constructions and tourism developments into rivers, aquifers and the sea, contributing to SDGs 6 and 14. - Improved environmental quality in urban and coastal areas, reinforcing tourism attractiveness and public health, and supporting a more sustainable Blue Economy.	MEDIUM/LONG TERM
5.23	Invest in Research and Development for the identification of bacteria and viruses in fish and seafood, as well as research and database records on the most prevalent diseases among populations residing or working in coastal areas and related industries.	- MoH - National laboratories and research centres (Timor-Leste Biodiversity Survey and Study Mechanism)	- Number of laboratory studies/analyses carried out per year on bacteria and viruses in fish and shellfish captured in coastal areas of Timor-Leste, and number of species/sampling sites included. - Number of operational databases or information systems on prevalent diseases among coastal populations and Blue Economy workers, and number of cases/records entered per year (including percentage of coastal health units reporting to these systems).	- Improved food safety and public health, through early identification of microbiological risks in seafood products and strengthened capacity to issue alerts, guidance and sanitary controls. - Better targeted health, labour and environmental policies and programmes for higher-risk coastal populations and sectors, supporting a safer and more sustainable Blue Economy aligned with SDGs 3 (Good Health and Well-being), 14 (Life Below Water) and 8 (Decent Work).	MEDIUM/LONG TERM

PILLAR 6: CARBON SEQUESTRATION

STRATEGIC OBJECTIVES

- **Promote integrated policies to combat the degradation of coastal ecosystems, including unsustainable practices in the use of natural resources, watershed management and waste management.**
- **Promote and restore coastal areas through coordinated integrated management, to improve the productivity of coastal activities, food security and community health.**
- **Promote reforestation and agroforestry, delivering benefits in terms of carbon removal and coastal resilience, by stabilising soils, improving watershed management and increasing biodiversity — creating important synergies between forest and marine ecosystems.**

- Promote community-led and socially inclusive project design: FCOTI and WithOneSeed/Rai Matak are based on partnerships with subsistence farmers and women, using annual incentive structures, farmer cooperatives and training to ensure equitable benefit-sharing and build local ownership — strategic elements for sustaining long-term carbon interventions.
- Prepare carbon markets and policies, notably by ensuring Plan Vivo and Gold Standard certification, engaging in voluntary carbon markets and establishing enabling national instruments — designed to be scaled up through carbon agriculture policies, legal frameworks and greenhouse gas accounting systems in the land sector, currently supported under the development of the EU-TA carbon agriculture policy.
- Contribute to long-term carbon sequestration and storage, thereby combating climate change and providing improved living conditions for Timorese people and for humanity.
- Develop community-led nature-based solution projects, including mangrove restoration, salt marsh preservation and seagrass meadow conservation.
- Access voluntary carbon markets and unlock new sustainable income opportunities to support local livelihoods.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
6.1	Conduct biodiversity surveys and research in Timor-Leste and increase national and international research efforts on carbon sequestration in coastal areas.	<ul style="list-style-type: none"> - Blue Economy Working Group - Timorese lead institution for the Survey and Study process (to be identified and formally established) - MHESC/INCT/UNTL/ISP - Governance partners to be identified 	<ul style="list-style-type: none"> - Number of research projects on carbon sequestration in coastal areas (mangroves, seagrass meadows, tidal marshes) with participation of Timorese institutions. - Number of coastal sites with ecological and blue carbon monitoring plots/stations installed. - Number of knowledge products (inventories, reports, papers) integrating marine biodiversity data and blue carbon sequestration data in Timor-Leste. 	<ul style="list-style-type: none"> - One to five active projects by 2030. - Projects with international co-financing or partnership. - Increased number of blue carbon credit projects. - Priority sites identified by 2030, covering at least three blue carbon ecosystem types. - Conditions created for annual biomass and carbon measurements integrated into a national database. - Sequestration values (tCO₂e/ha/year) estimated for at least three coastal habitats. - National reports produced and used as a basis for decisions on marine protected areas and coastal spatial planning. 	MEDIUM TERM
6.2	Map and characterise blue carbon ecosystems in Timor-Leste.	<ul style="list-style-type: none"> - Blue Economy Working Group - Timorese lead institution for the Survey and Study process (to be identified and formally established) - MHESC/INCT/UNTL/ISP - Governance partners to be identified <p>(Articulate with Pillar 3: 3.2)</p>	<ul style="list-style-type: none"> - Number of coastal blue carbon areas mapped (mangroves, seagrass meadows, salt marshes). - Number of hectares of blue carbon ecosystems characterised (habitat type, conservation status, sequestration potential). - Number of national inventories/reports produced on blue carbon ecosystems in Timor-Leste. 	<ul style="list-style-type: none"> - At least five priority coastal areas mapped by 2028. - Cartographic coverage of at least 80% of the main mangrove and seagrass areas by 2030. - Maps integrated into the national coastal and marine spatial planning system. - Simple condition classification (good/fair/degraded) available for 100% of the mapped area. - Initial carbon sequestration estimates (tCO₂e/ha) for at least three types of coastal habitat. - One simplified national inventory completed by 	MEDIUM TERM

				2030. - Inventory updated every five years, incorporating new biodiversity and blue carbon data. - Reports used as a technical basis for the creation/expansion of marine protected areas and blue carbon projects.	
6.3	Define, based on the mapping, appropriate conservation and restoration measures, and their valorisation.	<ul style="list-style-type: none"> - Blue Economy Working Group - Timorese lead institution for the Survey and Study process (to be identified and formally established) - MHESC/INCT/UNTL/ISP - Governance partners to be identified <p>(Articulate with Pillar 3: 3.2)</p>	<ul style="list-style-type: none"> - Number of conservation/restoration plans or measures for blue carbon ecosystems defined based on mapping results. - Number of hectares of blue carbon ecosystems under implemented conservation or restoration actions. - Estimated economic value of ecosystem and blue carbon services generated by conserved/restored areas. 	<ul style="list-style-type: none"> - At least five specific plans (mangroves, seagrass meadows, salt marshes) approved by 2030. - At least three of these plans integrated into marine protected areas or special management zones. - Plans reviewed every five years based on updated mapping and monitoring information. - At least two blue carbon credit projects or similar mechanisms under development or operational by 2030. - Use of these valuation results in public and private investment decisions. 	MEDIUM TERM
6.4	Create a national portfolio of interventions in blue carbon ecosystems for future investment by entities seeking to offset their carbon footprint.	<ul style="list-style-type: none"> - Blue Economy Working Group - Timorese lead institution for the Survey and Study process (to be identified and formally established) - MHESC/INCT/UNTL/ISP - MoF - Governance partners to be identified 	<ul style="list-style-type: none"> - Existence of a conceptual document defining the national blue carbon portfolio. - Number of projects included in the national portfolio of interventions in blue carbon ecosystems. - Number of support and recognition actions provided to foundations/organisations developing projects in the country with the involvement of local communities. - Number of hectares eligible for blue carbon investment included in the national portfolio. - Amount of financing mobilised (USD) and number of investor entities engaged in the blue carbon portfolio. 	<ul style="list-style-type: none"> - Portfolio organised by type of intervention (conservation, restoration, monitoring) and by coastal region. - Projects planned with preliminary estimates of carbon sequestration (tCO₂e) and indicative costs. - Carbon baseline established for at least 50% of the area included in the portfolio. - At least five interested entities (private sector, donors, offset mechanisms) committed by 2030. - Cumulative investment mobilised for blue carbon projects. - At least two portfolio projects registered or in the process of registration under voluntary carbon market standards (Plan Vivo, Gold Standard or equivalent). 	MEDIUM TERM
6.5	Conduct financial and institutional impact studies on blue carbon, as well as capacity building for projects to be developed by local communities.	<ul style="list-style-type: none"> - Blue Economy Working Group - Timorese lead institution for the Survey and Study process (to be identified and formally established) - MHESC/INCT/UNTL/ISP - MoF 	<ul style="list-style-type: none"> - Number of financial and institutional impact studies on blue carbon conducted. - Number of capacity building programmes on blue carbon projects delivered to local 	<ul style="list-style-type: none"> - At least three studies completed by 2030 (cost benefit analysis, legal frameworks, institutional arrangements). - Studies used to adjust national Blue Economy or climate policies. 	MEDIUM TERM

		- Governance partners to be identified	communities. - Number of community-based blue carbon projects designed or under implementation following the capacity building.	- Local communities trained in the sector and community proposals submitted to funders or voluntary carbon markets.	
6.6	Encourage private sector development through subsidies and fiscal incentives for companies investing in blue carbon.	- MoTE - MALFF - MoF - Relevant partners	- Number of companies receiving subsidies or fiscal incentives linked to blue carbon investments. - Total amount of subsidies and fiscal incentives allocated to blue carbon projects (USD/year). - Number of private blue carbon projects (mangrove conservation/restoration, seagrass meadows, etc.) supported through these incentives.	- At least five beneficiary companies by 2030. - Private sector actors, companies and communities benefit from blue carbon through revenue generation and improved livelihoods.	MEDIUM TERM
6.7	Create carbon markets enabling the purchase and sale of carbon credits, incentivising emission reductions.	- MoTE - MALFF - MoF - Relevant partners	- Legal and institutional framework for carbon markets established. - Number of projects registered and carbon credits issued in the market (including blue carbon). - Number of transactions and total value (USD) of carbon credit purchases and sales carried out.	- Basic legislation for carbon markets approved. - Creation of a national authority responsible for the certification and registration of carbon credits. - Definition of specific rules for blue carbon credits (mangroves, seagrass meadows, salt marshes). - Projects registered in the national blue carbon market. - Ongoing projects with participation or direct leadership of local communities. - Incentives for companies operating in the country to act as buyers of credits to offset their carbon footprint.	MEDIUM TERM
6.8	Ensure Plan Vivo and Gold Standard certification, access to voluntary carbon markets and enabling national instruments.	- MoTE - MALFF - MoF - Relevant partners	- Number of blue carbon and forest carbon projects certified or in the process of certification under Plan Vivo and/or Gold Standard. - Existence and operationalisation of a national facilitation framework for voluntary carbon markets (standards, technical guidelines, national registry and competent authority). - Establishment of a national focal point/competent authority for the registration, approval and monitoring of voluntary carbon projects.	- Certified projects or projects in the certification process, including FCOTI and WithOneSeed/Rai Matak. - Pilot blue carbon projects (mangroves/seagrass meadows) structured for certification under Gold Standard or Plan Vivo. - Cumulative volume of verified credits issued under internationally recognised standards. - Existence of national roadmaps for voluntary carbon market projects (including social and environmental safeguards aligned with Plan Vivo and Gold Standard). - Operation of a national registry (or reporting system) to avoid double counting and to integrate credits issued under Plan Vivo, Gold Standard, Verra, etc.	MEDIUM TERM

			<ul style="list-style-type: none"> - Availability of national practical manuals or guides (in Tetum/Portuguese) to support communities and project developers in preparing projects. - Number of national technicians trained in the development, monitoring and reporting of projects under Plan Vivo and Gold Standard standards. 	<ul style="list-style-type: none"> - National technical capacity strengthened (government, NGOs, universities, cooperatives trained in Plan Vivo and Gold Standard standards). - In all certified projects, at least 40% of trained participants are women and members of local communities. 	
6.9	Promote the development of a legal framework for the implementation of carbon sequestration, capture and storage of CO ₂ in the Timor Sea.	- MPMR	<ul style="list-style-type: none"> - Existence and approval of a legal framework for offshore carbon capture and storage (CCS) in the Timor Sea. - Number of specific regulations and technical standards for offshore CCS adopted. - Number of national institutions with defined mandates and procedures for CCS. 	<ul style="list-style-type: none"> - Offshore CCS legal framework developed and approved. - Explicit inclusion of provisions for storage in depleted reservoirs (e.g. Bayu Undan) and in new reservoirs. - Approval of instruments covering licensing, safety and environmental monitoring, as well as environmental impact assessment and public consultation procedures for CCS projects, in accordance with international good practice and relevant conventions. 	MEDIUM TERM
6.10	Transform and encourage the reuse of geological reservoirs, installations and offshore platform infrastructure previously used for oil and gas exploration for carbon capture and storage (for example, the depleted Bayu Undan gas fields).	- MPMR	<ul style="list-style-type: none"> - Number of offshore fields/installations assessed and selected for carbon capture and storage (CCS) use. - Estimated and contracted CO₂ storage capacity in repurposed geological reservoirs (MtCO₂). - Number of partnerships and investments established for offshore CCS projects in Timor-Leste. 	<ul style="list-style-type: none"> - At least one full feasibility study for Bayu Undan completed by 2030. - At least two fields/infrastructures (including Bayu Undan) identified as technically suitable for CCS by 2030. - Conclusions integrated into national energy and climate plans. - Estimated total storage capacity (in MtCO₂) completed for at least two reservoirs by 2035. - At least one agreement or pilot project established for CO₂ injection in Bayu Undan or an equivalent reservoir by 2032. - Integration of this capacity into national emission reduction/carbon neutrality targets. 	MEDIUM TERM
6.11	Encourage the exploration of new geological reservoirs in the Timor Sea for the purpose of CO ₂ sequestration and permanent storage.	- MPMR	<ul style="list-style-type: none"> - Number of geological and feasibility studies conducted for new CO₂ reservoirs in the Timor Sea. - Number of new geological reservoirs preselected for CO₂ sequestration and storage projects. - Number of partnerships 	<ul style="list-style-type: none"> - Existence of prospecting and assessment studies. - Potential geological reservoirs suitable for permanent CO₂ storage identified. - Integration of results into national energy and climate plans. - Preliminary estimate of storage capacity (MtCO₂) and associated environmental risks. - Partnerships established with companies/institutions specialised in CCS. 	MEDIUM TERM

established and amount of investment mobilised for the exploration of new CO₂ reservoirs.

- National licensing and supervisory mechanisms created for new CO₂ reservoirs.

AXIS 3: SUSTAINABLE USE (LIVING WITH THE SEA)

PILLAR 7: BLUE TOURISM

7.1 COASTAL TOURISM

STRATEGIC OBJECTIVES

- Sustainable development throughout the country, prioritising practices that preserve marine ecosystems, coastal zones and other aquatic environments such as rivers, lagoons and waterfalls, and promoting the responsible use of natural resources. This includes the conservation of marine and aquatic biodiversity and the protection of critical habitats such as coral reefs, mangroves and estuaries.
- Development of both traditional and innovative activities within blue tourism, such as diving and snorkelling, whale and marine wildlife watching, sustainable and recreational fishing, boat tours, adventure tourism in coastal areas and in access zones to mountain water bodies, as well as nautical and beach sports (beach football and volleyball).
- Encouraging community development by creating conditions for blue tourism to be led by the communities themselves, including professional training and capacity building, subsidies and support through development and seed capital, as well as the transfer of local tourism management in ways that respect local culture and traditions.
- Promoting the local economy and empowering women and young people nationwide through blue tourism activities, including targeted training and capacity building initiatives.
- Encouraging traditional practices that promote marine conservation and blue tourism, such as Tara Bandu.
- Promoting environmental education and awareness, particularly through ocean literacy, while training host communities and visitors alike in sustainable practices and ecosystem preservation, with both national and international impact.
- Developing the national private sector, particularly tourism operators and related sectors, by providing the conditions and means for low environmental impact tourism development, including sustainable transport, ecofriendly accommodation and proper waste management.
- Increasing the number of tourists visiting the country, under strict sustainability rules regarding entry, use and tourism practices.
- Positioning Timor-Leste as a destination of excellence, characterised by low volume and high-quality whale watching, diving and nature tourism.
- Implementing the National Tourism Policy in an integrated and sustainable manner, with concrete action plans that ensure financial and environmental sustainability.
- Improving the legal and regulatory framework of the tourism sector.
- Investing in international tourism promotion and marketing campaigns for Timor-Leste.
- Creating financial incentive funds to protect biodiversity and ecosystems. This Blue Tourism Community Support Fund would be allocated exclusively for community use, based on proposals from organisations, associations and cooperatives in areas such as eco establishments for handicraft production and trade, local restaurants, seaweed production and related activities.

- **Implementing Coastal Zone Management Plans (POOC), linking coastal land use regulation with an economic development strategy centred on coastal tourism, safeguarding environmental concerns and ensuring rational and sustainable management of natural resources, thereby integrating spatial planning with investment strategies.**

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
7.1.1	Develop low environmental impact tourism activities, such as ecotourism and diving, that value and preserve local culture and marine ecosystems, with the aim of generating income and employment. This may include activities such as sailing, traditional canoe tours, whale and marine wildlife watching, among others.	- MoTE - Other governance partners	- Number of low impact tourism products created (ecotourism, diving, sailing, traditional canoes, whale watching, etc.). - Number of direct and indirect jobs created in low impact coastal tourism. - Percentage of coastal operators with an environmental code of conduct implemented. - Number of coastal communities with operational low impact coastal tourism programmes. - Average level of tourist satisfaction with coastal tourism activities (based on surveys).	- Low impact coastal tourism activities implemented in various coastal areas, generating local employment and income. - Coastal communities actively engaged in delivering sustainable tourism services. - Improved international image of Timor-Leste as a marine ecotourism destination.	SHORT/MEDIUM TERM
7.1.2	Regulate tourism activities in marine protected and sensitive areas (e.g. coral reef areas under restoration).	- MoTE - Other governance partners (Articulate with Pillar 3: 3.2)	- Number of specific regulations approved for tourism in marine protected and sensitive areas. - Number of marine protected areas with approved tourism use plans. - Percentage of operators in sensitive areas holding valid licences and in compliance. - Number of enforcement actions carried out per year.	- Tourism activities in sensitive areas conducted in a controlled and regulated manner. - Reduction of negative impacts on reefs, vulnerable species and critical habitats. - Increased legal compliance by marine tourism operators.	SHORT/MEDIUM TERM
7.1.3	Install mooring buoys for artisanal fishing boats and dive boats and raise awareness to avoid the use of anchors on coral reefs.	- MoTE - MALFF - Other identified development partners	- Number of ecofriendly mooring buoys installed in coral reef areas. - Number of dive sites and artisanal fishing locations equipped with moorings. - Percentage of vessels using installed moorings instead of anchoring on reefs. - Number of awareness raising actions carried out with fishers and dive operators.	- Significant reduction in physical damage to coral reefs caused by anchors. - Increased adoption of sustainable mooring practices by operators and fishers. - Improved ecological integrity of coral reefs in tourism areas.	SHORT/MEDIUM TERM
7.1.4	Build the capacity of local operators in environmental good practices to care for and preserve the marine environment.	- MoTE - MoSA - MOPW - Other Partners to be identified	- Number of tourism operators trained in coastal environmental good practices. - Percentage of trained operators applying sustainable practices (waste management, water and energy efficiency, etc.).	- Coastal operators with greater capacity to manage the environmental impacts of their activities. - Systematic integration of	SHORT/MEDIUM TERM

			- Percentage of training modules developed and delivered.	sustainable environmental practices into tourism services. - Reduction of pollution and harmful behaviours in coastal tourism areas.	
7.1.5	Provide dedicated funds to promote community participation, based on proposals submitted by organisations, associations and cooperatives in areas such as eco establishments for the production and sale of handicrafts, local restaurants along the coastal zone, and related initiatives. These projects aim to strengthen community and local participation in tourism activities, particularly coastal and community-based tourism.	- MoTE - MoCI - MoSA - Other Partners to be identified	- Number of community-based coastal tourism projects funded (handicrafts, local restaurants, accommodation, etc.). - Total amount of funding granted per year. - Number of direct beneficiaries (men, women, young people) per project. - Percentage of community projects that remain active after three years.	- Increased community participation in the coastal tourism value chain. - Greater local income generation and poverty reduction in coastal communities. - Strengthened cooperatives, associations and community organisations linked to blue tourism.	SHORT/MEDIUM TERM
7.1.6	Define Sustainable Blue Tourism Areas (ATAS) through the designation of blue flag beaches, to promote their safe use by tourists and the local population.	MoTE	- Number of Sustainable Blue Tourism Areas officially designated. - Number of beaches certified with Blue Flag or an equivalent national certification. - Percentage of certified beaches complying with water quality, safety, waste management and environmental education criteria. - Number of tourists visiting ATAS per year.	- National network of beaches and coastal areas meeting high sustainability and safety standards. - Improved environmental and sanitary quality of main tourist beaches. - Increased attractiveness of Timor Leste as a quality coastal tourism destination.	MEDIUM TERM
7.1.7	Construct community eco lodges in Ataúro, Lautém and across the coastal zone.	- MoTE	- Number of community eco lodges constructed and operational. - Number of communities involved in the management of eco lodges. - Average annual occupancy rate of eco lodges. - Number of local jobs created (disaggregated). - Percentage of renewable energy used and sustainable management practices applied in eco lodges.	- Development of sustainably managed community accommodation, generating direct economic benefits. - Promotion of local culture and identity through the community-based lodging model. - Reduction of the ecological footprint of the accommodation sector in coastal areas.	MEDIUM TERM
7.1.8	Install informative coastal tourism signage.	- MoTE - Mol	- Number of tourism information panels and signs installed in coastal areas. - Percentage of main coastal tourist sites with adequate signage. - Number of signs including environmental education and safety content. - Level of visitor understanding and use of signage (based on surveys).	- Improved visitor orientation, safety and overall experience in coastal areas. - Greater environmental awareness and respect for local rules. - Reduction in accidents and risky behaviour on beaches and rocky coastal zones.	MEDIUM TERM

7.1.9	Socialise and expand the programmes and campaigns: “O meu Mar, o meu Timor”, “National Ocean Week”, “The Sea Begins Here! The Blue Economy, from Mountain to Sea”, “Young Blue Economy Ambassadors”, and “Peixe Azul”.	<ul style="list-style-type: none"> - LMBO - MoTE - Municipal Authorities 	<ul style="list-style-type: none"> - Number of campaigns carried out per year and their geographical coverage. - Number of participants in activities under each campaign (by target group: students, young people, communities, tourists). - Number of communication materials produced and distributed (posters, radio/TV spots, social media content). - Level of knowledge on the Blue Economy and sustainable practices before and after the campaigns (based on surveys). 	<ul style="list-style-type: none"> - Increased ocean literacy and public awareness of the Blue Economy. - Greater engagement of young people and communities in marine conservation actions. - Consolidation of a national identity associated with the sea and the sustainable use of marine resources. 	SHORT TERM
7.1.10	Encourage the participation of local communities in the community-based management of reefs and fishing areas, with the support of traditional regulations such as Tara Bandu.	<ul style="list-style-type: none"> - LMBO - MoTE - MALFF - Marine Biodiversity Survey and Study Mechanism - Municipal Authorities - Other Partners to be identified 	<ul style="list-style-type: none"> - Number of reefs and fishing areas under formalised community management. - Number of active Tara Bandu agreements or regulations related to marine conservation. - Number of community members involved in management committees. - Variation in the abundance of target species and reef health in community managed areas. 	<ul style="list-style-type: none"> - Strengthened community governance in the management of reefs and fisheries resources. - Reduction of destructive fishing and unsustainable practices in coastal areas. - Improved fish stocks and protection of marine biodiversity. 	SHORT/MEDIUM TERM
7.1.11	Create training programmes for local community groups providing tourism services (tour operators, tour guides, divers, women entrepreneurs in tourism infrastructure, Atauro women divers “WAWATA TOPU” and other community-based tourism operators).	<ul style="list-style-type: none"> - LMBO - MoTE - MALFF - MoCI - Marine Biodiversity Survey and Study Mechanism - Municipal Authorities - Other Partners to be identified 	<ul style="list-style-type: none"> - Number of training sessions delivered and total training hours provided. - Number of participants trained (tour operators, guides, divers, women entrepreneurs, “WAWATA TOPU”, etc.). - Percentage of trainees applying acquired knowledge in their activities. - Number of new community-based tourism products/services created following the training. 	<ul style="list-style-type: none"> - Coastal communities with enhanced technical and management capacity in the tourism sector. - Increased female and youth entrepreneurship in blue tourism. - Improved quality of tourism services offered to visitors. 	SHORT/MEDIUM TERM
7.1.12	Support, through a dedicated financial and capacity building fund, the “women divers” or “women of the sea” of Atauro Island (WAWATA TOPU).	<ul style="list-style-type: none"> - MoTE - MoCI - MoF 	<ul style="list-style-type: none"> - Amount of funding specifically allocated to the “women of the sea” of Atauro. - Number of women divers benefiting from financial support and capacity building. - Number of economic initiatives led by these women (tourism, handicrafts, marine products). - Variation in the average income of beneficiaries. 	<ul style="list-style-type: none"> - Economic and social empowerment of the women divers of Atauro. - Recognition and valorisation of their traditional ecological knowledge. - Increased female participation in Timor Leste’s Blue Economy. 	SHORT TERM
7.1.13	Promote the practice of Tara Bandu for marine conservation on Atauro Island and across the country’s coastal zone, led by local communities.	<ul style="list-style-type: none"> - Blue Economy Working Group - Timorese lead institution for the Survey and Study process (to be identified) 	<ul style="list-style-type: none"> - Number of new coastal areas where Tara Bandu is implemented for marine conservation. - Number of Tara Bandu ceremonies and community renewal processes conducted. - Percentage of community members who are aware of and respect Tara Bandu rules (based 	<ul style="list-style-type: none"> - Strengthened use of traditional practices as instruments for marine conservation. - Greater community compliance with sustainable marine resource use rules. 	SHORT/MEDIUM TERM

		and formally established) - Entity responsible for monitoring Tara Bandu - Governance partners to be identified	on surveys). - Variation in ecological indicators (fish biomass, coral cover) in areas under Tara Bandu.	- Culturally appropriate protection of coastal ecosystems.	
7.1.14	Create the Blue Tourism Community Support Fund and provide financial incentives to seaweed producer groups.	- MoTE - MoF - Whole of Government	- Formal establishment of the Fund (legal act, regulation, management committees). - Number of projects supported (community-based blue tourism, seaweed production, etc.). - Total amount disbursed annually. - Percentage of seaweed projects achieving expected production and commercialisation targets. - Number of jobs created in seaweed value chains.	- Permanent financial mechanism linked to the Blue Economy. - Sustainable expansion of seaweed production and trade. - Increased income for coastal households and greater local economic diversification.	SHORT/MEDIUM TERM
7.1.15	Implement international campaigns focused on diving tourism, nature tourism and ecotourism.	- MoTE - LMBO - SECOMS	- Number of international campaigns carried out (fairs, roadshows, digital campaigns). - Number of target markets reached (countries, cities). - Number of contacts established with international tour operators and travel agents. - Variation in the number of international diving and nature tourists. - Percentage of international tourists identifying Timor Leste as an ecotourism destination.	- Increased recognition of Timor Leste as a diving and nature tourism destination in the Asia Pacific region. - Growth in high value, low volume niche tourism flows. - Improved tourism revenue associated with blue tourism products.	SHORT/MEDIUM TERM
7.1.16	Promote the use of ecofriendly materials and sustainable construction practices along the country's coastal zone.	- MoTE - MOPW - FI	- Number of regulations or technical guidelines on sustainable coastal construction approved. - Percentage of new coastal developments using ecofriendly materials and sustainable techniques. - Number of inspections carried out on coastal constructions. - Number of training sessions delivered to construction companies, architects and local entrepreneurs.	- Reduction of environmental impacts from construction along the coastal zone. - Improved resilience of coastal infrastructure to extreme climate events. - Coastal landscape better harmonised with environmental and cultural values.	MEDIUM TERM
7.1.17	Finalise the regulations related to the Framework Law on Tourism Activities, to improve coordination and evaluation of policies defined and approved by the Council of Ministers for tourism, commercial and industrial economic activities.	- MoTE	- Number of regulations approved. - Average time between approval and implementation of regulations. - Number of public and private institutions involved in the application of the law. - Number of tourism policy evaluations conducted under the new legal framework.	- Clear and updated legal framework for the sustainable development of tourism. - Improved interministerial coordination and regulation of tourism activities. - Reduction of land use conflicts	SHORT TERM

				and increased legal certainty for investors.	
7.1.18	Develop regulations and establish strict licensing requirements for contact with marine species, including appropriate monitoring.	<ul style="list-style-type: none"> - MoTE - LMBO - MALFF - Governance partners 	<ul style="list-style-type: none"> - Number of regulations approved regarding interaction with marine species (whales, dolphins, turtles, etc.). - Number of licences issued for wildlife watching and contact activities involving marine species. - Percentage of licensed operators complying with responsible observation protocols. - Number of recorded infringements and sanctions applied. 	<ul style="list-style-type: none"> - Marine wildlife interactions conducted responsibly and without disturbance. - Enhanced protection of vulnerable and threatened species. - Reduction of commercial practices that endanger the health and welfare of marine fauna. 	SHORT TERM
7.1.19	Expand reef restoration in Marine Protected Areas (MPAs) and consider new areas for marine protection.	<ul style="list-style-type: none"> - MoTE - LMBO - MALFF - Governance partners <p>(Articulate with Pillar 3: 3.2)</p>	<ul style="list-style-type: none"> - Number of reef restoration projects implemented in marine protected areas. - Total reef area restored (hectares). - Number of new marine areas identified and proposed for protection. - Ecological recovery indicators (coral cover, species diversity, biomass). 	<ul style="list-style-type: none"> - Gradual recovery of degraded reefs in areas of high ecological and tourism value. - Expansion of the network of marine protected areas in Timor Leste. - Increased resilience of marine ecosystems to climate change. 	MEDIUM TERM
7.1.20	Expand the restoration of coral reefs, mangroves and seagrass meadows.	<ul style="list-style-type: none"> - MoTE - LMBO - MALFF - Governance partners 	<ul style="list-style-type: none"> - Total area of coral reefs, mangroves and seagrass meadows restored. - Number of community and institutional restoration projects underway. - Number of mangrove and seagrass seedlings planted and survival rate. - Number of communities involved in restoration activities. 	<ul style="list-style-type: none"> - Improved natural coastal protection against erosion and storms. - Increased marine biodiversity associated with reefs, mangroves and seagrass meadows. - Creation of tourism and sustainable fishing opportunities linked to restored ecosystems. 	MEDIUM TERM
7.1.21	Monitor and combat marine pollution.	<ul style="list-style-type: none"> - MoTE - MoI - MoD - MoSA - MPSI - Municipal Authorities 	<ul style="list-style-type: none"> - Number of marine water quality monitoring points. - Frequency of marine pollution monitoring campaigns. - Number of pollution sources identified and mitigated (sewage, solid waste, oil, etc.). - Variation in key pollutant levels in coastal waters. - Number of enforcement actions and fines applied for marine environmental offences. 	<ul style="list-style-type: none"> - Improved water quality in coastal and bathing areas. - Reduction of pollutant discharges and waste entering the sea. - Increased sanitary safety for bathers and tourists. 	MEDIUM TERM
7.1.22	Raise awareness, encourage and train coastal communities to protect the sea through community-based coastal clean up campaigns.	<ul style="list-style-type: none"> - MoTE - LMBO - MoSA - ME 	<ul style="list-style-type: none"> - Number of coastal clean up campaigns carried out per year. - Number of volunteer participants (disaggregated data). - Quantity of waste collected (tonnes). 	<ul style="list-style-type: none"> - Coastal communities more actively engaged in protecting their marine environment. - Reduction of visible litter on beaches and in coastal areas. 	SHORT/MEDIUM TERM

			<ul style="list-style-type: none"> - Percentage of participants reporting behavioural change regarding litter and the sea. - Number of schools and community organisations involved. 	<ul style="list-style-type: none"> - Increased awareness of waste management and recycling practices. 	
7.1.23	Control crocodile populations and map safe areas with Blue Flag designation, investing in a long-term crocodile management plan.	<ul style="list-style-type: none"> - MoTE - MALFF - Mol 	<ul style="list-style-type: none"> - Existence and implementation of a national crocodile management plan. - Number of incidents recorded between crocodiles and humans per year. - Number of beaches and bathing areas classified as safe and signposted (Blue Flag or equivalent). - Number of problematic crocodiles safely captured and relocated. - Number of community education actions on safety in crocodile prone areas. 	<ul style="list-style-type: none"> - Reduction in incidents and increased safety for residents and tourists in coastal areas. - Balance between conserving the crocodile as a national symbol and ensuring public safety. - Improved tourist confidence in visiting designated safe beaches and coastal zones. 	MEDIUM TERM

7.2 MARITIME OR NAUTICAL TOURISM

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
7.2.1	Invest in human resource training in the field of sustainable tourism.	<ul style="list-style-type: none"> - MoTE - MTT - MPSI - FDCH - Training Centres - Partners to be identified 	<ul style="list-style-type: none"> - Number of courses and training programmes in sustainable nautical tourism. - Number of participants trained (crews, boat guides, cruise operators, etc.). - Percentage of trainees employed in the nautical sector after training. - Level of knowledge in sustainable practices before and after training (assessments). 	<ul style="list-style-type: none"> - Qualified human resources framework for sustainable nautical tourism activities. - Improved quality and safety of services provided in navigation, boat tours and diving. - Increased national capacity to manage maritime tourism initiatives. 	MEDIUM TERM
7.2.2	Rehabilitate the Dili waterfront within the framework of the city's urban planning, which may include the construction of a Dili Marina and other projects for the redevelopment of the Dili seafront, transforming it into an attractive leisure and recreational space.	<ul style="list-style-type: none"> - MPSI - MoSA - MOPW - MoTE 	<ul style="list-style-type: none"> - Existence and implementation of a Dili waterfront rehabilitation plan. - Kilometres of seafront redeveloped. - Number of infrastructures constructed or renovated (marina, promenades, public spaces). - Number of visitors and users of the seafront per year. - Level of user satisfaction (surveys). 	<ul style="list-style-type: none"> - Dili's seafront transformed into an attractive, safe and multifunctional space for leisure and tourism. - Creation of physical conditions for the development of nautical tourism (marina, piers, etc.). - Strengthened image of Dili as a maritime capital. 	SHORT TERM
7.2.3	Develop a crocodile management strategy that combines cultural respect with tourism safety measures (for example, traps and relocation of problematic crocodiles).	<ul style="list-style-type: none"> - MoTE - MALFF 	<ul style="list-style-type: none"> - Approved crocodile management strategy document. - Number of cultural and scientific measures integrated into the strategy. - Number of incidents reduced following implementation of the strategy. 	<ul style="list-style-type: none"> - Integrated approach to crocodile management that respects local beliefs while ensuring safety. - Reduction of conflicts between tourism use of beaches and crocodile presence. 	MEDIUM TERM

			- Number of community consultations conducted (including traditional leaders).	- Greater community acceptance of management measures.	
7.2.4	Build and operationalise Crocodile Management Parks, increasing beach safety while preserving the species and promoting tourism centred on an animal that symbolizes Timorese identity.	- MoTE - MALFF - MPSI	- Number of Crocodile Management Parks constructed and operational. - Number of crocodiles managed in semi natural captivity or secure observation settings. - Number of annual visitors to the parks. - Number of environmental education programmes on crocodiles delivered.	- Creation of themed tourist attractions centred on the crocodile as a national symbol. - Increased beach safety through the management of problematic crocodiles. - Greater public awareness of the biology and cultural significance of the crocodile.	MEDIUM TERM
7.2.5	Promote art and cultural initiatives, including gastronomy, in coastal areas, particularly through celebrations of National Ocean Week.	- LMBO - SEAC - MYSAC - MoTE - SECOMS - Municipal Authorities	- Number of cultural and gastronomic events held annually in coastal areas. - Number of participants (residents and tourists). - Number of artists, cultural groups and chefs involved. - National and international media coverage of the initiatives.	- Integration of Timorese maritime culture into the tourism offer. - Increased attractiveness of coastal areas during themed festivals. - Promotion of local cultural and gastronomic products linked to the sea.	SHORT TERM
7.2.6	Promote beach activities by ensuring cleanliness, safety and access infrastructure, while safeguarding sustainable practices and respect for nature.	- MoTE - MoSA - MOPW - MPSI - Municipal Authorities	- Number of beaches equipped with basic infrastructure (sanitary facilities, showers, access paths, lighting, etc.). - Number of regular beach cleaning and maintenance actions. - Number of rescues and incidents recorded (with a decreasing trend as the objective). - Number of beach users (residents and tourists).	- Cleaner, safer and more attractive beaches for recreation and tourism. - Improved coastal leisure experience for families and visitors. - Creation of favourable conditions for beach sports and events.	SHORT/MEDIUM TERM
7.2.7	Create specific regulations for the use of coasts and seas, as well as for interaction with nature.	- LMBO - PCM - MoTE - MPSI	- Number of regulations approved on recreational and tourism use of coasts and seas. - Number of zones with clearly defined uses (bathing, nautical sports, protection zones, etc.). - Percentage of operators and users informed about these rules. - Number of infringements recorded and sanctions applied.	- Clearer rules governing the use of coastal and marine areas for tourism purposes. - Reduction of use conflicts between tourism, fisheries and conservation. - Increased respect for sensitive areas and wildlife.	SHORT TERM
7.2.8	Prepare specific regulations for whale and marine wildlife watching.	- LMBO - MoTE - MALFF	- Regulations on whale and marine wildlife watching approved. - Number of operators licensed for whale watching activities. - Number of observation trips conducted in compliance with established standards.	- Whale watching developed as a flagship sustainable tourism product. - Minimised impacts of vessels on whales, dolphins and other marine species. - Strengthened reputation of	SHORT TERM

			- Monitoring of stress indicators or behavioural changes in cetaceans.	Timor Leste in responsible whale and marine wildlife watching.	
7.2.9	Map and promote Timor Leste's priority dive sites, linked to the respective sustainable practices for the sector.	- MoTE	- Number of dive sites mapped and classified (including difficulty level and ecological sensitivity). - Number of maps, guides and digital platforms produced and disseminated. - Number of operators adopting site specific sustainable practices. - Number of visiting divers per year at mapped sites.	-- Timor Leste included in international networks of premium diving destinations. - Ordered and sustainable use of key dive sites. - Improved safety and quality of the diving experience.	SHORT TERM
7.2.10	Train and build capacity in rescue techniques and first aid, including the professional training of lifeguards.	- MoTE - MoH - Partners to be identified	- Number of lifeguard and first aid training courses delivered. - Number of certified lifeguards. - Number of beaches with lifeguards present during peak seasons. - Variation in fatal and nonfatal incidents on supervised beaches.	- Basic water rescue system implemented on priority beaches. - Reduction in the number of drownings and serious accidents along the coastal zone. - Increased confidence of residents and tourists in using beaches.	SHORT TERM
7.2.11	Map and promote Timor Leste's mangrove forests, linked to sustainable practices for their visitation and use.	- LMBO - Marine Biodiversity Survey and Study Mechanism - MALFF - MoTE - MOPW	- Number of mangrove areas mapped and classified for sustainable visitation. - Number of interpretation centres or mangrove trails established. - Number of visitors to mangrove areas. - Number of training sessions on good practices for visiting mangroves.	- Mangroves integrated into the ecotourism offer (guided tours, environmental education). - Sustainable use of mangroves without compromising their ecological functions. - Increased awareness of the importance of mangroves.	MEDIUM TERM
7.2.12	Invest in diving tourism development strategies, including appropriate information centres and basic support infrastructure for this activity, namely access pontoons for recreational boats transporting divers and hyperbaric chambers for decompression.	- MoTE - MOPW - Partners to be identified	- Number of diving information and support centres established. - Number of pontoons or access infrastructure for recreational boats constructed. - Number of hyperbaric chambers installed and operational. - Number of diving incidents receiving an adequate response (use of chamber, evacuation).	- Improved safety and logistical conditions for diving tourism. - Increased attractiveness of Timor Leste for international divers. - Strengthened partnerships between the health, tourism and private sectors.	MEDIUM TERM
7.2.13	Establish standardised norms for diving operations and conduct inspections of dive operators, ensuring compliance with safety measures and the proper use of clean gases such as oxygen, nitrogen or helium.	- MoTE - Partners to be identified	- Number of technical and safety standards for diving operations approved. - Percentage of dive operators licensed and audited annually. - Number of inspections carried out and non-compliances detected. - Number of diving incidents attributable to safety failures (with a decreasing trend as the objective).	- Diving sector regulated and safe, aligned with international good practice standards. - Reduced risks for recreational and professional divers. - Improved reputation of Timor Leste as a safe diving destination.	MEDIUM TERM
7.2.14	Create a certification programme for hotels, eco-tourism resorts, local	- MoTE - MoCI	- Number of sustainability certification criteria and labels defined.	- Increased supply of certified sustainable accommodation and	MEDIUM TERM

	accommodation and tour operators that follow sustainable practices.		<ul style="list-style-type: none"> - Number of accommodation units and operators certified. - Percentage of tourist beds certified as sustainable. - Number of promotional campaigns for certified establishments. 	<ul style="list-style-type: none"> tourism services. - Market differentiation for units adopting good environmental and social practices. - Overall incentive for improved environmental performance across the sector. 	
7.2.15	Develop an integrated waste collection and management plan, including the provision of collection bins and proper waste handling systems.	- MoSA	<ul style="list-style-type: none"> - Number of waste collection points installed in coastal and tourism areas. - Quantity of waste collected and properly treated. - Percentage of beaches with functional waste management systems. - Number of awareness campaigns conducted on waste reduction. 	<ul style="list-style-type: none"> - Reduction of visible litter on beaches, marinas and coastal fronts. - Improved public health and enhanced image of tourism destinations. - Increased recycling and reuse of waste generated by tourism activities. 	MEDIUM TERM
7.2.16	Support the private sector in providing beach infrastructure, including access transport, parking facilities, signage, supporting catering services, and designated areas for sunbathing, swimming and other activities, including water sports.	- MoTE - MoCI - MTT	<ul style="list-style-type: none"> - Number of public private partnerships established for beach infrastructure. - Number of beaches with improved access, parking and support services. - Number of catering establishments and complementary services created. - Level of user satisfaction with the infrastructure (surveys). 	<ul style="list-style-type: none"> - More comfortable and organised beach experience for tourists and residents. - Increased private investment in beach services and facilities. - Reduction of unregulated impacts on the coastal environment. 	SHORT/MEDIUM TERM
7.2.17	Promote beach sports, such as beach football and volleyball, as well as water sports such as windsurfing, kitesurfing and kayaking.	- MoTE - MYSAC	<ul style="list-style-type: none"> - Number of beach sports events and tournaments organised per year. - Number of regular participants in beach and water sports. - Number of coastal sports clubs or associations established. - Number of young athletes supported through development programmes. 	<ul style="list-style-type: none"> - Coastal areas revitalised through sports and recreational activities. - Promotion of healthy lifestyles and reinforcement of national maritime identity. - Potential for sporting events to serve as tourism attractions. 	SHORT TERM
7.2.18	Create beach animation activities, particularly for families with children, to strengthen national maritime identity, including nature conservation activities such as the protection of species like turtles.	- MoTE - MYSAC	<ul style="list-style-type: none"> -- Number of beach animation programmes implemented (environmental education, games, guided visits). - Number of children and families participating. - Number of specific activities focused on the protection of marine species (for example, turtles). - Level of children's knowledge on conservation after participating in the activities. 	<ul style="list-style-type: none"> - Beaches used as educational and recreational spaces for families. - Increased environmental awareness among younger generations. - Promotion of iconic species (turtles) as symbols of conservation. 	MEDIUM TERM

7.3 NATURE TOURISM

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
7.3.1	Associate the declaration and definition of management plans for protected areas with the promotion of sustainable tourism and ecotourism.	- LMBO - MoTE - MALFF	- Number of protected areas with management plans that integrate sustainable tourism. - Number of ecotourism products developed within protected areas. - Number of visitors to protected areas, with defined carrying capacity limits. - Revenue generated by ecotourism in protected areas (fees, services).	- Protected areas managed with a balance between conservation and tourism use. - Revenue generation to support biodiversity management and conservation. - Creation of local employment opportunities in ecotourism.	MEDIUM TERM
7.3.2	Support tour operators and hospitality, catering and other cross cutting sectors with training, capacity building and enabling conditions for the adoption of sustainable tourism practices.	- MoTE - MoCI - Partners to be identified	- Number of operators and hospitality units trained in sustainable nature tourism practices. - Percentage of units implementing environmental management systems. - Number of good practices adopted (energy efficiency, water management, waste reduction, local sourcing). - Environmental performance assessment of supported operators.	- Nature tourism sector with a reduced ecological footprint. - Integration of sustainability criteria into accommodation and service operations. - Creation of competitive advantages for operators committed to environmental responsibility.	MEDIUM TERM
7.3.3	Promote hotels, guesthouses and family-based accommodation, creating conditions for their expansion in an ecologically sustainable manner.	- MoTE	- Number of nature tourism accommodation units classified as ecological. - Number of renovations or new constructions applying sustainability criteria in inland areas of the country. - Average occupancy rate of family run and ecological accommodation units. - Percentage of products and services sourced locally by these units.	- Decentralised network of sustainable accommodation across the national territory. - Development of tourism in rural and mountainous areas, generating benefits for local communities. - Promotion of family hospitality and local cultural identity.	MEDIUM TERM
7.3.4	Regulate and support the public and private transport sector to facilitate mobility within the country.	- MTT	- Number of public transport routes serving nature tourism destinations. - Number of private operators providing regulated tourist transport services. - Number of tourists using collective transport to access nature areas. - Level of satisfaction regarding transport accessibility and safety.	- Improved access to national parks, mountains, hot springs and other natural destinations. - Reduced reliance on individual transport and lower carbon footprint of travel. - Integration of transport within sustainable tourism strategies.	SHORT/MEDIUM TERM
7.3.5	Regulate entry into protected areas and natural parks, including the definition of appropriately calibrated	- LMBO - MoTE - MALFF - MoF	- Number of regulations approved regarding access and entry fees to protected areas. - Number of visitors per protected area	- Partial conservation financing system based on nature tourism. - Control of visitor flows to avoid ecological overload.	MEDIUM TERM

	tourism fees, including at the point of entry into the country.	- PCM	and total value of fees collected. - Percentage of revenue reinvested in the management and conservation of protected areas. - Level of visitor acceptance of the fees (surveys).	- Transparency and legitimacy in the use of tourism fees for conservation purposes.	
7.3.6	Define and develop trails and irrigation channels (<i>Jevadas</i>) for “Mountain to Sea” adventure tourism in inland areas of the country, with the strategic support of local communities at different points along the routes.	- MoTE - MoSA - Municipal Authorities - MPSI - MOPW	- Kilometres of trails and irrigation channels signposted and maintained. - Number of trails certified with different levels of difficulty. - Number of hikers and adventure tourists using the trails. - Number of communities economically benefiting from services linked to the trails (guiding, accommodation, food services).	- National network of adventure trails showcasing natural and cultural landscapes. - Increase in hiking and mountaineering tourism in rural areas. - Generation of supplementary income for local families.	MEDIUM TERM
7.3.7	Establish Tourist Information Centres in different parts of the country, making use of existing institutions, particularly Marine Research and Education Centres.	- MoTE - Marine Research and Education Centres (Articulate with Pillar 2: 2.2)	- Number of Tourist Information Centres established or adapted, providing information on marine and coastal tourism. - Number of visitors served at the centres per year. - Number of informational and educational materials made available. - Level of visitor satisfaction with the information received.	- Qualified information points to guide tourists throughout the country, including marine and coastal tourism. - Stronger link between science, education and nature/marine tourism. - Better distribution of visitors across different destinations, reducing pressure on a limited number of sites.	MEDIUM TERM
7.3.8	Support the establishment of a “Mountain to Sea” network of private accommodation across various points of national interest.	- MoTE	- Number of private accommodation units (homestays, guesthouses) supported, particularly in mountain areas and near water resources. - Number of localities with an organised accommodation network. - Number of overnight stays in private accommodation per year. - Income generated by host families.	- Accessible and widely distributed accommodation in emerging nature tourism destinations, linking mountain and coastal areas. - Increased cultural exchange between visitors and local communities. - Wider distribution of tourism’s economic benefits.	MEDIUM TERM
7.3.9	Train and build the capacity of individuals to support adventure tourism activities, including hiking, climbing, diving and snorkelling, among others.	- MoTE - Partners to be identified	- Number of adventure tourism guides trained and certified. - Number of training programmes delivered in safety, navigation and remote first aid. - Number of adventure tourism operators formally registered.	- Professional and safe provision of adventure tourism activities. - Greater ability to capture specialised niche markets (trekking, climbing, diving, etc.). - Reduction of accidents and improvement of the destination’s reputation.	MEDIUM TERM

7.3.10	Invest in the signage of areas of interest and accommodation facilities across the country.	- MoTE	- Number of signs installed indicating natural attractions and accommodation. - Percentage of key nature attractions with adequate signage. - Number of complaints related to lack of signage (downward trend expected). - Ease of navigation for tourists (survey results).	- Improved ease of travel and discovery of nature destinations. - Reduced risk of tourists getting lost in remote areas. - More balanced distribution of visitors between well-known and emerging destinations.	MEDIUM TERM
7.3.11	Combine cetacean tourism with other ecological activities (for example, diving, birdwatching, cultural tours and coffee experiences).	- MoTE - Partners to be identified	- Number of integrated tourism packages combining multiple ecological activities. - Number of operators offering combined products. - Number of tourists purchasing integrated nature tourism packages. - Average revenue per tourist for integrated products (compared with single-activity products).	- Longer average length of stay and higher average expenditure per tourist. - Better use of synergies between marine and land-based tourism. - Diversified visitor experience integrating biodiversity, culture and local products (for example, coffee).	MEDIUM TERM
7.3.12	Target environmentally conscious travellers through recognised global sustainability certifications.	- MoTE - Partners to be identified	- Number of global sustainability certifications obtained by destinations or operators in Timor-Leste. - Number of marketing campaigns specifically targeting environmentally conscious travellers. - Percentage of tourists who identify as “ecotourists” or “low impact” travellers. - Growth rate of the eco-tourism segment in the country.	- Positioning of Timor-Leste as a reference destination for environmentally conscious travellers. - Attraction of niche markets willing to pay for sustainable experiences. - Continued incentive for improving the environmental performance of the tourism sector.	MEDIUM TERM

PILLAR 8: LIVING RESOURCES EXPLOITATION

8.1 FISHERIES AND AQUACULTURE

STRATEGIC OBJECTIVES

- **Protect marine biodiversity and ensure that fish stocks and other marine and aquatic species are maintained at sustainable levels and within a healthy environment.**
- **Incorporate climate change adaptation and mitigation measures into the management of marine and coastal resources, considering sea level rise, ocean acidification and changes in species migration patterns.**
- **Integrate a gender perspective into all initiatives, recognising and promoting the fundamental role of women in artisanal fisheries, processing, marketing and marine resource management, and ensuring their equitable access to benefits, training and decision-making.**
- **Invest in science, research and surveys, including within the framework of the Marine Biodiversity Survey and Study of Timor-Leste, to support responsible fisheries and aquaculture management.**

- Ensure structured articulation between scientific studies and the traditional knowledge of local communities.
- Implement sustainable fisheries and aquaculture management programmes through responsible practices that prevent overfishing and the destruction of marine and aquatic habitats.
- Effectively combat Illegal, Unreported and Unregulated (IUU) Fishing.
- Strengthen monitoring, control and surveillance systems.
- Reinforce regional and international cooperation for the shared management of migratory species, the fight against illegal, unreported and unregulated fishing, the sharing of scientific data and best practices, and the harmonisation of conservation measures.
- Engage and support coastal communities whose main activity is related to marine resources, promoting their increased participation in management, protection and conservation decisions.
- Study mechanisms for joint management of marine resources in specific areas, drawing on comparative experiences such as Tonga and the Solomon Islands, with a view to sharing authority, knowledge and responsibility with communities.
- Invest in building the capacity of local institutions for the development and enforcement of resource use rules, including the recognition and implementation of Tara Bandu as a formal instrument, in coordination with municipal authorities.
- Develop outreach campaigns for communities on the benefits of sustainable practices and the importance of marine resources for food security and the healthy development of the Timorese people.
- Review and modernise the legal framework governing fisheries and aquaculture, aligning it with current development needs, emerging environmental and biodiversity concerns, international commitments and the objectives of the Blue Economy.
- Strengthen the capacities of local fishers to improve knowledge and access to know-how, technology and equipment.
- Coordinate the development of the fisheries sector with the development of port infrastructure and its appropriate components.
- Improve aquaculture infrastructure to increase production, alongside training and support for the development of this economic activity.
- Invest in the export market for fishery and aquaculture products.
- Invest in the establishment of fish markets and landing sites, equipped with appropriate refrigeration systems, enabling the State to enforce quality and food safety standards and ensure reasonable pricing, while providing adequate sector monitoring.
- Increase the contribution of fish and aquatic foods to improved nutritional outcomes, incorporating them into government nutrition programmes and recognising improved nutrition as a key outcome of fisheries management.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
8.1.1	Promote research on marine biodiversity, fish population dynamics and the impacts of fishing activities, using scientific data to inform management policies and practices.	<ul style="list-style-type: none"> - MALFF - Timorese lead institution for the Survey and Study process (to be identified and formally established) - Partners to be identified 	<ul style="list-style-type: none"> - Number of scientific studies completed per year on marine biodiversity and fish population dynamics. - Number of marine species assessed regarding their conservation status. 	<ul style="list-style-type: none"> - Updated scientific baseline to support fisheries and aquaculture management decisions. - Adoption of management measures 	SHORT/MEDIUM TERM

			- Number of management recommendations arising from scientific research integrated into public policies.	(quotas, closed seasons, exclusion zones) grounded in scientific evidence.	
8.1.2	Recognise communities as “holders, providers and recipients of knowledge” through mechanisms that link scientific programmes and traditional knowledge for the development of the fisheries sector.	- MALFF - Timorese lead institution for the Survey and Study process (to be identified and formally established) - Municipal Authorities - Governance partners	- Number of formal mechanisms (committees, forums, protocols) established to link scientific programmes and traditional knowledge. - Number of annual knowledge co-production meetings held between scientists and communities.	- Systematic integration of traditional knowledge into fisheries management policies and plans. - Greater community acceptance of conservation and management measures.	SHORT TERM
8.1.3	Document, revitalise and support traditional fishing practices and national ecological knowledge, recognising them as part of the nation’s cultural heritage and as a vital asset for sustainable management.	- MALFF - Timorese lead institution for the Survey and Study process (to be identified and formally established) - Partners to be identified (Articulate with Pillar 2: 2.2; 2.3.1, 2.3.2, 2.3.4, 2.3.5)	- Number of traditional fishing practices documented and recorded. - Number of programmes/projects promoting the revitalisation of these practices. - Symbolic and/or formal recognition of traditional practices, including through other measures under the Plan, such as their promotion and dissemination in the future Museum of the Sea and in Marine Research and Education Centres.	- Fishing cultural heritage recognised and preserved. - Sustainable traditional practices incorporated into community-based resource management plans. - Traditional fishing practices formally acknowledged within national institutions.	SHORT/MEDIUM TERM
8.1.4	Develop a database on Timor-Leste’s fish stocks, spawning and breeding areas, and sustainable harvest levels of commercial species, in conjunction with the mapping of Key Biodiversity Areas, in coordination with the Marine Biodiversity Survey and Study of Timor-Leste.	- MALFF - Timorese lead institution for the Survey and Study process (to be identified and formally established) - Partners to be identified (Articulate with Pillar 1: 1.2)	- Existence and operationalisation of a national database on fish stocks. - Number of commercial species with defined sustainable harvest levels. - Number of spawning and breeding areas mapped and integrated into geographic information systems.	- Fisheries planning based on consolidated data on stocks and critical habitats. - Reduced risk of overexploitation of priority commercial species.	MEDIUM TERM
8.1.5	Strengthen enforcement of fisheries and aquaculture activities and implement monitoring systems to ensure compliance with applicable laws and regulations.	MALFF	- Number of annual inspections of fisheries and aquaculture activities. - Number of infringements detected and sanctioned. - Geographic coverage of monitoring systems (proportion of coastline/fishing areas covered).	- Increased compliance with fisheries and aquaculture legislation. - Reduction of illegal, unreported and unregulated fishing in national waters.	MEDIUM TERM
8.1.6	Review and regulate fishing licence fees, in line with scientific studies undertaken, ensuring they are sustainable and science based.	MALFF	- Number of fishing licence fee reviews conducted based on scientific studies. - Proportion of licences issued in accordance with sustainable fishing capacity.	- Fee structure aligned with the sustainability of fish stocks. - Improved public revenue collection without compromising resource conservation.	SHORT TERM

8.1.7	Create permanent consultation mechanisms with authorities and local communities within the fisheries and aquaculture sector.	<ul style="list-style-type: none"> - MALFF - Municipal Authorities and local communities 	<ul style="list-style-type: none"> - Number of permanent consultation councils/committees established. - Number of consultation meetings held per year. 	<ul style="list-style-type: none"> - Continuous community participation in decision-making on fisheries and aquaculture. - Increased legitimacy and compliance with management measures. 	SHORT TERM
8.1.8	Offer training programmes for fishers and coastal communities on sustainable fishing practices, resource management and conservation.	<ul style="list-style-type: none"> - MALFF - Municipal Authorities and local communities - Partners to be identified 	<ul style="list-style-type: none"> - Number of training sessions delivered per year. - Number of participants trained (disaggregated). 	<ul style="list-style-type: none"> - Adoption of more sustainable fishing practices and improved resource management. - Strengthened local technical capacity for conservation and sustainable use. 	SHORT TERM
8.1.9	Develop comparative studies to support the development of community-based management of marine resources in specific areas.	<ul style="list-style-type: none"> - MALFF - Timorese lead institution for the Survey and Study process (to be identified and formally established) - Partners to be identified 	<ul style="list-style-type: none"> - Number of comparative studies completed (for example, Tonga, Solomon Islands, others). - Number of recommendations from these studies integrated into policies or pilot projects. 	<ul style="list-style-type: none"> - Community-based management models adapted to the Timorese context. - Implementation of pilot co-management initiatives based on international best practices. 	SHORT TERM
8.1.10	Define capacity-building programmes for local institutions to support the development and enforcement of resource use rules, including the recognition and implementation of Tara Bandu as a formal instrument, in coordination with municipal authorities.	<ul style="list-style-type: none"> - MALFF- - Tara Bandu monitoring entity - Partners to be identified 	<ul style="list-style-type: none"> - Number of local institutions strengthened through capacity-building programmes. - Number of local Tara Bandu regulations formally recognised and enforced. 	<ul style="list-style-type: none"> - Strengthened local institutional capacity for marine resource management. - Wider use of Tara Bandu as a formal and operational conservation instrument. 	SHORT TERM
8.1.11	Establish partnerships and international cooperation projects for the sustainable management and implementation of the fisheries sector, with particular emphasis on high seas and international waters.	<ul style="list-style-type: none"> - MALFF - MFAC 	<ul style="list-style-type: none"> - Number of international cooperation agreements signed and active. - Number of joint projects implemented with international partners. 	<ul style="list-style-type: none"> - Increased access to funding, technical knowledge and technologies for sustainable management. - Improved oversight and management of fishing activities on the high seas and in associated international waters. 	MEDIUM TERM
8.1.12	Develop national capacity for high seas and international waters fishing, including vessels, technology and equipment, as well as training on international regulations, particularly UNCLOS.	<ul style="list-style-type: none"> - MALFF 	<ul style="list-style-type: none"> - Number of vessels equipped for high seas operations. - Number of technicians, fishers and officials trained in international regulations (including UNCLOS). 	<ul style="list-style-type: none"> - Increased sustainable high seas catches, reducing pressure on coastal zones. - Compliance with international standards governing high seas fishing. 	MEDIUM/LONG TERM
8.1.13	Accede to and implement applicable international and regional legal instruments relating to fisheries access and the export of fish and fishery products, such as the 1995 United Nations Fish Stocks Agreement (on straddling and highly migratory stocks) and CITES, to	<ul style="list-style-type: none"> - MALFF - MFAC 	<ul style="list-style-type: none"> - Number of conventions/agreements ratified and incorporated into the national legal framework. - Degree of implementation (action plans, regulations adopted, reports submitted). 	<ul style="list-style-type: none"> - Harmonisation of the national fisheries regime with international standards. - Enhanced protection of migratory and endangered species. 	MEDIUM TERM

	ensure sustainable fishing, particularly on the high seas.				
8.1.14	Promote international cooperation with other countries and international organisations on sustainable fisheries issues that transcend national boundaries.	- MALFF - MFAC - MoD	- Number of regional and international initiatives in which Timor-Leste participates. - Number of joint enforcement operations or information-sharing actions undertaken.	- Reduction of cross-border illegal fishing. - Improved shared management of migratory fish stocks.	MEDIUM TERM
8.1.15	Analyse and assess the gaps in the current legal framework of the fisheries and aquaculture sector and develop a more modern framework adapted to present circumstances, also drawing on traditional knowledge, balancing economic development with the protection of ecosystems and biodiversity.	- MALFF - Partners to be identified	- Number of legal diagnostic studies completed. - Approval of the National Fisheries Strategy 2025-2035, including strategies that support a sustainable increase in fish production while strengthening resilience to climate impacts. - Adoption of a new fisheries and aquaculture legislative package (laws, regulations, decrees).	- Updated, coherent and enforceable legal framework aligned with international commitments. - Clear definition of roles, rights and responsibilities of all sector stakeholders. - National Fisheries Strategy 2025-2035 under implementation.	SHORT TERM
8.1.16	Define, in line with the new science-based legal framework, updated regulations that include: catch limits aimed at restoring marine populations; fishing exclusion zones in accordance with marine protected areas; sustainable practices and methods that minimise ecosystem degradation and bycatch of non-target species; vessel types and designated fishing zones; and licensing regulations, with particular emphasis on the allocation of commercial licences to foreign vessels, sanctions and fines, among others.	- MALFF - Timorese lead institution for the Survey and Study process (to be identified and formally established) - Partners to be identified (Articulate with Pillar 3: 3.2)	- Number of updated regulations adopted and published. - Number of species with defined and monitored catch limits. - Number of marine protected areas with implemented fishing restrictions.	- Reduction of overfishing and bycatch of non-target species. - Recovery of vulnerable marine populations.	MEDIUM TERM
8.1.17	Review fisheries subsidies, in line with the entry into force of the WTO Agreement on the review and reform of harmful fisheries subsidies, to guide the country in implementing the Agreement.	- MALFF	- Number of subsidies reviewed or discontinued because they are harmful to sustainability. - Proportion of subsidies directed towards sustainable activities (e.g., improved selectivity, monitoring).	- Reduced economic incentives for overfishing. - Reorientation of public support towards sustainable practices and technologies.	MEDIUM TERM
8.1.18	Introduce a sustainable fisheries certification system and promote responsible consumption.	- MALFF	- Number of fisheries certified or in the process of certification.	- Increased availability of sustainably certified fishery products in domestic and export markets.	MEDIUM TERM

			- Number of awareness campaigns conducted on responsible consumption.	- More informed and discerning consumers regarding the sustainable origin of seafood products.	
8.1.19	Develop port and logistical infrastructure to support the fisheries sector, including landing and mooring sites for fishers.	- MALFF - MPSI - MOPW - MTT	- Number of ports, piers and landing sites constructed or rehabilitated. - Fish storage and handling capacity (tonnes per day).	- Improved landing, preservation and distribution conditions for fish products. - Reduction of post-harvest losses and improved product quality.	MEDIUM TERM
8.1.20	Develop alternative fish preservation processes, such as salting, smoking or drying.	- MALFF - MoCI	- Number of traditional or improved preservation units/processes implemented. - Proportion of fish preserved through alternative methods in relation to total production.	- Increased shelf life of fish products. - Greater product diversification and value-added opportunities within communities.	MEDIUM TERM
8.1.21	Support sustainable fishing through measures that prevent overfishing and ensure compliance with regulations aimed at protecting biodiversity, particularly in protected areas.	- MALFF	- Number of support projects for sustainable fisheries (selective gear, green financing lines, etc.). - Level of compliance with restrictions in protected areas (measured through enforcement activities).	- Reduction of negative fishing impacts on sensitive habitats and protected areas. - Maintenance of marine ecosystem integrity alongside compatible fishing activity.	MEDIUM TERM
8.1.22	Map all vulnerable coastal areas to prevent their development or conversion into aquaculture or salt production in sensitive zones, and to restore non-productive areas back into natural systems.	- MALFF - MPSI - MoCI	- Percentage of coastline mapped in terms of ecological vulnerability. - Number of aquaculture/salt production projects redirected or refused based on the mapping results.	- Prevention of conversion of critical ecosystems into degraded production areas. - Restoration of already degraded areas into more resilient natural systems.	MEDIUM TERM
8.1.23	Provide training courses on aquaculture techniques, disease prevention and sustainable practices, as well as programmes that offer access to tools and know-how to enhance skills and knowledge in aquaculture.	- MALFF - MPSI - FDCH - MoCI	- Number of aquaculture training courses delivered. - Number of aquaculture farmers and technicians trained (disaggregated).	- Increased productivity and reduced mortality in aquaculture systems. - Adoption of environmentally responsible aquaculture practices.	MEDIUM TERM
8.1.24	Develop different types of aquaculture activities in freshwater, brackish and marine environments.	- MALFF	- Number of aquaculture projects in freshwater, brackish and marine waters in operation. - Diversification of farmed species. - Number of species cultivated.	- Greater diversity of aquaculture products available for domestic markets and export. - Reduced pressure on wild stocks through a diversified aquaculture supply.	MEDIUM TERM
8.1.25	Allocate additional funding for the construction and maintenance of aquaculture facilities, such as hatcheries and nurseries, and facilitate access to finance.	- MALFF	- Annual amount of public and/or concessional funding allocated to aquaculture. - Number of new facilities (hatcheries, nurseries) constructed or rehabilitated.	- Sustainable expansion of installed aquaculture capacity. - Greater inclusion of small-scale producers in the aquaculture sector through credit mechanisms.	MEDIUM TERM
8.1.26	Develop studies and research to support aquaculture activities,	- MALFF and other relevant ministries - Partners to be identified	- Number of technical studies completed on water quality, nutrition, disease	- Reduced technical risks (disease outbreaks, water supply failures) in	MEDIUM TERM

	particularly to provide solutions to constraints affecting its development, including water quality and availability, competition over land and water use, disease prevention, feed inputs and species development.		prevention and suitable species. - Number of technical recommendations applied in aquaculture projects.	aquaculture enterprises. - Improved feed efficiency and welfare of farmed species.	
8.1.27	Restructure the Liquiçá Aquaculture Training Centre and initiate training programmes for fisheries technicians, fishers and aquaculture farmers.	- MALFF and other relevant ministries - Partners to be identified	- Completion of the restructuring and modernisation plan for the centre. - Number of courses delivered and number of trainees trained annually at the centre.	- Centre operating as a national reference for aquaculture training. - Increased availability of qualified technicians and professionals in the sector.	MEDIUM TERM
8.1.28	Improve existing water supply and distribution systems to ensure a consistent and unpolluted water supply for aquaculture activities.	- MALFF - MOPW	- Number of water supply systems for aquaculture constructed or upgraded. - Proportion of aquaculture units with access to water of adequate and consistent quality.	- More stable and resilient aquaculture operations in the face of variations in water availability. - Lower incidence of health problems associated with contaminated water.	MEDIUM TERM
8.1.29	Promote awareness campaigns on the nutritional value of fish, encouraging not only supply but also informed demand.	- MALFF - MoH - MSSJ - Governance partners	- Number of awareness campaigns conducted per year. - Proportion of the population with basic knowledge of the nutritional benefits of fish (measured through surveys).	- Increased informed demand for fish and nutritious aquatic foods. - Gradual improvement in nutritional indicators linked to animal protein consumption.	SHORT TERM
8.1.30	Invest in markets, fish landing sites, producer–consumer linkages and distribution centres, including investment in cold storage facilities, freezers, refrigerated warehouses and onboard freezing capacity for high seas fishing.	- MALFF - MoCI	- Number of markets, landing sites and distribution centres constructed or modernised. - Installed cold storage capacity (cold rooms, freezers, refrigerated warehouses, onboard freezing) in tonnes.	- Functional cold chain reducing post-harvest losses and maintaining product quality. - Improved access for urban and rural consumers to fresh and safe fish.	MEDIUM TERM
8.1.31	Conduct studies to promote high seas fishing and the sustainability of export markets.	- MALFF - Partners to be identified	- Number of economic and environmental feasibility studies for high seas fishing completed. - Number of new export markets identified that meet sustainability criteria.	- Clear national strategy for the sustainable expansion of high seas fishing. - Diversification of export revenues from fishery products.	SHORT TERM
8.1.32	Strengthen institutional cooperation at national level, ensuring cross-sectoral interventions and collaboration with multiple partners, particularly the private sector.	- Whole of Government	- Number of interministerial mechanisms and coordination platforms established. - Number of public-private initiatives implemented in the fisheries and aquaculture sector.	- More coherent and aligned management actions across sectors (environment, health, trade, infrastructure). - Increased responsible private investment in the sector.	SHORT TERM
8.1.33	Develop educational and training materials highlighting the nutritional value of fish and aquatic foods, with	- MALFF - MoH - MSSJ	- Number of educational materials produced (guides, leaflets, radio programmes, videos, etc.).	- Increased knowledge of the importance of fish in maternal and child nutrition.	SHORT TERM

	particular focus on women of reproductive age and infants in the first 1,000 days of life.	- Governance partners	- Number of beneficiaries reached, with a focus on women of reproductive age and caregivers of children in the first 1,000 days.	- Greater inclusion of fish in the diets of vulnerable groups.	
8.1.34	Ensure that fisheries management outcomes consider the nutritional benefits for the population of Timor-Leste, promoting the sustainable harvesting and consumption of highly nutritious oily pelagic fish (for example, sardines, mackerel, flying fish and needlefish).	- MALFF - MoH - MSSSI - Governance partners	- Proportion of oily pelagic fish (sardines, mackerel, flying fish, needlefish) in total catches destined for the domestic market. - Annual per capita consumption of oily pelagic fish in Timor-Leste.	- Alignment between fisheries management objectives and public nutrition targets. - Improvement in malnutrition and micronutrient deficiency indicators associated with increased intake of fish rich in omega-3 and other essential nutrients.	SHORT TERM

8.2 MARINE BIOTECHNOLOGY

STRATEGIC OBJECTIVES

- Monitor international developments in the field of marine biotechnology and assess the challenges and opportunities facing this sector.
- Promote the sustainable use of national marine resources, while beginning to build national capacity to explore their present and future potential.
- Contribute to science and innovation, particularly through strategic partnerships in key development areas such as health, food and nutrition, agriculture and fertilisers, and biofuels.
- Develop a clear regulatory framework for bioprospecting that ensures benefits are shared fairly with the nation.
- Promote international partnerships with leading research institutions and biotechnology companies.
- Promote and facilitate the development of biotechnology that contributes to the restoration of marine ecosystems.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
8.2.1	Develop scientific research by integrating specific objectives focused on biotechnology into the “Marine Biodiversity Survey and Study of Timor-Leste”, to promote and invest in Research and Development for biotechnological applications.	- MHESC - Timorese lead institution for the Survey and Study process (to be identified and formally established) - Marine Research and Education Centres - ICT - Governance partners to be identified (Articulate with Pillar 1: 1.2)	- Number of specific marine biotechnology objectives formally included in the Marine Biodiversity Survey and Study. - Number of marine biotechnology research projects or sub-projects derived from the Survey. - Number of scientific publications, technical reports or laboratory protocols produced based on Survey data. - Number of marine species or strains identified with biotechnological potential (probiotics, bioactive	- Systematic integration of marine biotechnology into the national biodiversity research agenda. - Robust scientific database to support future biotechnological applications (aquaculture, health, energy, cosmetics). - Increased national capacity to identify and valorise Timor-Leste’s marine genetic heritage.	MEDIUM TERM

			compounds, enzymes, etc.). – Number of national institutions involved in the biotechnology component of the Survey.		
8.2.2	Encourage higher education and specialised training for national professionals in marine biotechnology, as well as training for professionals in support areas essential to the development of this sector.	<ul style="list-style-type: none"> - MHESC - Timorese lead institution for the Survey and Study process (to be identified and formally established) - Marine Research and Education Centres - ICT - Universities and research centres - MPSI - FDCH - Governance partners to be identified <p>(Articulate with Pillar 2: 2.2)</p>	<ul style="list-style-type: none"> – Number of scholarships awarded to Timorese students in marine biotechnology and related fields (marine biology, genetics, microbiology, bioinformatics, etc.). – Number of national graduates per year in areas directly relevant to marine biotechnology. – Number of short technical training courses delivered (laboratory techniques, biosafety, data management, etc.) for technicians and professionals. – Percentage of graduates who return and work in national institutions (universities, research centres, ministries, private sector). – Number of academic cooperation agreements established with foreign universities and research centres in marine biotechnology. 	<ul style="list-style-type: none"> – Creation of an initial core group of Timorese specialists in marine biotechnology and supporting disciplines. – Reduced dependence on foreign consultants for biotechnology research and development. – Strengthened national higher education and research institutions in the marine sector. 	SHORT TERM
8.2.3	Develop international cooperation and strategic partnerships to bring innovation in marine biotechnology to Timor-Leste, particularly with leading research institutions and biotechnology companies.	<ul style="list-style-type: none"> - Timorese lead institution for the Survey and Study process (to be identified and formally established) - Marine Research and Education Centres - Governance partners to be identified <p>(Articulate with Pillar 1: 1.2 and Pillar 2: 2.2)</p>	<ul style="list-style-type: none"> – Number of international cooperation agreements signed in the field of marine biotechnology (MoUs, protocols, contracts). – Number of joint research, development or technology transfer projects underway. – Number of technical missions, internships and exchanges (inbound and outbound) conducted annually. – Total value of external funding (grants, donations, private investment) mobilised for marine biotechnology in Timor-Leste. – Number of patents, patent applications or intellectual property agreements involving Timorese institutions. 	<ul style="list-style-type: none"> – Integration of Timor-Leste into international marine biotechnology research networks. – Gradual transfer of technology, laboratory methodologies and regulatory best practices to the country. – Creation of opportunities for joint innovation and economic valorisation of Timorese marine resources. 	MEDIUM TERM

<p>8.2.4</p>	<p>Align Blue Economy legal regimes with marine biotechnology, including the development of a regulatory framework for bioprospecting and fair and equitable benefit-sharing.</p>	<ul style="list-style-type: none"> - LMBO - MHESC - PCM 	<ul style="list-style-type: none"> - Number of legal instruments (laws, decrees, regulations) drafted or revised to integrate marine biotechnology and bioprospecting. - Existence of a specific regulatory framework for access to marine genetic resources and benefit-sharing. - Number of bioprospecting licences issued in accordance with the new legal framework. - Percentage of bioprospecting contracts including fair and equitable benefit-sharing clauses for the State and local communities. - Number of inspections and monitoring actions of bioprospecting activities conducted per year. 	<ul style="list-style-type: none"> - Legal certainty for investors, researchers and the State in the exploration of marine biological resources. - Assurance that economic and scientific benefits from bioprospecting return fairly to Timor-Leste and its communities. - Prevention of biopiracy and misuse of national marine genetic heritage. 	<p>MEDIUM TERM</p>
<p>8.2.5</p>	<p>Establish a dedicated marine biotechnology research programme within the planned Marine Research and Education Centres, with a focus on the development of probiotics for aquaculture.</p>	<ul style="list-style-type: none"> - MHESC - Timorese lead institution for the Survey and Study process (to be identified and formally established) - Marine Research and Education Centres <p>(Articulate with Pillar 1: 1.2 and Pillar 2: 2.2)</p>	<ul style="list-style-type: none"> - Existence of a formal marine biotechnology research programme approved by the Government. - Number of active research lines, with particular emphasis on the development of probiotics for aquaculture. - Number of local probiotic strains isolated, characterised and tested under laboratory and field conditions. - Number of pilot trials conducted in aquaculture units (tanks, ponds, etc.) using nationally developed probiotics. - Variation in aquaculture performance indicators (survival rate, growth rate, disease incidence, water quality) in units applying probiotics. 	<ul style="list-style-type: none"> - Marine Research and Education Centres operating as hubs of innovation in biotechnology applied to aquaculture. - Development of locally sourced probiotic solutions adapted to environmental conditions and farmed species in Timor-Leste. - Increased productivity and resilience of national aquaculture, with reduced reliance on antibiotics and chemical inputs. 	<p>MEDIUM TERM</p>
<p>8.2.6</p>	<p>Encourage the development of the private sector in this area by promoting entrepreneurship and the creation of start-ups focused on marine biotechnology.</p>	<ul style="list-style-type: none"> - Timorese lead institution for the Survey and Study process (to be identified and formally established) - MoCI - MALFF - MoF 	<ul style="list-style-type: none"> - Number of companies or start-ups registered in marine biotechnology or related services (analysis, consultancy, input production, etc.). - Number of entrepreneurship support programmes (incubators, accelerators, innovation competitions) specifically targeted at the Blue Economy/marine 	<ul style="list-style-type: none"> - Emergence of an initial entrepreneurial ecosystem around marine biotechnology in Timor-Leste. - Creation of qualified, high value-added jobs linked to the Blue Economy. - Growing private sector participation across the value chain, from applied research to commercialisation of biotechnological products. 	<p>MEDIUM TERM</p>

biotechnology.
 – Value of financial or fiscal incentives granted to private marine biotechnology initiatives.
 – Number of biotechnological products or services developed domestically (probiotics, algae extracts, biofertilizers, enzymes, etc.) reaching the market or pilot stage.
 – Percentage of supported companies remaining active after three or five years.

PILLAR 9: EXPLORATION OF NON-LIVING RESOURCE AND ENERGY PRODUCTION

9.1 HYDROCARBON PRODUCTION

STRATEGIC OBJECTIVES

- Ensure that the development of the Greater Sunrise fields and other fields (Chuditch, Kelp Deep, etc.) in the Timor Sea delivers long-term benefits for the people of Timor-Leste.
- Promote the long-term economic growth of Timor-Leste, including the necessary economic diversification and improvement of living standards for the Timorese population, as well as developing the capacity to mitigate and adapt to the adverse impacts of climate change.
- Ensure that the potential associated with petroleum resources in the Timor Sea is fully developed for the socio-economic benefit of the people of Timor-Leste, serving as a catalyst for development, job creation and GDP growth.
- Ensure appropriate mitigation of the impacts arising from the development of Petroleum Resources in the Timor Sea on the marine environment and its ecological health.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
9.1.1	Ensure that Environmental Impact Assessment (EIA) studies or Initial Environmental Examination (IEE) processes are carried out before initiating or authorising petroleum activities in the Timor Sea.	- MPMR - ANP - MoTE	- Number of offshore petroleum projects submitted to EIA or IEE prior to authorisation. - Percentage of new offshore projects with an approved EIA/IEE before the commencement of operations. - Average time between submission and approval of EIA/IEE.	- All new offshore petroleum activities subject to a robust prior environmental assessment. - Reduced risk of unforeseen environmental impacts on the marine environment.	LONG TERM
9.1.2	Monitor and assess the impacts arising from petroleum activities in the Timor Sea.	- MPMR - ANP - MoTE	- Number of environmental monitoring programmes in operation (water, sediments, biodiversity, noise, etc.).	- Continuous monitoring system for the impacts of hydrocarbon operations on the marine environment.	LONG TERM

			<ul style="list-style-type: none"> - Number of environmental monitoring reports produced annually. - Level of environmental compliance of operators (percentage of non-compliances corrected within established deadlines). 	<ul style="list-style-type: none"> - Early identification of adverse impacts and adoption of corrective measures. 	
9.1.3	Establish a clear marine environmental remediation mechanism for pollution arising from petroleum development.	<ul style="list-style-type: none"> - MPMR -- ANP - Relevant ministries 	<ul style="list-style-type: none"> - Existence of a specific legal and institutional framework for the remediation of environmental damage (emergency plans, compensation funds, etc.). - Number of pollution incidents for which remediation plans were triggered and completed. - Average response time to marine pollution incidents. 	<ul style="list-style-type: none"> - Operational capacity to ensure a rapid and effective response to accidents and pollution events. - Reduction in the duration and severity of environmental damage caused by petroleum-related incidents. 	LONG TERM
9.1.4	Establish a dedicated economic diversification scheme linked to the development of petroleum resources in the Timor Sea.	<ul style="list-style-type: none"> - MPMR - Relevant ministries 	<ul style="list-style-type: none"> - Existence of an approved economic diversification strategy or plan associated with petroleum revenues. - Percentage of petroleum revenues allocated to economic diversification funds/programmes (agriculture, tourism, Blue Economy, renewable energy, etc.). - Number of diversification projects financed through petroleum sector revenues. 	<ul style="list-style-type: none"> - Reduced structural dependence of the State Budget on hydrocarbon revenues. - Sustainable generation of new non-petroleum economic sectors and employment opportunities. 	LONG TERM
9.1.5	Establish appropriate legislation and policies on Carbon Capture and Storage (CCS) and ensure mechanisms to promote a smooth transition of Timor-Leste towards low-carbon development within the country's broader efforts to achieve cleaner energy.	<ul style="list-style-type: none"> - MPMR - ANP <p>(To be aligned with measures under Pillar 6)</p>	<ul style="list-style-type: none"> - Number of legal instruments and policies adopted on CCS and energy transition. - Number of feasibility studies for CCS projects in offshore and onshore contexts. - Percentage of energy produced from low-emission or renewable sources within the national energy mix (within a defined time horizon). 	<ul style="list-style-type: none"> - Regulatory framework enabling the implementation of CCS technologies associated with hydrocarbon production. - National energy transition roadmap aligned with climate commitments and the economic realities of Timor-Leste. 	LONG TERM
9.1.6	Participate in international discussions on promoting the sustainable development of the petroleum sector and good practices in the exploration of marine resources.	<ul style="list-style-type: none"> - MPMR 	<ul style="list-style-type: none"> - Number of international conferences, forums and processes in which Timor-Leste actively participates each year (interventions, written submissions, etc.). - Number of international recommendations or good practices 	<ul style="list-style-type: none"> - Strengthened voice of Timor-Leste as a Small Island Developing State and Least Developed Country within the energy and climate agenda. - Continuous updating of national practices in line with international 	LONG TERM

			incorporated into national policies and regulations.	standards on safety, environment and climate.	
9.1.7	Ensure harmonisation with existing national legislation, particularly regarding Maritime Spatial Planning and Management and Marine Protected Areas, with a view to safeguarding ecosystems and critical habitats.	<ul style="list-style-type: none"> - MPMR - MoTE - MALFF - MPSI - Other ministries and partners involved in Maritime Spatial Planning and Management and MPAs <p>(Articulate with Pillar 3)</p>	<ul style="list-style-type: none"> - Number of petroleum sector legal instruments reviewed to ensure alignment with the Maritime Spatial Planning framework and the Marine Protected Areas regime. - Percentage of offshore blocks/licences compatible with zones defined under the maritime spatial plan (without undue overlap with critical areas). 	<ul style="list-style-type: none"> - Coherence between hydrocarbon development and the conservation of ecosystems and critical habitats. - Reduced user-conflict between petroleum exploration, fisheries, tourism and marine conservation. 	LONG TERM
9.1.8	Promote the development of gas resources in the Timor Sea and transport them via pipeline to onshore territory in Timor-Leste.	<ul style="list-style-type: none"> - MPMR - Other relevant ministries and partners 	<ul style="list-style-type: none"> - Completion of final investment decisions for the development of gas fields (Greater Sunrise, others). - Kilometres of pipeline constructed and operational between the Timor Sea and the south coast. - Annual volume of gas transported to the territory of Timor-Leste (in cubic metres or equivalent). 	<ul style="list-style-type: none"> - Gas from the Timor Sea processed in facilities located in Timor-Leste, maximising local value addition. - Increase in Gross Domestic Product, employment and technology transfer associated with natural gas activities within national territory. 	LONG TERM
9.1.9	Develop key onshore infrastructure for the collection, treatment and processing of hydrocarbons originating from the Timor Sea.	<ul style="list-style-type: none"> - MPMR - TIMOR GAP, E.P - Other relevant ministries and partners 	<ul style="list-style-type: none"> - Number and capacity of infrastructure facilities constructed or made operational (terminals, LNG units, processing plants, onshore oil and gas pipelines). - Number of direct and indirect jobs created through onshore infrastructure developments. 	<ul style="list-style-type: none"> - Hydrocarbon value chain partially or fully located within Timor-Leste. - Economic and social development of the south coast (infrastructure, services, skilled employment). - National development supported by dividends generated from the sector. 	LONG TERM
9.1.10	Encourage and promote the responsible and rigorous exploration of hydrocarbon resources in the Timor Sea through partnerships between TIMOR GAP, E.P. and international oil companies.	<ul style="list-style-type: none"> - TIMOR GAP, E.P. - MPMR - Other relevant ministries and partners 	<ul style="list-style-type: none"> - Number of partnership agreements and production sharing contracts or joint ventures concluded. - Percentage of Timorese participation (public and private) in exploration and production projects. - Number of contractual clauses incorporating technology transfer, training and local content requirements. 	<ul style="list-style-type: none"> - Increased participation of Timor-Leste in the wealth generated (revenues, know-how, employment). - Operations conducted in accordance with high standards of safety, environmental protection and social responsibility. 	LONG TERM
9.1.11	Promote and regulate the implementation of hydrocarbon exploration projects in the Timor Sea with	<ul style="list-style-type: none"> - ANP - MPMR 	<ul style="list-style-type: none"> - Number of projects assessed, licensed and supervised by the National Petroleum Authority. 	<ul style="list-style-type: none"> - Strong regulatory and supervisory capacity of the State over the petroleum sector. 	LONG TERM

	the involvement of the National Petroleum Authority of Timor-Leste.	- Other relevant ministries and partners	- Number of technical inspections and audits carried out per year. - Percentage of technical and safety non-compliances corrected within the established deadlines.	- Reduced operational risks, accidents and safety failures in offshore and onshore activities.	
9.1.12	Promote innovation and creativity with international partners to advance the application of marine biotechnology in the energy sector in Timor-Leste.	- MPMR (To be aligned with measures under Pillar 8.2)	- Number of research and development projects in marine biotechnology applied to energy (e.g. bioremediation, bioenergy, biotechnological environmental monitoring). - Number of partnerships with international universities, research centres and technology companies.	- Introduction of innovative solutions for environmental impact management and energy efficiency within the petroleum sector. - Initial development of a marine biotechnology niche in Timor-Leste linked to energy and the Blue Economy.	LONG TERM

9.2 RENEWABLE ENERGY

STRATEGIC OBJECTIVES

- **Develop the National Emissions Reduction and Energy Transition Plan in an integrated manner, with the involvement of all sectors of government.**
- **Create the necessary conditions for the transition to renewable energy sources, including the analysis of studies already undertaken for Timor-Leste and, where necessary, the development of new studies through partnerships and international cooperation.**
- **Develop feasibility and sustainability studies on the use of natural gas for electricity generation, while pursuing efforts to adopt energy sources that are less costly and environmentally responsible.**
- **Develop human capacity, infrastructure and facilities to accelerate the renewable energy sector throughout the national territory.**
- **Invest in renewable energy sources to diversify the energy sector, reduce dependence on heavy fuel oils, lower electricity generation costs and protect the environment.**
- **Conduct feasibility studies to assess the country's renewable energy potential, particularly from wind, solar photovoltaic and hydropower sources, which have not yet been fully utilised.**
- **Promote consultations with the national and international private sector to enable appropriate practices and financing mechanisms for the development of renewable energy.**

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
9.2.1	Compile an inventory of all relevant studies on renewable energy in Timor-Leste and ensure policy decision-making based on those studies.	- MPMR - MPSI - MoTE - MoF	- Number of existing studies on renewable energy in Timor-Leste identified and catalogued. - Number of studies technically reviewed (with an opinion or summary note). - Number of policy decisions taken on the basis of those studies (resolutions, orders,	- Consolidated and up-to-date overview of the knowledge available on the country's renewable energy potential. - Better-informed policy decisions, avoiding duplication of efforts and waste of resources. - Clear prioritisation of renewable	SHORT TERM

			<p>directives).</p> <ul style="list-style-type: none"> - Percentage of studies deemed relevant that are effectively used to support decision-making. - Number of national institutions involved in the review and validation of the studies (energy, environment, planning, finance, etc.). 	<p>energy technologies and projects to be developed.</p>	
9.2.2	Promote the scientific foundations supporting research and development in marine renewable energy technologies, including monitoring and evaluation, as well as environmental impact assessment studies.	<ul style="list-style-type: none"> - MPMR - MPSI - MoTE - Governance partners to be identified 	<ul style="list-style-type: none"> - Number of funded research and development projects in marine renewable energy (offshore wind, waves, currents, etc.). - Number of environmental impact assessment and monitoring studies specifically carried out for marine renewable energy projects. - Number of national academic institutions and research centres involved in marine energy research and development. - Number of publications, technical reports and databases produced on marine renewable energy. - Percentage of new marine renewable energy projects that incorporate scientific and monitoring recommendations. 	<ul style="list-style-type: none"> - Solid scientific basis for the development of ocean-based renewable energy. - Reduced technical and environmental risks in future offshore projects. - Strengthened national capacity in applied research linked to the Blue Economy and energy. 	MEDIUM TERM
9.2.3	Deepen feasibility studies for offshore wind energy, wave and current energy, and hydropower.	<ul style="list-style-type: none"> - MPMR - MPSI - MoTE - MOPW - Governance partners to be identified 	<ul style="list-style-type: none"> - Number of technical and economic feasibility studies completed for: offshore wind energy, wave energy, current energy, new hydropower projects. - Number of sites with identified potential for each technology (offshore wind, waves, currents, hydropower). - Estimated potential installed capacity (MW) per technology identified in the studies. - Percentage of studies that include environmental and social impact analysis. - Number of priority projects recommended for the development or investment phase. 	<ul style="list-style-type: none"> - Clear portfolio of viable technological options to diversify the energy mix based on marine and water resources. - Greater predictability for investors and partners regarding renewable energy opportunities in Timor-Leste. - Integration of the results of these studies into the National Emissions Reduction and Energy Transition Plan. 	MEDIUM TERM
9.2.4	Develop a feasibility study for the construction of a thermal power plant to generate energy from household and industrial waste in Dili.	<ul style="list-style-type: none"> - MPMR - MPSI - MoTE - MOPW 	<ul style="list-style-type: none"> - Completion of a technical, economic and environmental feasibility study for a waste-to-energy thermal power plant. - Number of scenarios assessed (capacity, 	<ul style="list-style-type: none"> - Technical basis for an informed decision on the feasibility of a waste-to-energy facility in Dili. - Identification of potential 	MEDIUM TERM

		<ul style="list-style-type: none"> - MoSA - Governance partners to be identified 	<ul style="list-style-type: none"> incineration/energy recovery technology, location, management models). - Potential quantity of municipal and industrial waste in Dili suitable for energy recovery. - Estimated electricity generated (MWh/year) and percentage reduction in waste sent to landfill. - Number of public and institutional consultations carried out as part of the study. 	<ul style="list-style-type: none"> environmental benefits (waste reduction, emissions) and associated risks. - Possible creation of an integrated model for municipal waste management and energy generation. 	
9.2.5	Encourage, whenever possible, sustainable practices within the Blue Economy using solar panels, notably in aquaculture and ecotourism projects, Marine Research and Education Centres, restaurants and services in coastal and aquatic areas, the port and maritime navigation sector, and within Blue Economy promotion programmes and campaigns, among others.	<ul style="list-style-type: none"> - MALFF - MoTE - MTT - MoSA - Marine Research and Education Centres - Other relevant ministries and governance partners to be identified <p>(Articulate with Pillar 1: 1.2 and Pillar 2: 2.2)</p>	<ul style="list-style-type: none"> - Number of aquaculture and ecotourism projects, Marine Research and Education Centres, port facilities and coastal services equipped with solar panels. - Installed solar energy capacity (kW) in initiatives directly linked to the Blue Economy. - Percentage of electricity consumption of these projects covered by solar energy. - Number of Blue Economy programmes and campaigns incorporating solar solutions (e.g. lighting, equipment, communication). - Estimated reduction in greenhouse gas emissions associated with replacing diesel generators with solar energy. 	<ul style="list-style-type: none"> - Greater energy autonomy and reduced operational costs in coastal and marine projects. - Practical demonstration of integration between renewable energy and the Blue Economy. - Tangible contribution to the decarbonisation of key sectors (aquaculture, coastal tourism, ports). 	MEDIUM TERM
9.2.6	Encourage the cultivation of marine algae to produce biofuels and biochemical products that can be used as renewable energy sources.	<ul style="list-style-type: none"> - MALFF - MoTE - MoCI 	<ul style="list-style-type: none"> - Number of pilot projects or marine algae cultivation units established for energy/biochemical purposes. - Area of marine algae cultivation dedicated to energy purposes (hectares). - Quantity of algae biomass produced per year (tonnes). - Number of studies on algae value chains for biofuels and biochemical products (feasibility, market, technologies). - Number of partnerships with the private sector and research and development institutions for the development of energy-oriented algae. 	<ul style="list-style-type: none"> - Initial development of an emerging marine algae value chain linked to biofuels and the bioindustry. - Sustainable use of marine resources with the potential to generate energy and high value-added products. - Diversification of renewable energy sources and employment opportunities in coastal communities. 	MEDIUM TERM
9.2.7	Promote the conversion of fisheries waste into biofuels.	<ul style="list-style-type: none"> - MALFF - MoCI 	<ul style="list-style-type: none"> - Number of studies or pilot projects on the conversion of fisheries waste (heads, viscera, oils, etc.) into biofuels. - Quantity of fisheries waste collected for 	<ul style="list-style-type: none"> - Reduced pollution associated with fisheries waste in coastal communities. - Creation of an additional revenue stream from by-products of the 	LONG TERM

			<ul style="list-style-type: none"> energy recovery (tonnes/year). - Quantity of biofuel produced from fisheries waste (litres or energy equivalent). - Number of processing units or industrial partnerships involved in the conversion process. - Percentage reduction in fisheries waste improperly discarded (on beaches, in ports, at sea). 	<ul style="list-style-type: none"> fisheries sector. - Contribution to a circular economy in fisheries, aligned with Blue Economy principles. 	
9.2.8	Manage resources from the Green Climate Fund to contribute to the financing of energy transition projects.	- MoTE	<ul style="list-style-type: none"> - Total value of resources mobilised from the Green Climate Fund for renewable energy and energy transition projects in Timor-Leste. - Number of projects approved and financed by the Green Climate Fund (or similar mechanisms). - Number of national entities strengthened in the preparation, submission and management of projects to the Fund. - Percentage of financial execution of funded projects. - Number of tonnes of CO₂ equivalent avoided or reduced through supported projects. 	<ul style="list-style-type: none"> - Increased international financing to support the energy transition of Timor-Leste. - Implementation of strategic renewable energy projects with reduced dependence on the State Budget. - Strengthened institutional capacity to access and manage international climate funds. 	SHORT/MEDIUM TERM
9.2.9	Develop a legal framework that stimulates and regulates renewable energy projects in the country.	<ul style="list-style-type: none"> - MPMR - MPSI - MoTE - PCM 	<ul style="list-style-type: none"> - Number of laws, decree-laws, regulations and technical standards approved for the renewable energy sector. - Existence of defined incentive policies (tariffs, guarantees, priority grid access, etc.). - Number of renewable energy projects licensed under the new legal framework. - Average processing time for licences and authorisations for renewable projects. - Percentage of renewable energy projects compliant with legal and environmental requirements. 	<ul style="list-style-type: none"> - More attractive, predictable and transparent regulatory environment for investment in renewable energy. - Existence of a legal framework covering registration, installation, operation, licensing, supply, commercialisation, promotion, financing and incentives for the production and use of electricity from renewable energy sources. - Structured growth of the sector, with clear environmental and social safeguards. - Alignment of legislation with decarbonisation targets and international climate commitments. 	MEDIUM TERM
9.2.10	Create subsidy schemes to support SMEs and the private sector investing in renewable energy.	<ul style="list-style-type: none"> - MoCI - Whole of Government - Private Sector 	<ul style="list-style-type: none"> - Number of subsidy schemes, fiscal incentives or credit lines specifically defined for renewable energy. - Number of SMEs and companies benefiting from financial support to install 	<ul style="list-style-type: none"> - Increased private sector participation in renewable energy investment. - Reduced financial barriers for SMEs in adopting clean technologies. - Decentralised expansion of renewable 	MEDIUM TERM

			<ul style="list-style-type: none"> or operate renewable energy systems. - Total value of subsidies or incentives granted per year. - Renewable energy capacity installed (kW/MW) by supported companies. - Percentage of SME projects remaining operational after three or five years. 	capacity across multiple economic sectors.	
9.2.11	Invest in education and vocational training in the field of renewable energy.	<ul style="list-style-type: none"> - MHESC - MPSI - FDCH - Universities and Research Centres - MPMR - MoTE 	<ul style="list-style-type: none"> - Number of technical courses, vocational training programmes and university programmes created or strengthened in renewable energy. - Number of trainees (technicians, engineers, managers) trained per year. - Percentage of trainees employed in renewable energy-related jobs after completing training. - Number of partnerships between educational institutions and companies for internships and practical training. - Number of educational campaigns on renewable energy targeted at schools and communities. 	<ul style="list-style-type: none"> - Development of a skilled human resources base capable of planning, installing, operating and maintaining renewable energy systems. - Reduced dependence on foreign labour in renewable energy projects. - Increased public awareness of the benefits of the energy transition. 	MEDIUM TERM
9.2.12	Create a Renewable Natural Resources Office to coordinate intersectoral actions, undertake relevant analyses and feasibility studies for the sector, and be responsible for the implementation of renewable energy projects, including their management, monitoring and evaluation.	<ul style="list-style-type: none"> - MPMR 	<ul style="list-style-type: none"> - Formal establishment of the Renewable Natural Resources Office (legal act, organisational structure, mandate). - Number of technical and management staff assigned to the Office. - Number of plans, feasibility studies and renewable energy projects coordinated by the Office. - Number of interministerial coordination meetings held per year. - Percentage of national renewable energy projects monitored and evaluated by the Office. 	<ul style="list-style-type: none"> - Centralised and efficient coordination of renewable energy initiatives across multiple sectors. - Improved policy coherence between energy, environment and maritime and land spatial planning. - Increased implementation, monitoring and evaluation rate of energy transition projects. 	MEDIUM TERM
9.2.13	Strengthen policy coordination and cooperation among agencies responsible for energy, environment and maritime affairs to promote the sustainable growth of ocean-based renewable energy.	<ul style="list-style-type: none"> - MPMR - MoTE - MTT - LMBO - MAPP - MoTE - MOPW - SECOMS 	<ul style="list-style-type: none"> - Number of formal coordination mechanisms (committees, working groups, protocols) established among the relevant agencies. - Number of joint plans or strategies integrating energy, environment and maritime spatial planning (for example, a National Energy Transition Plan articulated with maritime spatial planning). - Number of decisions or projects resulting 	<ul style="list-style-type: none"> - Fewer maritime spatial use conflicts between energy, conservation and other economic activities. - More integrated and efficient decision-making processes for ocean-based renewable energy projects. - Enhanced national credibility in integrated Blue Economy governance and energy transition policy. 	MEDIUM TERM

		- And/or Blue Economy Working Group - Partners to be identified	from inter-agency coordination (for example, siting of offshore wind farms in alignment with marine protected areas). - Percentage of offshore project licensing processes that include a joint opinion from key agencies. - Number of joint enforcement, monitoring and public communication actions undertaken.		
9.2.14	Continue developing solar and wind energy projects.	- MOPW	- Additional installed capacity (MW) in solar and wind energy per year. - Number of new solar and wind projects (onshore and, where applicable, offshore) under development, construction and operation. - Number of households and institutions (schools, health centres, administrative posts) benefiting from new solar/wind projects. - Percentage of national electricity generated from renewable sources (particularly solar and wind). - Estimated reduction in fossil fuel consumption and associated CO ₂ emissions.	- Tangible progress towards the target (to be defined) of electricity generation from renewable sources by 2030. - Greater reliability and coverage of the electricity system, particularly in rural and remote areas. - Gradual reduction in dependence on heavy fuel oils and electricity generation costs.	MEDIUM TERM
9.2.15	Promote consultations and partnerships with the private sector to establish financing mechanisms and best practices for the development of renewable energy.	- MoCI - MoF - MoTE - MPMR - Private Sector - Partners to be identified	- Number of consultations, forums or regular meetings held with the national and international private sector on renewable energy. - Number of public-private partnerships (PPPs) or investment agreements signed for renewable projects. - Total value of private investment mobilised for renewable energy. - Number of innovative financial instruments tested (for example, power purchase agreements – PPAs, green credits, risk guarantees). - Percentage of renewable energy projects with private sector financial participation.	- Greater private sector involvement in the financing, development and operation of renewable infrastructure. - Risk-sharing and leveraging of private capital to accelerate the energy transition. - Adoption of best practices in management, operation and maintenance introduced by experienced private operators.	MEDIUM TERM

9.3 SALT PRODUCTION

STRATEGIC OBJECTIVES

- Identify, through feasibility and environmental sustainability studies, the most suitable locations in the country to expand national salt production.

- Produce salt sustainably and in accordance with international best practices, in quantities sufficient for domestic consumption and for export, including for industrial use.
- Promote production practices and methods that minimise environmental impacts and ensure the sustainability of water resources and local ecosystems.
- Diversify the local economy, with corresponding job creation and improved living conditions for communities.
- Promote scientific knowledge and traditional technologies to innovate salt production and processing, enhancing efficiency and the quality of the final product.
- Promote market and marketing strategies that may include the Timor-Leste brand in gourmet sea salt products, iodised salt and salt for cosmetic use.
- Regulate and raise community awareness regarding the importance of iodised salt consumption, particularly among children and pregnant women.
- Strengthen training and capacity-building within the sector across its various components, from production to promotion, marketing opportunities and market strategy.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
9.3.1	Conduct feasibility and environmental sustainability studies to determine the most suitable locations for expanding national salt production.	- MoCI - MoTE	- Number of technical and economic feasibility studies completed for new salt production areas. - Number of environmental sustainability studies conducted (including water resources and coastal ecosystems). - Number of priority sites identified as suitable for the expansion of salt production. - Percentage of coastal zones with saline potential assessed for feasibility and sustainability. - Number of technical and environmental recommendations incorporated into expansion plans.	- Clear identification of the most suitable areas for salt production, reducing environmental and economic risks. - Expansion planning for the salt industry based on scientific and environmental evidence. - Lower likelihood of land-use conflicts and negative impacts on sensitive ecosystems.	SHORT TERM
9.3.2	Invest in the infrastructure necessary for the development of the salt industry, including the construction and rehabilitation of salt pans, salt drying facilities and storage installations, ensuring sustainable practices from extraction through to purification and storage.	- MoCI - MoTE	- Number of salt pans constructed, rehabilitated or expanded in accordance with sustainability criteria. - Number of salt drying and storage facilities constructed or modernised. - Installed salt production capacity (tonnes/year) before and after the investments. - Percentage of facilities using energy efficiency solutions or renewable energy. - Number of direct jobs created as a result of infrastructure investments.	- Increased production capacity and improved quality of salt produced in Timor-Leste. - Reduced post-harvest losses and improved sanitary conditions for drying and storage. - Consolidation of a solid physical base for the sustainable development of the salt industry.	MEDIUM TERM
9.3.3	Develop scientific studies, including through partnerships with universities, research centres and non-governmental	- MoCI	- Number of applied research projects on salt production and processing technologies.	- Efficiency and quality gains in salt production, with reduced resource	MEDIUM TERM

	organisations, to improve salt production technologies in a sustainable manner.		<ul style="list-style-type: none"> - Number of partnerships formalised with universities, research centres and non-governmental organisations. - Number of innovations or technological improvements tested (evaporation methods, crystal optimisation, impurity reduction, etc.). - Number of technical publications, best practice manuals or protocols developed. - Percentage of production units adopting improved techniques recommended by scientific studies. 	<ul style="list-style-type: none"> consumption. - Adoption of more sustainable production methods aligned with international best practices. - Strengthened linkages between science, the productive sector and local communities. 	
9.3.4	Review and/or develop appropriate regulations for the expansion and quality of the sector, ensuring compliance with food safety parameters.	<ul style="list-style-type: none"> - MoCI - MALFF 	<ul style="list-style-type: none"> - Number of legal instruments (laws, decrees, regulations, technical standards) reviewed or approved for the salt sector. - Existence of quality and food safety standards for salt intended for human consumption and for industrial use. - Number of salt producers registered and licensed in compliance with the new regulatory framework. - Number of salt inspections and quality controls carried out annually. - Percentage of salt samples complying with the defined quality and food safety parameters. 	<ul style="list-style-type: none"> - Clear and updated regulatory framework for the production, processing and commercialisation of salt. - Increased food safety and consumer confidence in national salt products. - Improved reputation of Timor-Leste as a producer of quality salt for domestic consumption and export. 	MEDIUM TERM
9.3.5	Implement sustainable production practices, such as the use of renewable energy, minimising the use of chemicals, and protecting ecosystems surrounding salt production areas.	<ul style="list-style-type: none"> - MoCI - MoTE - Partners to be identified 	<ul style="list-style-type: none"> - Number of salt production units integrating renewable energy into their processes (for example, solar energy for pumping or drying). - Percentage of units adopting practices to minimise or eliminate the use of chemicals in production. - Number of environmental management plans implemented at the level of salt pans and production areas. - Number of sensitive ecosystem areas identified and protected within salt production zones. - Levels of environmental indicators (water quality, soils, biodiversity) in areas influenced by salt pans, monitored periodically. 	<ul style="list-style-type: none"> - Reduced negative environmental impacts associated with salt production. - Greater efficiency in water and energy use in salt pans. - Preservation of the ecological integrity of coastal zones and natural salt flats. 	MEDIUM TERM

9.3.6	Provide training and capacity-building for workers in modern salt production and processing techniques, including safe and sustainable practices.	<ul style="list-style-type: none"> - MoCI - Governance partners to be identified 	<ul style="list-style-type: none"> - Number of training sessions conducted on production techniques, processing, hygiene and occupational health and safety. - Number of workers trained (disaggregated by sex and age). - Percentage of workers applying the practices learned (through observation, audits or self-assessments). 	<ul style="list-style-type: none"> - More skilled workforce aware of sustainable and safe practices. - Improved quality of the final product and greater production efficiency. 	MEDIUM TERM
9.3.7	Develop marketing strategies to promote salt products (including gourmet, iodised and detox/cosmetic salt), associating them with the Timor-Leste brand and promoting the brand nationally and internationally.	<ul style="list-style-type: none"> - MoCI - MoTE - Governance partners to be identified 	<ul style="list-style-type: none"> - Number of specific marketing strategies and plans for salt products developed and implemented. - Number of salt brands or product lines associated with the identity of Timor-Leste (gourmet, iodised, cosmetic/spa, etc.). - Number of fairs, events or promotional campaigns (national and international) in which Timor-Leste salt products are showcased. - Volume of domestic sales and exports of salt (by product type). - Percentage of consumers recognising the “Timor-Leste” brand or origin in salt products (surveys). 	<ul style="list-style-type: none"> - Positioning of Timor-Leste as a differentiated salt producer, including higher value-added segments (gourmet, cosmetic). - Increased domestic and international demand for Timorese salt products. - Improved income for producers through the valorisation of niche markets. 	MEDIUM TERM
9.3.8	Regulate the use of iodised salt nationwide.	<ul style="list-style-type: none"> - MoCI - MoH 	<ul style="list-style-type: none"> - Number of regulatory acts establishing mandatory iodisation and standards for salt intended for human consumption. - Percentage of table salt available on the national market that is iodised in accordance with established standards. - Number of inspections conducted at points of sale, salt production units and import facilities. - Number of samples analysed for iodine content and percentage compliant with recommended levels. - Number of information campaigns directed at producers, distributors and retailers regarding the mandatory use of iodised salt. 	<ul style="list-style-type: none"> - Widespread availability of safe iodised salt throughout the national territory. - Effective contribution to reducing iodine deficiency within the population. - Harmonisation of iodisation practices among national producers and importers. 	MEDIUM TERM
9.3.9	Promote awareness campaigns on the importance of using iodised salt among the population, particularly children and pregnant women.	<ul style="list-style-type: none"> - MoCI - MoH - MSSI 	<ul style="list-style-type: none"> - Number of awareness campaigns conducted per year (radio, television, schools, health centres, social media). - Number of educational materials produced and distributed (posters, leaflets, radio/TV spots, manuals for teachers and health professionals). 	<ul style="list-style-type: none"> - Increased public awareness of the importance of iodine in nutrition, particularly among vulnerable groups. - Greater demand for and use of iodised salt among Timorese households. 	MEDIUM TERM

			<ul style="list-style-type: none"> - Number of schools, health centres and communities reached by the campaigns. - Number of participants (children, pregnant women, families) in nutritional education sessions on iodine. - Percentage of adequate knowledge regarding the importance of iodised salt and the consequences of iodine deficiency, before and after the campaigns (surveys). 	<ul style="list-style-type: none"> - Contribution to improved cognitive development and maternal and child health. 	
9.3.10	Align this economic activity with Timorese culture and identity, promoting community-based tourism.	<ul style="list-style-type: none"> - MoCI - MoTE - Municipal Authorities 	<ul style="list-style-type: none"> - Number of community-based tourism initiatives related to salt production (visits to salt pans, participatory experiences, cultural routes). - Number of communities involved in projects combining salt production and tourism. - Number of tourists participating annually in salt-related tourism activities. - Additional income generated from salt-related tourism activities (per community/producer). - Number of associated cultural products (handicrafts, gastronomy, local narratives) integrated into the salt tourism offer. 	<ul style="list-style-type: none"> - Integration of salt production into the promotion of Timorese culture, history and identity. - Diversification of income sources for salt-producing communities. - Greater social and cultural appreciation of this traditional activity. 	MEDIUM TERM
9.3.11	Promote public awareness of the importance of salt for food security and industrial uses, creating business and commercialisation opportunities for the product.	<ul style="list-style-type: none"> - MoCI 	<ul style="list-style-type: none"> - Number of public campaigns or events dedicated to the role of salt in food security and industry. - Number of potential industrial users (agro-industry, food preservation, other chemical industries) identified and contacted. - Number of commercial agreements or contracts concluded between salt producers and industrial users. - Variation in the volume of salt used in national agri-food and industrial value chains. - Percentage of producers reporting expanded market access and new customers. 	<ul style="list-style-type: none"> - Public recognition of salt as a strategic resource for food and industry. - Expansion of markets for Timorese salt beyond direct household consumption. - Increased integration of the salt sector into national economic value chains. 	MEDIUM TERM
9.3.12	Ensure access to markets, including through improved transport networks and strategic communication.	<ul style="list-style-type: none"> - MoCI - MTT - Governance partners to be identified 	<ul style="list-style-type: none"> - Number of transport infrastructure segments (roads, small ports, jetties) improved or constructed to support the distribution of salt. - Number of salt producers with regular access to adequate transport to reach main 	<ul style="list-style-type: none"> - Improved physical and logistical access for salt producers to domestic and potentially external markets. - Reduced transport costs and post-production losses, increasing the 	MEDIUM TERM

markets.
 - Average cost of transporting salt from production areas to markets.
 - Number of communication and commercial linkage initiatives (digital platforms, trade fairs, B2B meetings) facilitating contact between producers and buyers.
 - Percentage of salt production reaching planned markets without significant losses.

profitability of the activity.
 - Strengthened commercialisation chains and greater predictability of market access for producers.

9.4 SEABED MINING

STRATEGIC OBJECTIVES

- Ensure that the exploration of marine mineral resources complies with sustainability criteria, minimising environmental and social impacts.
- Ensure that mining activities demonstrate a positive cost–benefit balance in relation to the potential impacts on marine ecosystems and biodiversity.
- Conduct scientific research studies and monitor international trends, including through international cooperation, to determine Timor-Leste’s position regarding seabed mining activities.
- Implement the Legal Regime for Marine Scientific Research within the national maritime space.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
9.4.1	Promote and regulate the implementation of mineral exploration projects in the Timor Sea with the involvement of the National Minerals Authority of Timor-Leste.	- MPMR - ANM	- Number of regulations, technical standards and guidelines issued by the National Minerals Authority (ANM) applicable to offshore mining. - Number of applications for prospecting, exploration or extraction of marine minerals reviewed by the ANM. - Number of titles/licences issued for maritime mineral activities in compliance with the Mining Code. - Percentage of approved projects fully compliant with the defined environmental and social requirements. - Number of consultation and information sessions held with potential investors and coastal communities regarding the maritime mining regime.	- Operational regulatory framework for mineral activities in the Timor Sea under effective ANM supervision. - Offshore mining projects subject to rigorous controls of legality, transparency and sustainability. - Enhanced State capacity to negotiate and manage projects generating revenues and employment while minimising environmental risks.	MEDIUM TERM
9.4.2	Promote scientific and commercial research by the Institute of Geoscience of Timor-Leste and Murak	- MPMR - IGTL	- Number of marine geological and geophysical research projects conducted	- Deeper geoscientific knowledge of the seabed mineral potential of Timor-Leste.	MEDIUM TERM

	Rai Timor, E.P., in partnership with international partners.	- Murak Rai	by the Institute of Geoscience and Murak Rai Timor, E.P. - Number of cooperation agreements concluded with international institutions and companies for research on marine mineral resources. - Number of surveys, prospecting campaigns and mineral potential studies carried out within the national maritime space. - Number of technical publications, maps and databases produced on marine mineral resources. - Number of technical training sessions undertaken by national staff within the framework of these partnerships.	- Strengthened national capacity in prospecting, resource assessment and marine mineral data management. - Scientific basis to support strategic decisions on whether, when and how to proceed with offshore mining.	
9.4.3	Ensure that Environmental Impact Assessment (EIA) studies are carried out before initiating or authorising mining activities.	- MPMR - ANM - IGTL - Murak Rai -	- Number of Environmental Impact Assessment studies conducted for marine mining projects (prospecting, exploration, extraction). - Percentage of proposed mining projects that do not proceed without an EIA approved by the competent authority. - Number of environmental mitigation and compensation measures included in project environmental management plans. - Number of independent technical opinions requested for the review of EIAs. - Number of public consultations carried out as part of the EIA process.	- No offshore mining activity authorised without prior and robust assessment of environmental and social impacts. - Systematic integration of mitigation, monitoring and compensation measures into authorised projects. - Increased transparency and public trust in decision-making processes related to marine mining.	MEDIUM/LONG TERM
9.4.4	Monitor and assess mining activities, including those conducted in other areas and regions, to determine the impacts of mining operations.	- MPMR - ANM - IGTL - Murak Rai	- Number of environmental monitoring programmes implemented for mining projects (national and international reference cases). - Number of data collection campaigns (water quality, sediments, noise, biodiversity) conducted annually. - Number of monitoring and evaluation reports produced, comparing observed impacts with EIA predictions. - Number of international case studies analysed regarding deep-sea mining impacts. - Percentage of monitoring and evaluation	- Improved understanding of the actual impacts of marine mining, based on local and international data. - Enhanced capacity to adjust standards, limits and best practices considering scientific evidence. - Progressive reduction of risks of irreversible damage to sensitive ecosystems.	MEDIUM/LONG TERM

			recommendations resulting in operational or regulatory adjustments.		
9.4.5	Use mining technologies that minimise disturbance of the seabed, water contamination and impacts on marine life.	- MPMR - ANM - IGTL - Murak Rai	- Number of minimum technological requirements (standards) defined for marine mining operations. - Number of proposals or projects incorporating low-impact technologies (for example, targeted collection systems, sediment return systems, plume control mechanisms). - Percentage of authorised mining operations using technologies aligned with international best practices. - Number of technical audits conducted on mining operations to verify the environmental performance of the technologies used. - Variation in ecological indicators (turbidity, habitat integrity, abundance of key species) in areas influenced by mining activities.	- Significant reduction in physical disturbance of the seabed and the extent of sediment plumes. - Minimisation of contamination and impacts on marine biodiversity. - Technological alignment of Timor-Leste with international standards and practices for responsible mining.	MEDIUM/LONG TERM
9.4.6	Strengthen domestic legislation and national licensing systems to ensure the highest level of sustainability in potential operations, safeguarding marine ecosystems and biodiversity.	- MPMR - ANM	- Number of legal instruments (amendments to the Mining Code, specific regulations, environmental standards) approved or revised for offshore mining. - Number of licensing procedures adapted to include specific marine protection requirements (for example, exclusions within Marine Protected Areas). - Average time taken to analyse and decide on licence applications, while maintaining technical and environmental rigour. - Percentage of licences issued with clear environmental conditions and associated performance indicators. - Number of workshops/training sessions for public officials on the new legal framework and procedures.	- Robust legal and licensing system capable of filtering out unsuitable projects and imposing appropriate conditions on approved ones. - Enhanced legal protection for marine ecosystems and critical habitats in the context of mining activities. - Greater legal certainty for the State, investors and communities.	MEDIUM/LONG TERM
9.4.7	Ensure surveillance and enforcement systems to address unauthorised mining activities within the national maritime space.	- MPMR - ANM - MoD	- Number of maritime and aerial surveillance missions conducted annually with a focus on mineral activities. - Number of incidents of unauthorised mining or prospecting detected and recorded. - Number of enforcement actions applied	- Reduction or elimination of illicit mining activities in waters under the jurisdiction of Timor-Leste. - Strengthened sovereignty and effective control over marine mineral resources. - Clear message of zero tolerance towards illegal and unregulated mining.	MEDIUM/LONG TERM

			for infringements (fines, seizures, licence cancellations). - Number of technological platforms used for monitoring (satellite systems, AIS, VMS, coastal radars). - Percentage of the Exclusive Economic Zone and continental shelf covered by operational surveillance systems.		
9.4.8	Provide training and capacity-building for national specialists and technicians to enable potential participation in this sector, thereby safeguarding national interests and sovereignty.	- MPMR - IGTL - Murak Rai - FDCH	- Number of Timorese technicians, geoscientists, legal experts, environmental specialists and managers trained in areas related to marine mining and its regulation. - Number of courses, internships and capacity-building programmes (national and international) conducted. - Percentage of project and regulatory teams composed of national staff. - Number of technical documents (manuals, procedural guides) adapted to the context of Timor-Leste. - Number of young professionals integrated into key institutions (ANM, Institute of Geoscience, ministries) with expertise in this field.	- National human resource base capable of negotiating, regulating, monitoring and, where applicable, participating in marine mining operations. - Reduced exclusive dependence on foreign consultants for strategic decisions. - Strengthened sovereignty and capacity of Timor-Leste to manage its marine mineral heritage.	MEDIUM/LONG TERM
9.4.9	Participate in international discussions on the promotion of sustainable mining and best practices in the exploration of marine resources.	- MPMR - IGTL - ANM - Murak Rai	- Number of international meetings, conferences and forums on marine and seabed mining in which Timor-Leste participates (for example, ISA, United Nations, regional forums). - Number of official interventions presented by Timor-Leste (positions, statements, technical contributions). - Number of international agreements or commitments subscribed to in relation to sustainable deep-sea mining. - Number of international recommendations or best practices incorporated into national policy and legislation. - Number of bilateral or regional exchanges for sharing experiences on sustainable mining.	- Timor-Leste recognised as a responsible and informed actor in the international debate on deep-sea mining. - Adoption of international standards and best practices in the management of potential marine mining projects. - Facilitated access to knowledge, technical assistance and potential international support mechanisms.	MEDIUM/LONG TERM

9.4.10	Promote the development of the Legal Regime for Maritime Spatial Planning and Management within the national maritime space.	- Blue Economy Working Group (Articulate with Pillar 3)	- Existence of a draft legal regime for maritime spatial planning and management. - Number of draft versions, public consultations and revisions undertaken. - Number of contributions received from different sectors (fisheries, environment, tourism, energy, mining, communities). - Number of defined use zones (conservation, mining, energy, fisheries, transport, etc.) proposed in the spatial plan. - Number of interministerial coordination sessions held to align the maritime spatial planning regime with the Mining Code and other relevant legislation.	- Integrated legal framework defining where and under what conditions mining may (or may not) take place within the national maritime space. - Improved articulation between mining, marine conservation, fisheries and other uses of the sea. - Central instrument to prevent use conflicts and protect sensitive areas from extractive activities.	SHORT TERM
9.4.11	Ensure compliance with existing national legislation, particularly regarding Maritime Spatial Planning and Management and Marine Protected Areas, with a view to safeguarding ecosystems and critical habitats.	- Blue Economy Working Group (Articulate with Pillar 3)	- Number of compliance checks carried out on mining projects in relation to maritime spatial plans and Marine Protected Area (MPA) status. - Number of mining applications or projects refused or conditioned due to conflicts with MPAs or sensitive zones. - Percentage of approved mining projects including clear exclusion zones around critical habitats. - Number of infringements of maritime spatial planning or MPA legislation associated with mining activities. - Number of corrective actions implemented when non-compliance is detected.	- Effective safeguarding of Marine Protected Areas and critical habitats in the face of potential mining operations. - Coherence between mining development and marine conservation objectives within a sustainable Blue Economy framework. - Reduced risk of irreversible damage to high ecological and socio-economic value coastal and marine ecosystems.	SHORT TERM

9.5. DESALINATION

STRATEGIC OBJECTIVES

- Conduct feasibility and environmental sustainability studies to determine the most suitable locations for desalination projects, in accordance with local needs.
- Increase the availability of potable water in regions facing water scarcity, or reduce pressure on natural water resources, with a view to enhancing sustainability.
- Ensure water availability during dry seasons and implement pilot projects as part of adaptation to the impacts of climate change.
- Promote technology, innovation and human resource capacity-building to operate desalination systems to secure essential goods for the population, based on sustainable management practices.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
9.5.1	Conduct a national assessment of potable water needs with a view to constructing desalination facilities.	<ul style="list-style-type: none"> - MOPW - MPSI - Partners to be identified 	<ul style="list-style-type: none"> - Number of municipalities and sucos covered by the national assessment of potable water needs. - Number of diagnostic reports produced (by region, including Atauro). - Number of priority sites identified as potential locations for desalination facilities. - Percentage of the population facing water scarcity covered by the assessment. - Number of institutions (ministries, local authorities, partners) involved in the assessment. 	<ul style="list-style-type: none"> - Updated national map of potable water needs, identifying critical areas. - Technical and territorial basis for planning phased and efficient desalination investments. - Improved interinstitutional coordination in addressing water scarcity, including islands and remote coastal communities. 	SHORT TERM
9.5.2	Conduct feasibility and environmental sustainability studies for the desalination sector.	<ul style="list-style-type: none"> - MOPW - MPSI - MoTE - Partners to be identified 	<ul style="list-style-type: none"> - Number of technical and economic feasibility studies completed for desalination projects (by location). - Number of environmental and social sustainability studies carried out (including brine modelling and coastal impact assessments). - Percentage of proposed desalination projects with approved feasibility and sustainability studies. - Number of environmental and social recommendations incorporated into project designs. 	<ul style="list-style-type: none"> - Desalination projects prioritised based on robust cost–benefit and environmental impact analyses. - Reduced risk of implementing economically unviable or environmentally harmful systems. - Improved integration of desalination within water resource and coastal management plans. 	SHORT / MEDIUM TERM
9.5.3	Invest in research and innovation to ensure efficient desalination processes with the lowest possible environmental impact.	<ul style="list-style-type: none"> - MOPW - MPSI - MoTE - Partners to be identified 	<ul style="list-style-type: none"> - Number of funded research and innovation projects in desalination (energy efficiency, brine reuse, associated renewable energy solutions, etc.). - Number of partnerships with universities, research centres and technology companies in the field of sustainable desalination. - Expected or achieved reduction in energy consumption per cubic metre of desalinated water (percentage). - Number of prototypes, pilot projects or technological improvements tested (pre-treatment, membranes, hybrid systems with renewables). - Number of technical publications, manuals or 	<ul style="list-style-type: none"> - Gradual adoption of more efficient desalination technologies with a lower carbon footprint. - Reduced operational and environmental costs associated with desalinated water production. - Consolidation of national knowledge adapted to the specific conditions of Timor-Leste (climate, water quality, consumption patterns). 	SHORT / MEDIUM TERM

			internal standards produced on desalination best practices.		
9.5.4	Ensure Environmental Impact Assessment procedures for the preservation and conservation of marine ecosystems.	<ul style="list-style-type: none"> - MOPW - MPSI - MoTE - Timorese lead institution for the Survey and Study process (to be identified and formally established) - Partners to be identified 	<ul style="list-style-type: none"> - Number of Environmental Impact Assessments (EIAs) carried out specifically for desalination projects. - Percentage of desalination projects proceeding to construction only after an approved EIA. - Number of environmental mitigation measures implemented (brine treatment and diffusion, intake and discharge siting, protection of sensitive habitats, etc.). - Number of environmental monitoring actions (water quality, biodiversity, sediments) conducted annually in areas influenced by the facilities. 	<ul style="list-style-type: none"> - Desalination projects implemented with appropriate safeguards for coral reefs, mangroves and other sensitive marine ecosystems. - Reduced negative impacts from brine and associated discharges. - Strengthened national credibility in environmental compliance and sustainable coastal management. 	SHORT / MEDIUM TERM
9.5.5	Ensure the maintenance of active facilities and establish appropriate monitoring and evaluation processes to safeguard water quality and the health of marine ecosystems.	<ul style="list-style-type: none"> - MOPW - MPSI - MoTE - Timorese lead institution for the Survey and Study process (to be identified and formally established) - Partners to be identified 	<ul style="list-style-type: none"> - Number of desalination facilities in operation with a preventive maintenance plan in place. - Percentage of critical equipment with maintenance schedules duly complied with. - Number of potable water quality analyses (physico-chemical and microbiological parameters) conducted per year. - Number of marine environmental monitoring points established around brine discharge areas. - Number of periodic monitoring and evaluation reports produced (technical performance, water quality, environmental impacts). 	<ul style="list-style-type: none"> - Continuous and reliable operation of desalination units, with reduced service interruptions. - Assurance of safe potable water for supplied populations, in compliance with national and international standards. - Systematic monitoring of the health of marine ecosystems within the area of influence of the facilities, enabling timely corrective action. 	SHORT/MEDIUM TERM
9.5.6	Involve local communities in the process, including by providing skills for the installation and maintenance of these facilities.	<ul style="list-style-type: none"> - MOPW - MPSI - MoTE - Timorese lead institution for the Survey and Study process (to be identified and formally established) - Municipal Authorities - Partners to be identified 	<ul style="list-style-type: none"> - Number of community consultation and participation sessions held during the planning, implementation and operation phases of the projects. - Number of community members (including percentage of women and youth) trained in basic operation, maintenance and community water management. - Number of local jobs created in the construction, operation and maintenance of desalination facilities. - Percentage of community water committees or local structures with a formal role in the management or supervision of the facilities. 	<ul style="list-style-type: none"> - Coastal and island communities (for example, Atauro) actively involved in the design, acceptance and management of desalination solutions. - Strengthened local capacities to ensure the technical and social sustainability of desalination units. - Greater community ownership of the projects. 	SHORT / MEDIUM TERM

PILLAR 10: MARINE TRANSPORT AND PORT AND LOGISTICS DEVELOPMENT

10.1 INFRASTRUCTURE

STRATEGIC OBJECTIVES

- Promote and develop the communications sector, notably mobile communications and internet use, through submarine cable connectivity.
- Fulfil international commitments undertaken and develop domestic legislation in accordance with those commitments.
- Regulate the rights and obligations of Timor-Leste concerning the laying, maintenance and removal of submarine cables and pipelines, within the legal regime governing maritime spatial planning and management of the national maritime space.
- Strengthen the capacities of the Information and Communication Technologies Agency (TIC TIMOR, I.P.) to enhance the efficiency and security of maritime operations.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
10.1.1	Regulate the laying, maintenance and removal of submarine cables and pipelines within the framework of applicable international legal regimes.	- MoTC - Relevant governance partners	- Number of legal instruments approved to transpose and operationalise international obligations concerning submarine cables and pipelines. - Number of procedures/licences issued for the laying, maintenance and removal of cables and pipelines in compliance with UNCLOS and other relevant conventions.	- National legal framework aligned with the international regimes applicable to submarine cables and pipelines. - Cable and pipeline operations conducted with legal certainty and predictability for the State and operators.	MEDIUM TERM
10.1.2	Regulate the laying, maintenance and removal of submarine cables and pipelines in relation to exclusive uses and ensure proper land–sea interaction concerning their onshore landing connections.	- MoTC - MoTE - Entities responsible for Maritime Spatial Planning and Management - Relevant governance partners <i>(Articulate with Pillar 3)</i>	- Number of specific regulations approved concerning exclusive uses of submarine cables and pipelines and their respective landfall zones. - Number of landing points licensed with defined technical, environmental and spatial planning requirements.	- Effective coordination between maritime spatial planning and land-use planning for cable and pipeline infrastructure. - Reduction in use conflicts and environmental impacts in cable and pipeline landfall zones.	MEDIUM TERM
10.1.3	Ensure a holistic and integrated approach through the regulation of rights and obligations within the legal regime governing maritime spatial planning and management of the national maritime space.	- MoTC - MoTE - Entities responsible for Maritime Spatial Planning and Management - Relevant governance partners <i>(Articulate with Pillar 3)</i>	- Explicit inclusion of submarine cables and pipelines within the national maritime spatial plan. - Number of interministerial coordination opinions issued in cable and pipeline licensing processes.	- Integrated management of uses and activities within the maritime space, avoiding conflicting overlaps with fisheries, conservation, transport and other sectors. - Greater efficiency and transparency in decision-making regarding new cable and pipeline projects.	LONG TERM
10.1.4	Construct and rehabilitate basic infrastructure to support activities related to the Blue Economy,	- MoTC - MoTE - MALFF	- Number of pontoons and access infrastructure constructed or rehabilitated in priority coastal areas.	- Improved safety and accessibility for recreational, tourism and recreational fishing activities.	MEDIUM/LONG TERM

	notably access pontoons for recreational boats, recreational fishing, diving and snorkelling.	- MPSI - MOPW - Relevant governance partners	- Number of users/vessels utilising these infrastructures per year.	- Stimulation of the local economy linked to coastal and marine tourism.	
10.1.5	Improve digital solutions for the Blue Economy.	- MoTC /TIC TIMOR - Relevant ministries (Articulate with Pillar 2: 2.4.4, 2.4.5, 2.4.16)	- Number of digital platforms developed or made operational (marine data, monitoring, fisheries support, port management, etc.). - Number of registered and active users on these platforms (public institutions, companies, communities, researchers). - Establishment of the Blue Economy Portal and the TasiLink Platform as part of the operational digital solutions.	- More informed and timely decision-making based on integrated marine and coastal data. - Increased efficiency and safety of maritime operations through digital solutions.	MEDIUM/LONG TERM
10.1.6	Promote digital connectivity in coastal areas by expanding and upgrading telecommunications infrastructure in remote coastal and maritime zones to support digital innovation in fisheries, tourism and marine research.	- MoTC /TIC TIMOR - Relevant ministries (Articulate with Pillar 2: 2.4.4, 2.4.5, 2.4.16)	- Percentage of coastal settlements with access to defined minimum broadband telecommunications services. - Number of telecommunications stations or access points installed or upgraded in coastal/remote areas.	- Reduced digital exclusion in coastal communities. - Greater use of digital tools in fisheries, tourism, maritime safety and marine research.	MEDIUM/LONG TERM

10.2 PORT AND LOGISTICS DEVELOPMENT

STRATEGIC OBJECTIVES

- Develop a national port network and maritime–land interface infrastructure with the capacity to provide logistical services across the country, prioritising key locations in terms of tourism, industrial and fisheries development.
- Conduct feasibility studies for the construction of the Port of Manatuto and for the establishment of a national maritime line, to facilitate coastal shipping and coastal connectivity, as well as to provide maritime transport services for passengers and cargo at various points along the national coastline.
- Restructure and modernise the former Port of Dili for its conversion into the Dili Convention Centre II, ensuring that the space reflects the maritime identity of Timor-Leste.
- Undertake studies to incorporate sustainable practices and green technologies into the construction and operation of new ports and terminals, such as the installation of solar panels and waste collection and management systems.
- Strengthen the regulator and maritime authority, including the improvement and modernisation of its regulatory framework.
- Promote the safety of navigation and international maritime traffic in national waters.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
10.2.1	Improve port facilities throughout the country, with	- MoTC - MOPW - MPSI/SGP	- Number of ports/local landing facilities in Com, Atauro and other locations rehabilitated or	- Improved maritime access for local communities and more efficient logistical	MEDIUM/LONG TERM

	priority given to Com and Atauro.		modernised. - Increase in cargo and passenger handling capacity (tonnes/year, passengers/year).	flows. - Reduced transport costs and travel times for people and goods.	
10.2.2	Construct port facilities in Kairabela, Vemasse and Baucau to facilitate sea access for fisheries activities and to support the tourism sector.	- MoTC - MOPW - MPSI/SGP	- Number of new port facilities completed in Kairabela, Vemasse and Baucau. - Number of fisheries and tourism operations (vessel calls, tourists disembarked) recorded at these ports.	- Expansion of infrastructure supporting artisanal and commercial fisheries. - Development of regional hubs for coastal and marine tourism.	MEDIUM/LONG TERM
10.2.3	Construction of one or more marinas with pontoons, finger piers and adequate land access.	- MoTC - MOPW - MPSI/SGP	- Number of marinas constructed and operational. - Marina occupancy rate (proportion of berths utilised).	- Increased attractiveness of Timor-Leste for nautical and recreational tourism. - Creation of an ecosystem of associated services (maintenance, fuelling, tourism, hospitality).	MEDIUM/LONG TERM
10.2.4	Plan the terrestrial areas adjacent to port facilities to accommodate naval services, repair and logistics companies.	- MoTC - MOPW - MPSI/SGP	- Number of spatial plans or port master plans incorporating logistics and maritime service zones. - Number of naval service and logistics companies established in those areas.	- Creation of logistics and maritime service clusters in the vicinity of ports. - Greater efficiency in maritime supply chains and vessel maintenance.	MEDIUM/LONG TERM
10.2.5	Integrate maritime safety considerations into port infrastructure planning to ensure operational conditions supporting search and rescue.	- MoTC - MOPW - MPSI/SGP - MoD - MoI	- Number of ports with dedicated Search and Rescue (SAR) facilities or formal protocols in place. - Average response time to maritime incidents within the areas of influence of those ports.	- Improved navigation safety and protection of human life at sea. - Strengthened national capacity to respond to maritime emergencies.	SHORT/MEDIUM TERM
10.2.6	Provide training and capacity-building in the fields of marine mechanics, skippers, seamanship and safety.	- MoTC - MPSI/FDCH	- Number of training courses delivered in marine mechanics, navigation (skippers), seamanship and safety. - Number of trainees certified by area (mechanics, skipper, safety, etc.).	- More qualified maritime workforce capable of safely operating and maintaining vessels. - Reduced accidents and technical failures associated with skills gaps.	MEDIUM/LONG TERM

10.2.7	Install sustainable technologies and practices in port infrastructure, such as solar panels and waste collection and management systems.	<ul style="list-style-type: none"> - MoTC - MOPW - MPPE 	<ul style="list-style-type: none"> - Number of ports equipped with renewable energy systems (for example, solar panels). - Number of ports with functional waste collection and management systems, including oily waste and solid waste. 	<ul style="list-style-type: none"> - Reduced carbon footprint and environmental impacts of port operations. - Improved environmental compliance of ports with national and international standards. 	MEDIUM/LONG TERM
10.2.8	Restructure the former Port of Dili for its conversion into the Dili Convention Centre II, ensuring that the space reflects the maritime identity of Timor-Leste integrated into the Dili waterfront as a tourism, culture and leisure hub, including the potential reception of cruise ships.	<ul style="list-style-type: none"> - MoTE - MOPW 	<ul style="list-style-type: none"> - Completion of the restructuring and conversion project of the former Port of Dili. - Number of events, conventions and cruise ships received annually at the new Centre. 	<ul style="list-style-type: none"> - Creation of a tourism, culture and business hub that enhances the maritime identity of Timor-Leste. - Increased revenues from tourism and associated services along the Dili waterfront. 	SHORT TERM
10.2.9	Implement a maritime signalling system (lighthouses) in Atauro, Maubara, Baucau and Com to promote the safety of navigation and international maritime traffic in national waters.	<ul style="list-style-type: none"> - MoTC - MoD 	<ul style="list-style-type: none"> - Number of lighthouses and navigational aids installed and operational in those locations. - Number of incidents or groundings recorded before and after the installation of navigational aids. 	<ul style="list-style-type: none"> - Increased safety of coastal and long-distance navigation in national waters. - Reduced risk of accidents with potential human and environmental impacts. 	MEDIUM TERM
10.2.10	Implement international legislation and rules, including the ISPS Code, across all national ports and vessels, involving the conduct of security	<ul style="list-style-type: none"> - MoTC - MoD - MFAC 	<ul style="list-style-type: none"> - Percentage of national ports certified and compliant with the ISPS Code. - Number of vessels registered in Timor-Leste meeting ISPS security requirements. 	<ul style="list-style-type: none"> - Improved port security and protection against threats (terrorism, piracy, smuggling). - Compliance with international standards, facilitating global trade and avoiding restrictions. 	MEDIUM TERM

	assessments, training of port professionals, as well as monitoring and enforcement, including regular inspections.				
10.2.11	Implement International Maritime Organization (IMO) standards to update and incorporate the international regulations established by maritime conventions, ensuring that national legislation is aligned with international requirements, including the modernisation and certification of ports and sector professionals, with a focus on safety, accessibility and environmental protection.	<ul style="list-style-type: none"> - MoTC - MoD - VPM I/Training Centres - MFAC 	<ul style="list-style-type: none"> - Number of IMO conventions ratified and incorporated into national legislation. - Number of national regulations updated to incorporate IMO standards. 	<ul style="list-style-type: none"> - Maritime regulatory system aligned with international best practices in safety and environmental protection. - Ports and maritime professionals certified according to international standards, enhancing competitiveness. 	MEDIUM TERM
10.2.12	Adopt digital technologies and data-sharing platforms to enhance efficiency and transparency in maritime trade and logistics.	<ul style="list-style-type: none"> - MoTC /TIC TIMOR - MoCI - Relevant ministries <p>(Articulate with Pillar 2: 2.4.4, 2.4.5, 2.4.16 and Pillar 10: 10.15 and 10.1.6)</p>	<ul style="list-style-type: none"> - Number of digital systems implemented (Port Community System, single windows, cargo tracking, etc.). - Percentage of port and customs procedures carried out electronically. - Establishment of the Blue Economy Portal and the TasiLink Platform as part of the operational digital solutions. 	<ul style="list-style-type: none"> - Faster, more transparent and predictable port and logistics processes. - Reduced administrative costs and vessel turnaround times in port. 	MEDIUM TERM

10.3 MARITIME TRANSPORT AND NAVIGATION

STRATEGIC OBJECTIVES

- Promote international, regional and national trade, including within the framework of integration into the WTO and ASEAN.
- Develop science and technology in the search for more sustainable solutions for a more efficient, cleaner and less polluting maritime transport sector.
- Support the development of the petroleum sector on the south coast.
- Contribute to the development of sustainable tourism, including cruise tourism and adventure tourism in marine environments.
- Provide training and capacity-building for professionals in the field of maritime transport.
- Improve the management of the radiofrequency spectrum, which is crucial for navigation and communication systems used in the marine environment.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
10.3.1	Stimulate local economic development, particularly in coastal areas, including commercial and tourism activities.	- Relevant ministries	- Number of supported coastal economic initiatives/projects (tourism, trade, maritime services). - Increase in the number of jobs generated in coastal communities directly linked to maritime transport.	- Growth of local economies in coastal areas based on improved maritime connectivity. - Increased income for coastal households and reduced regional disparities.	MEDIUM TERM
10.3.2	Implement the STCW Convention by establishing training programmes in accordance with its international standards and ensuring that crew certification is carried out in compliance with regulations established by the IMO.	- MoTC - MoCI - MoD	- Existence of national legislation in force incorporating the STCW Convention. - Number of Timorese seafarers certified in accordance with STCW standards.	- Maritime professionals with internationally recognised training and certification. - Opportunities for Timorese maritime employment in international fleets and enhanced operational safety.	MEDIUM TERM
10.3.3	Establish maritime academies or training centres to ensure that professionals are properly trained.	- VPM I/Training Centres - MoTC - Relevant ministries and governance partners	- Number of maritime academies or training centres established and accredited. - Number of trainees per year enrolled in maritime courses (navigation, engineering, safety, radio communications, etc.).	- Strong institutional foundation for the continuous training of maritime human resources. - Increased national capacity to operate, manage and regulate the maritime sector.	MEDIUM TERM
10.3.4	Create certification systems for seafarers and other maritime industry professionals, through international partnerships, to develop curricula aligned with IMO conventions.	- VPM I / Training Centres - MoTC - Relevant ministries and governance partners	- Number of certification systems formally approved (types of seafarer books, licences, certificates, etc.). - Number of professionals certified under curricula aligned with IMO conventions.	- Formal recognition of Timorese maritime qualifications at national and international levels. - Improved quality and safety of the maritime workforce.	MEDIUM TERM
10.3.5	Conduct periodic surveys and inspections of vessels to ensure compliance with SOLAS, MARPOL, ISPS and other relevant conventions.	- MoTC - MoD - MFAC	- Number of surveys/inspections carried out annually on vessels operating under the flag of Timor-Leste or in national	- Greater compliance with safety and environmental standards on board vessels.	MEDIUM TERM

		- Other relevant ministries and governance partners	ports. - Percentage of detected non-compliances resolved within the established deadlines.	- Reduced incidents related to safety breaches, pollution and maritime accidents.	
10.3.6	Develop monitoring systems through the implementation of radar, maritime surveillance and signalling systems to prevent accidents and ensure compliance with international standards.	- MoTC - MoD - MoI - MFAC	- Number of radar stations and maritime traffic monitoring and information systems installed (for example, VTS, coastal AIS). - Coverage of the national coastline by surveillance and signalling systems (percentage of coastal extension covered).	- Improved monitoring of maritime traffic, preventing collisions and other incidents. - Strengthened capacity for enforcement and application of the law at sea.	MEDIUM TERM
10.3.7	Develop and regulate communication activities, as well as optimise communication systems, including ensuring robust networks capable of supporting real-time data exchange for maritime safety, weather forecasting and marine resource monitoring.	- MoTC - MoD - MoI - MFAC	- Number of regulations approved on maritime communications and the use of real-time information systems. - Number of vessels and coastal facilities equipped with modern and interoperable communication systems.	- More reliable maritime communications for maritime safety, weather forecasting and resource monitoring. - Improved coordination between vessels, coastal authorities and emergency services.	MEDIUM TERM
10.3.8	Ensure the provision of public telecommunications services and the management of the radiofrequency spectrum, which are essential for the operational efficiency of maritime industries, enabling communication between vessels, coastal facilities and emergency services.	- MoTC - MoD - MoI - MFAC	- Percentage of main maritime routes covered by adequate communication services (VHF, HF, satellite, etc.). - Number of radiofrequency usage licences granted to maritime services (vessels, coastal stations, SAR).	- Secure and continuous communication between vessels, ports and emergency services. - More efficient maritime operations aligned with international safety requirements.	MEDIUM TERM

10.4 SHIPBUILDING AND SHIP REPAIR

STRATEGIC OBJECTIVES

- Support the development of the maritime transport industry and international trade in the country.
- Support the development of the petroleum industry on the south coast
- Promote employment and technical skills within this sector.
- Develop science, technology and innovation to ensure the efficiency, safety and sustainability of vessels, including the use of alternative fuels, more efficient propulsion systems and emission reduction technologies.
- Explore shipbuilding and repair methods that minimise environmental impact, such as the use of recyclable materials and the implementation of production processes that reduce waste.
- Ensure appropriate legislation and regulation for the development of the sector, including environmental, safety and performance certification systems.
- Strengthen internal capacity for surveillance and enforcement within the national maritime space.
- Reduce international dependence and strengthen national sovereignty.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
10.4.1	Build the capacity and provide training for national technicians and specialists in the design, construction, assembly and operation of the sector, including sustainability competencies and specialised areas such as engineering, mechanics and related fields.	- VPM I / Training Centres - MoTC - Relevant ministries and governance partners	- Number of technical training programmes in shipbuilding and ship repair implemented. - Number of technicians and specialists trained (naval engineering, mechanics, welding, composites, electronics, sustainability, etc.).	- Initial national capacity to develop a shipbuilding and repair sector. - Reduced need for exclusive reliance on highly qualified foreign labour.	MEDIUM TERM
10.4.2	Develop feasibility and environmental impact studies to promote the shipbuilding and ship repair sector.	- MoTC - Relevant ministries	- Number of economic and technical feasibility studies completed for shipyards and naval workshops. - Number of Environmental Impact Assessments conducted for shipbuilding and ship repair facilities.	- Identification of viable locations and business models for shipyards, with mitigation of environmental impacts. - Sector planning based on evidence and sustainability criteria.	MEDIUM TERM
10.4.3	Raise awareness among all stakeholders to develop this new sector in the country, ensuring adherence to international best practices and compliance with environmental standards.	- MOPW - MPSI/SGP - MoTC - Other relevant ministries and governance partners	- Number of awareness campaigns, workshops or information sessions conducted with authorities, the private sector and communities. - Number of entities (companies, associations, public institutions) involved in awareness initiatives.	- Greater understanding of environmental, safety and quality requirements in shipbuilding and ship repair. - Commitment of national stakeholders to develop the sector in line with international best practices.	MEDIUM TERM

PILLAR 11: MARITIME SECURITY

STRATEGIC OBJECTIVES

- **Analyse national risks: identify and characterise the main risks and threats to the maritime security of Timor-Leste, including piracy, terrorism, drug and human trafficking, illegal, unreported and unregulated (IUU) fishing, smuggling, marine pollution and other illicit or hazardous activities.**
- **Assess the likelihood of occurrence and potential impact: examine the probability and effects that each threat may have on security, the economy, the environment and national sovereignty, contributing to the prioritisation of response actions.**
- **Identify national vulnerabilities: assess structural and operational weaknesses in the national maritime security system, including gaps in port infrastructure, shortages of qualified human resources, insufficient equipment, limited implementation of international standards, and legal and institutional shortcomings.**
- **Define national priorities and objectives: establish clear, measurable and realistic targets for strengthening maritime security, such as reducing piracy incidents, increasing vessel inspections, ensuring effective protection of marine protected areas and improving inspection and control practices in ports.**
- **Develop preventive measures: implement actions to mitigate identified risks and prevent incidents, such as strengthening port security, building the capacity of enforcement officers, implementing maritime surveillance and tracking systems, establishing rapid response protocols and developing contingency plans.**

- **Strengthen international cooperation: promote coordination with neighbouring countries and regional and international organisations in information sharing, training, capacity-building and joint patrols. Encourage Timor-Leste's accession to relevant multilateral conventions and initiatives in the field of maritime security and environmental protection.**
- **Monitor and evaluate results: establish a system of continuous monitoring of implemented actions, with performance indicators and evaluation mechanisms to enable corrective measures, strategy updates and continuous improvement.**
- **Promote awareness and training: conduct public awareness campaigns on the importance of maritime security and promote regular technical and operational training programmes for maritime and port professionals, in alignment with international standards.**
- **Harmonise national legislation with international legal instruments: review and adapt national legislation to international maritime law, including UNCLOS, the International Ship and Port Facility Security (ISPS) Code, the International Convention for the Safety of Life at Sea (SOLAS), and the International Regulations for Preventing Collisions at Sea (COLREG), ensuring their integration into the national legal framework.**

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
11.1	Apply international maritime security instruments, notably COLREG, SOLAS, MARPOL and other IMO conventions, ensuring compliance by vessels under national jurisdiction.	- MOTC - MoD - Other relevant ministries and governance partners	- Number of international instruments ratified and incorporated into national legislation. - Number of national regulations developed/ revised for the implementation of COLREG, SOLAS and MARPOL. - Number of ship inspections carried out per year (Port State Control / Flag State Control). - Percentage of vessels under the national flag compliant with safety and environmental protection requirements. - Number of maritime incidents related to non-compliance with international standards.	- Annual increase in the number of vessels certified as compliant. - Percentage reduction in accidents/incidents linked to safety failures or pollution. - Number of serious non-compliances identified and corrected per year.	SHORT / MEDIUM / LONG TERM
11.2	Strengthen the National Maritime Authority by allocating the necessary legal, human and material resources to ensure the effective fulfilment of its regulatory, enforcement and surveillance functions.	- MoD/AMN - Relevant governance partners	- Number of legal instruments approved defining competencies, powers and organisational structure. - Number of staff assigned (by category: enforcement, inspection, administration, analysis). - Number of delegations or operational posts established along the coastline. - Percentage of the annual budget	- Percentage reduction in the average response time to maritime incidents. - Increase in the number of enforcement and inspection operations coordinated by the Maritime Authority. - Number of administrative offence or maritime crime proceedings initiated and concluded.	MEDIUM TERM

			executed in line with the Authority's operational needs.		
11.3	Develop technological and operational capacities through the installation of coastal control and surveillance systems (radar, AIS, satellite), emergency response systems and command and control centres.	- MoD - Governance partners to be identified	- Number of coastal radars, AIS stations and satellite links operational. - Number of command and control centres established (national and regional). - Percentage of the Exclusive Economic Zone covered by surveillance systems (radar/AIS/satellite). - Number of incidents detected through surveillance systems versus manual reporting.	- Percentage reduction in maritime surveillance "blind spots". - Increase in the number of interceptions of illicit activities based on technological intelligence. - Reduction in the average time (in hours) between detection and response to an incident.	MEDIUM TERM
11.4	Provide continuous training and professional qualification for civilian and military personnel involved in maritime security, promoting partnerships with friendly countries and specialised organisations for technical and pedagogical support.	- MoD - MoI - MPSI/FDCH	- Number of training courses delivered per year (security, enforcement, ISPS, SOLAS, search and rescue, etc.). - Number of participants trained (by institution and thematic area). - Percentage of maritime security professionals holding specific international certifications (IMO, ISPS, STCW, etc.).	- Percentage increase in pass rates for international courses and certifications. - Percentage reduction in operational errors attributable to training deficiencies. - Number of qualified national instructors developed (reduced external dependence).	MEDIUM TERM
11.5	Support the modernisation of ports and the implementation of safe operational practices, integrating security, environmental protection and logistical efficiency requirements.	- MOTC - MoD - MoI - MOTE	- Number of ports assessed against international safety standards (ISPS, occupational safety, environmental compliance). - Number of port security plans and emergency plans approved. - Percentage of port operations carried out under formally adopted safety procedures. - Number of security incidents or occupational accidents in port areas.	- Percentage reduction in accidents within port zones. - Increase in the number of ports with ISPS certification fully implemented. - Percentage increase in operational efficiency (average berth time / turnaround time).	SHORT TERM
11.6	Establish a joint maritime enforcement task force, composed of elements from the naval component of the F-FDTL, the Maritime Police, Customs, the Fisheries Authority and other entities with responsibilities at sea, operating under coordinated operational arrangements.	- MoD - MoI - MALFF - MOF	- Number of interinstitutional cooperation protocols signed. - Number of joint enforcement operations conducted per year. - Number of vessels inspected during joint operations. - Percentage of infringements detected in joint operations versus isolated operations.	- Increase in the number of maritime crimes and infringements detected and sanctioned. - Percentage reduction in recurring illicit activities (IUU fishing, smuggling, trafficking) in the most critical areas. - Number of successful joint operational training exercises conducted.	SHORT/ MEDIUM TERM

11.1 CAPACITY-BUILDING, SURVEILLANCE AND ENFORCEMENT

STRATEGIC OBJECTIVES

- **Defend national sovereignty and marine resources:** ensure effective control and protection of the Exclusive Economic Zone (EEZ), including the seabed and living and non-living resources, in accordance with the Law of the Sea.
- **Engage the F-FDTL in economic development:** promote the active contribution of the naval component of the F-FDTL to the protection of maritime economic activities, with particular focus on surveillance, enforcement and support for the development of the Blue Economy.
- **Promote operational training and capacity-building:** strengthen the training of military and civilian human resources involved in maritime operations, focusing on security, enforcement, rescue, surveillance and environmental protection.
- **Consolidate the Maritime Authority System of Timor-Leste:** strengthen the command, control and coordination structure of the National Maritime Authority, ensuring its operational readiness based on adequate legislation, qualified human resources and logistical means.
- **Create and implement specific legislation:** develop a legal framework enabling the establishment of infrastructure to support national defence and the development of the Blue Economy, aligned with international standards.
- **Reinforce infrastructure and logistical capacities:** improve existing naval facilities and develop new support bases along the coast, ensuring sustainability and territorial reach of naval operations.
- **Modernise information and command systems:** invest in the development of the C4ISR system (Command, Control, Communications, Computers, Cybersecurity, Intelligence and Surveillance) to ensure a coordinated and effective response to diverse maritime threats.
- **Equip the naval component with appropriate assets:** acquire vessels, equipment and technologies suited to defence, enforcement and surveillance missions, focusing on agile, cost-effective and operationally efficient platforms.
- **Strengthen the National Maritime Authority:** consolidate its institutional, technical and logistical capacity to ensure the full exercise of State authority in maritime areas under its jurisdiction.
- **Train specialists in critical areas:** invest in advanced training in fields such as naval engineering, maintenance, logistics operations, surveillance technologies and port management.
- **Implement a National Maritime Alert System:** establish an integrated structure for monitoring and responding to maritime emergencies, ensuring coordination between civilian and military entities.
- **Reinforce search, rescue and enforcement capacity:** strengthen the naval component's ability to respond to emergencies, rescues, maritime accidents and pollution incidents, supported by appropriate assets and specialised training.
- **Ensure compliance with the Law of the Sea:** guarantee alignment with UNCLOS, SOLAS, MARPOL and other relevant instruments.
- **Promote the security of strategic installations:** protect critical infrastructure associated with oil and gas exploitation, particularly on the south coast, ensuring safe and sustainable operations.
- **Establish strategic international partnerships:** enhance bilateral and multilateral cooperation in maritime security, fostering capacity-sharing, joint training and technical assistance.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
11.1.1	Acquire versatile and cost-effective naval assets capable of operating in coastal and ocean waters, supported by coordinated communications with aerial and land-based assets.	- MoD - Governance partners to be identified	- Number of vessels acquired by type (coastal patrol, offshore patrol, fast craft, etc.). - Percentage of fleet operational availability (days in operation versus days out of service). - Average number of patrol days per vessel per year.	- Increase in the number of nautical miles patrolled annually. - Percentage reduction in areas of the EEZ without regular patrol presence. - Number of illicit or suspicious incidents intercepted due to the deployment of new assets.	MEDIUM TERM
11.1.2	Develop the Port of Hera as the main naval base, with expansion capacity and complementarity with secondary logistical points along the coast.	- MoD - MOPW - MPSI/SGP - Governance partners to be identified	- Number of infrastructures constructed/rehabilitated (quays, workshops, fuel depots, command centres). - Percentage of physical and financial execution of the Hera naval base project. - Number of naval assets permanently stationed at Hera.	- Reduction in the average deployment time for patrol or response from the naval base. - Increase in the number of naval operations coordinated from Hera. - Number of maintenance and repair services carried out locally (improved logistical autonomy).	MEDIUM TERM
11.1.3	Create regional coastal surveillance centres, ensuring progressive coverage of the EEZ and integration of sensors, radar, AIS and satellite imagery.	- MoD - Mol - Governance partners to be identified	- Number of regional coastal surveillance centres operational. - Percentage of the national coastline covered by these centres. - Number of alerts generated by each regional centre.	- Percentage reduction in the time required to detect suspicious activities in remote areas. - Increase in the number of incidents prevented or neutralised based on early warning. - Number of joint operations initiated based on information generated by the regional centres.	MEDIUM TERM
11.1.4	Provide continuous and specialised training for human resources, including technicians, system operators, naval engineers and inspection personnel, in collaboration with international partners.	- MOTC - MoD - Mol - MPSI/FDCH - Governance partners to be identified	- Number of surveillance system technicians trained (radar, AIS, C4ISR). - Number of qualified naval engineers and maintenance personnel. - Percentage of command centre operators certified to operate critical systems.	- Percentage reduction in system downtime due to lack of technical capacity. - Increase in the number of preventive maintenance actions carried out by national teams. - Reduction in the number of critical technical failures following specialised training.	MEDIUM TERM
11.1.5	Conduct active surveillance and multisectoral intelligence gathering, encompassing national security, environmental protection, natural resource monitoring and traffic control.	- MOTC - MoD - Mol - MPMR - Governance partners to be identified	- Number of surveillance patrols carried out with multisectoral objectives (security, environment, resources). - Number of maritime intelligence reports produced per period (monthly/quarterly). - Percentage of reports used in operational or strategic policy decision-making processes.	- Increase in the number of preventive operations based on risk analysis. - Percentage reduction in environmental incidents or illegal exploitation activities not detected in a timely manner. - Number of public policy recommendations adopted based on maritime intelligence.	MEDIUM TERM

11.1.6	Ensure effective enforcement against threats to sovereignty and marine resources, including IUU fishing, illegal mineral extraction, illicit vessel trafficking, polluting activities and environmental crimes.	- MoD - Mol - Governance partners to be identified	- Number of vessels inspected per year. - Number of infringements detected by type (IUU fishing, smuggling, pollution, illegal extraction). - Percentage of infringement cases concluded with the application of sanctions.	- Percentage reduction in the occurrence of IUU fishing in priority areas. - Increase in the number of seizures of vessels, equipment and products originating from illegal activities. - Reduction in the number of repeat offences by previously inspected and sanctioned operators.	SHORT / MEDIUM / LONG TERM
11.1.7	Conduct surveillance of submarine and aerial traffic, integrating data obtained from maritime and airborne platforms, thereby strengthening intelligence fusion and cross-domain analysis.	- MoD	- Number of platforms (maritime and aerial) integrated into the surveillance system. - Number of cross-domain data correlations (maritime/aerial/submarine) analysed. - Percentage of relevant incidents identified through the intersection of different intelligence sources.	- Increase in the number of early detections of complex threats (combined use of assets). - Percentage reduction in undetected intrusions in areas of strategic interest. - Number of joint intelligence reports produced and shared with other forces.	LONG TERM
11.1.8	Promote international cooperation actions, including joint exercises, mutual assistance protocols, information sharing and technology transfer.	- MoD - Mol - MFAC - Governance partners to be identified	- Number of operational cooperation protocols and agreements signed. - Number of joint maritime security and enforcement exercises conducted annually. - Number of operational information-sharing platforms or channels established with external partners.	- Increase in the number of successful joint operations conducted with foreign forces. - Percentage reduction in communication failures during incidents requiring multinational response. - Number of technologies or systems introduced in Timor-Leste through cooperation projects.	MEDIUM TERM

11.2 MONITORING AND INTERNATIONAL COOPERATION

STRATEGIC OBJECTIVES

- **Promote and preserve regional and global peace and stability: develop bilateral and multilateral cooperation initiatives with neighbouring countries and international organisations, with the objective of strengthening cooperative security in the Indo-Pacific region and preventing conflicts or instability that may affect navigation, trade or the sustainable use of marine resources.**
- **Strengthen national capacities through external cooperation: promote strategic partnerships for institutional, technical and operational capacity-building in maritime security, search and rescue, surveillance and environmental protection, ensuring effective knowledge and technology transfer.**
- **Contribute to ocean protection and the development of the Blue Economy: establish cooperation networks to share best practices and experiences in the sustainable exploitation of marine resources, including fisheries, coastal tourism, marine biotechnology and ocean-based renewable energy.**
- **Integrate Timor-Leste into relevant international forums, consolidate active participation in organisations such as the International Maritime Organization (IMO), the International Hydrographic Organization (IHO), the ASEAN Regional Forum, the Pacific Islands Forum, and other regional and global platforms.**
- **Reinforce maritime security diplomacy: use maritime cooperation as an instrument of foreign policy, projecting Timor-Leste's image as a responsible partner committed to peace, international legality and sustainable development.**

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
11.2.1	Establish and formalise bilateral maritime cooperation agreements with countries such as Australia, Indonesia, Portugal, Japan, South Korea and the Member States of the Community of Portuguese Language Countries (CPLP), for the exchange of information, joint patrol operations, training and technical assistance.	- MoD - MFAC - Governance partners to be identified	-- Number of bilateral agreements signed and in force (by country). - Number of coordination meetings held per agreement per year. - Number of joint activities (patrols, training sessions, technical projects) foreseen under each agreement.	- Increase in the number of joint patrols or coordinated operations with partner countries. - Percentage of commitments under each agreement effectively implemented. - Reduction in the number of border or jurisdictional incidents due to improved coordination.	MEDIUM TERM
11.2.2	Strengthen Timor-Leste's participation in multilateral maritime security exercises, promoting interoperability and confidence-building with other regional navies and coast guards.	- MoD - MFAC - Governance partners to be identified	- Number of multilateral exercises in which Timor-Leste participates per year. - Number of military personnel and officers deployed to each exercise. - Percentage of positive external assessments regarding Timor-Leste's interoperability.	- Increase in the number of standard operating procedures harmonised with regional partners. - Percentage reduction in interoperability failures (communications, command, logistics) identified during exercises. - Number of best practices incorporated into national procedures following each exercise.	MEDIUM TERM
11.2.3	Develop joint training and capacity-building programmes involving military personnel, maritime authority officers, environmental technicians and port officials, with the support of recognised international institutions.	- MOTC - MOTE - MoD - Mol - MFAC - Governance partners to be identified	- Number of joint training programmes ongoing (by thematic area and partner). - Number of Timorese participants trained annually in external programmes. - Percentage of trainees assigned to critical maritime security functions following completion of training.	- Increase in the number of national specialists in highly specialised areas (search and rescue, ISR, ISPS, etc.). - Percentage reduction in reliance on foreign experts in key operational roles. - Number of training modules replicated domestically by nationally trained personnel ("train the trainers").	MEDIUM TERM
11.2.4	Promote technical exchange missions with partner countries, aimed at developing specific competencies in the areas of port inspection, electronic surveillance, naval engineering, emergency management and marine conservation.	- MOTC - MOTE - MoD - Mol - MFAC - Governance partners to be identified	- Number of outgoing technical missions (Timor-Leste abroad) and incoming missions (foreign experts to Timor-Leste). - Number of technical reports and recommendations produced following each mission. - Percentage of recommendations implemented within the defined timeframe.	- Increase in the number of practical improvements introduced in ports, surveillance systems, inspection procedures and emergency management. - Percentage reduction in deficiencies identified during international audits (e.g. IMO, IHO, etc.). - Number of pilot projects initiated based on technical exchange missions.	MEDIUM TERM
11.2.5	Consolidate cooperation with regional and multilateral organisations, such as the International Maritime Organization (IMO), United Nations Office on Drugs and Crime (UNODC), Food and Agriculture Organization (FAO), Indian Ocean Rim Association (IORA), Pacific Community (SPC) and the Community of Portuguese	- MoD - MoTC - Mol - MFAC - Governance partners to be identified	- Number of active projects or programmes with each organisation. - Number of events (training sessions, workshops, meetings) organised with the support of these organisations. - Percentage of external co-financing	- Increase in the number of international standards and best practices implemented in Timor-Leste. - Percentage reduction in gaps identified in sectoral diagnostics (fisheries, environment, port security).	MEDIUM TERM

	Language Countries (CPLP), with a view to implementing international standards, combating organised crime and supporting the ocean economy.		obtained for maritime security and Blue Economy projects.	- Number of national reports submitted in compliance with international obligations (IMO, FAO, etc.).	
11.2.6	Align international cooperation with national development policy, ensuring that external assistance programmes are consistent with Timor-Leste's strategic objectives and contribute to medium-term institutional autonomy.	- MFAC - Governance partners to be identified	- Number of cooperation projects aligned with national plans (e.g. Strategic Development Plan, Blue Economy Policy, etc.). - Percentage of cooperation funds allocated to nationally defined priorities. - Number of national coordination mechanisms (committees, working groups) active in the management of maritime cooperation.	- Increase in the number of tangible cooperation outcomes that strengthen institutional autonomy (new legislation, new systems, strengthened national capacities). - Percentage reduction in project fragmentation and duplication of efforts. - Number of joint Government/partner evaluations conducted and programme adjustments implemented.	MEDIUM TERM
11.2.7	Establish national focal points for the coordination of international maritime cooperation, ensuring effectiveness, continuity and monitoring of the commitments undertaken.	- MFAC - MoD - MoI - MTT	- Number of focal points designated (by ministry/entity). - Number of interinstitutional coordination meetings held per year. - Percentage of international requests for information or action responded to within agreed deadlines.	- Percentage reduction in delays and communication failures with international partners. - Increase in the number of cooperation initiatives effectively followed up and completed as planned. - Number of monitoring and evaluation reports produced by focal points on international maritime commitments.	SHORT TERM

AXIS 4: SUPPORTING THE IMPLEMENTATION OF THE BLUE ECONOMY (CROSS-CUTTING PILLARS)

PILLAR 12: WATER AND BASIC SANITATION

STRATEGIC OBJECTIVES

- Invest in an integrated manner in access to safe drinking water and basic sanitation throughout the country, also contributing to the reduction of single-use plastics and the promotion of recycling and reuse.
- Provide universal, safe and sustainable access to water supply, whether for the private consumption of all citizens or for agriculture, commerce, industry, tourism and the development of aquaculture.
- Ensure that all Timorese have access to improved basic sanitation across the country, through self-sufficient and high-quality sewerage systems, including the construction of treatment facilities and the provision of public sanitation facilities in the capital and municipalities.
- Implement the Dili Sanitation and Drainage Master Plan and expand water supply systems in all municipal capitals, with a view not only to ensuring access but also to building systemic resilience against flooding, by separating rainwater from wastewater to protect the capital's coastline.
- Ensure the technical training of professionals in the water and basic sanitation sector and strengthen the institutional capacity of the entities and bodies responsible for managing, implementing, monitoring and enforcing the sector.
- Establish alternative resilience mechanisms in response to climate change and prevent its impacts on water and sanitation infrastructure.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
12.1	Promote the reduction, recycling and reuse of plastic, linked to water management and basic sanitation measures.	<ul style="list-style-type: none"> - MoSA - MOPW - Municipal Authorities - Other relevant ministries and governance partners <p>(Articulate with Pillar 5)</p>	<ul style="list-style-type: none"> - Number of awareness campaigns on plastic reduction, recycling and reuse conducted per year. - Number of municipalities with organised systems for selective collection and plastic recycling. - Percentage of plastic waste collected that is recycled or reused. - Number of establishments (commercial, tourism, industrial) with documented practices to reduce single-use plastics. 	<ul style="list-style-type: none"> - Percentage reduction in the annual volume of single-use plastics consumed. - Percentage reduction in the presence of plastic in monitored watercourses and beaches. - Increase in the number of community-led recycling and reuse initiatives supported by the State. 	MEDIUM TERM
12.2	Finance and construct infrastructure to ensure reliable and sustainable access to safe drinking water throughout the country.	<ul style="list-style-type: none"> - MoSA - MOPW - MPSI/SGP - Municipal Authorities - Other relevant ministries and governance partners 	<ul style="list-style-type: none"> - Number of drinking water supply systems constructed or rehabilitated (by municipality). - Percentage of the population with access to at least basic and safely managed drinking water services. - Number of days of service interruption per year, per system. - Percentage of water samples complying with microbiological and physico-chemical quality standards. 	<ul style="list-style-type: none"> - Percentage increase in the population with continuous access to reliable drinking water. - Percentage reduction in waterborne diseases reported by health services. - Increase in the number of rural and peri-urban communities integrated into formal water supply systems. 	MEDIUM TERM
12.3	Develop the necessary studies and feasibility plans to expand piped drinking water nationwide.	<ul style="list-style-type: none"> - MoSA - MOPW - MPSI/SGP - Municipal Authorities - Other relevant ministries and governance partners 	<ul style="list-style-type: none"> - Number of feasibility studies and water master plans prepared and approved. - Percentage of municipalities covered by studies and expansion plans for piped water supply. - Number of public consultations and community participation sessions conducted as part of the studies. 	<ul style="list-style-type: none"> - Increase in the number of piped water expansion projects financed based on these studies. - Percentage reduction in areas identified as lacking supply planning up to the defined planning horizon. - Number of investment decisions based on technical evidence (studies and plans). 	MEDIUM TERM
12.4	Implement the Strategic Water Management Plan.	<ul style="list-style-type: none"> - MoSA - MOPW - MPSI/SGP - Municipal Authorities - Other relevant ministries and governance partners 	<ul style="list-style-type: none"> - Percentage of actions foreseen in the strategic plan initiated and completed within the established timeframe. - Number of public entities aligned with the plan (implementation agreements/sectors involved). - Number of plan reviews and monitoring reports produced. 	<ul style="list-style-type: none"> - Increase in the number of plan targets achieved (e.g. coverage, efficiency, quality). - Percentage reduction in water losses (non-revenue water) within managed systems. - Number of good water resource management practices institutionalised. 	MEDIUM TERM
12.5	Improve intersectoral mechanisms for investment in and management of water and basic sanitation.	<ul style="list-style-type: none"> - MoSA - MOPW - MPSI/SGP - Municipal Authorities - Other relevant ministries and governance partners 	<ul style="list-style-type: none"> - Number of interministerial platforms, committees or working groups formally established. - Number of intersectoral coordination meetings held per year. - Percentage of water and sanitation projects involving more than one ministry or sectoral entity. 	<ul style="list-style-type: none"> - Percentage reduction in project overlap and duplication between entities. - Increase in the number of integrated water/sanitation/environment/health/tourism projects. - Number of joint decisions taken regarding priority investments. 	MEDIUM TERM

12.6	Develop databases and monitoring and management systems for water and basic sanitation, ensuring transparency and public participation in tracking progress.	<ul style="list-style-type: none"> - MoSA - MOPW - MPSI/SGP - Municipal Authorities - Other relevant ministries and governance partners 	<ul style="list-style-type: none"> - Number of functional databases established (water supply, sanitation, water quality, waste management). - Percentage of water and sanitation systems integrated into the national information system. - Number of public reports published annually on coverage, quality and sector performance. - Number of public consultations or online platforms providing access to sector data. 	<ul style="list-style-type: none"> - Percentage increase in the availability of up-to-date data for planning and regulation. - Increase in the number of policy decisions supported by data from the monitoring system. - Increase in the number of citizens and organisations using publicly available information for participation and oversight. 	MEDIUM TERM
12.7	Review and implement the National Water Resources Management Policy to achieve the objectives of the Blue Economy.	<ul style="list-style-type: none"> - MOPW - Other relevant ministries and governance partners 	<ul style="list-style-type: none"> - Number of legal and regulatory instruments updated in accordance with the policy. - Number of river basin management plans prepared and under implementation. - Percentage of water resources (rivers, aquifers, lakes) monitored according to defined indicators. 	<ul style="list-style-type: none"> - Increase in the number of water catchment areas with protection measures in force. - Percentage reduction in severe pollution incidents affecting monitored water resources. - Number of water use conflicts mitigated through the application of the policy. 	MEDIUM TERM
12.8	Review and implement the National Water Supply Policy to achieve the objectives of the Blue Economy.	<ul style="list-style-type: none"> - MOPW/BTL - Other relevant ministries and governance partners 	<ul style="list-style-type: none"> - Number of technical and operational standards updated for water supply services. - Percentage of service providers adopting the standards set out in the national policy. - Number of performance audits of service providers conducted annually. 	<ul style="list-style-type: none"> - Percentage increase in the operational efficiency of water supply systems (reduction of losses, improved billing and collection). - Increase in the number of systems with preventive maintenance and contingency plans in place. - Percentage reduction in prolonged supply failures associated with poor management. 	MEDIUM TERM
12.9	Review and implement the National Basic Sanitation Policy to achieve the objectives of the Blue Economy.	<ul style="list-style-type: none"> - MOPW - Other relevant ministries and governance partners 	<ul style="list-style-type: none"> - Number of sanitation regulations and standards updated (sewerage systems, septic tanks, faecal sludge, wastewater). - Percentage of municipalities with municipal sanitation plans aligned with the national policy. - Number of sanitation systems (sewer networks, septic systems, wastewater treatment plants) licensed and monitored. 	<ul style="list-style-type: none"> - Percentage increase in the population with access to improved basic sanitation. - Percentage reduction in the direct discharge of untreated wastewater into rivers and coastal areas. - Number of municipalities with institutionally strengthened sanitation services. 	MEDIUM TERM
12.10	Review the legal framework required for the implementation of policies on water resources management, water supply and basic sanitation.	<ul style="list-style-type: none"> - MOPW/BTL - Other relevant ministries and governance partners 	<ul style="list-style-type: none"> - Number of laws, decree-laws and regulations reviewed or approved. - Number of public and technical consultations conducted during the legislative process. - Percentage of sectoral policies provided with a clear legal basis for implementation and enforcement. 	<ul style="list-style-type: none"> - Increase in the number of inspection and regulatory actions supported by the new legal framework. - Percentage reduction in legal gaps and ambiguities identified in previous assessments. - Number of cases demonstrating effective application of the legal framework (sanctions, licensing, quality control). 	MEDIUM TERM
12.11	Implement the Water Supply and Sanitation Master Plan for Dili and the remaining municipal capitals.	<ul style="list-style-type: none"> - MOPW/BTL - Other relevant ministries and governance partners 	<ul style="list-style-type: none"> - Percentage of physical and financial execution of projects foreseen under the Master Plan. - Number of municipal capitals with components of the plan under active implementation. 	<ul style="list-style-type: none"> - Percentage increase in the urban population of municipal capitals with access to improved water and sanitation services. - Percentage reduction in urban areas with 	MEDIUM TERM

			- Number of new household water and sanitation connections established.	open sewage or direct wastewater discharge. - Number of neighbourhoods rehabilitated with functional water and drainage networks.	
12.12	Reform the institutional model of the sector, as a public sector with greater autonomy, efficiency and sustainability, to support the implementation of the Government's strategy and ensure effective technical and economic regulation.	- MOPW/BTL - Other relevant ministries and governance partners	- Number of legal instruments redefining the institutional model (public enterprise, regulatory authority, etc.). - Number of sector entities with new statutes, organisational structures and management plans approved. - Percentage of operating costs covered by own-source revenues (where applicable).	- Percentage increase in the operational and financial efficiency of the sector (cost-benefit indicators). - Percentage reduction in delays in maintenance and fault response. - Number of regulatory and management decisions based on technical and economic criteria.	MEDIUM TERM
12.13	Identify new water sources, including desalination, the construction of reservoirs and water treatment facilities nationwide, and continue expanding the water supply network throughout the national territory.	- MOPW/BTL - Other relevant ministries and governance partners (Articulate with Pillar 9: 9.5)	- Number of studies identifying new water sources completed. - Number of reservoirs, desalination plants and water treatment facilities constructed or rehabilitated. - Number of kilometres of water distribution network constructed or expanded per year.	- Percentage increase in installed water storage and potable water production capacity. - Percentage reduction in vulnerability to drought periods in critical areas. - Number of previously unserved communities connected to the water supply network.	MEDIUM TERM
12.14	Ensure that all municipal urban areas are equipped with improved sanitation facilities.	- MOPW - Other relevant ministries and governance partners	- Number of public sanitation facilities constructed or rehabilitated in urban areas. - Percentage of urban households with access to improved sanitation facilities (private or shared). - Number of schools, health centres and public spaces with functional sanitation facilities.	- Percentage reduction in open defecation practices in urban areas. - Increase in the number of daily users of public sanitation facilities. - Percentage reduction in outbreaks of sanitation-related diseases in urban contexts.	MEDIUM TERM
12.15	Connect all households to the existing sewerage systems in Dili and, where this is not possible, ensure connection to septic tanks or access to community sanitation facilities.	- MOPW - MRDCH - Other relevant ministries and governance partners	- Number of households connected to sewerage systems in Dili. - Number of adequate septic tanks and community sanitation facilities installed where connection to the network is not feasible. - Percentage of households in Dili with an improved sanitation solution (sewer network or appropriate alternative).	- Percentage reduction in the discharge of untreated sewage into open drains and watercourses in Dili. - Increase in the number of neighbourhoods with near-universal basic sanitation coverage. - Percentage reduction in community complaints related to odours, contamination and sewage flooding.	MEDIUM TERM
12.16	Improve coordination with development partners in cooperation projects for the water and sanitation sector.	- MOPW - MPSI/SGP - Other relevant ministries and governance partners	- Number of active cooperation projects in the water and sanitation sector. - Number of Government-partner coordination meetings held per year. - Percentage of projects harmonised with national priorities and sectoral plans.	- Increase in the number of complementary (non-duplicative) projects that strengthen national capacity. - Percentage reduction in fragmentation and overlap of cooperation initiatives. - Number of joint project outcome	MEDIUM TERM

				evaluations conducted and adjustments implemented.	
12.17	Approve and implement a Tariff Policy that includes differentiated tariffs for different categories of consumers, both domestic and commercial/industrial, while promoting sectors relevant to the Blue Economy.	- MOPW - MoCI - Other relevant ministries and governance partners	- Number of legal instruments approving the Tariff Policy and differentiated tariff structures. - Percentage of consumers (domestic, commercial, industrial, aquaculture, tourism) classified under defined tariff categories. - Number of public communication campaigns conducted regarding the new tariff policy.	- Increase in the number of users in Blue Economy-related sectors benefiting from tariffs aligned with sustainable productive use. - Percentage reduction in excessive consumption or water wastage among large-scale users.	MEDIUM TERM
12.18	Develop appropriate infrastructure, including operation and maintenance systems, for the collection, treatment and disposal of wastewater.	- MOPW - MPSI/SGP - Other relevant ministries and governance partners	- Number of sewerage systems constructed or rehabilitated (collection networks, pumping stations, wastewater treatment plants). - Number of operation and maintenance contracts or plans implemented. - Percentage of urban wastewater treated prior to discharge.	- Percentage reduction in pollutant loads discharged into rivers and coastal areas. - Increase in the number of localities with operational and regularly maintained sewerage systems. - Percentage reduction in major sewer system failures due to lack of maintenance.	MEDIUM TERM
12.19	Improve monitoring and control systems for the collection and treatment of wastewater from public, commercial, industrial, social and residential facilities.	- MOPW - MPSI/SGP - Other relevant ministries and governance partners	- Number of entities (public, industrial and commercial facilities) regularly monitored. - Number of effluent quality analyses conducted per year. - Percentage of facilities compliant with discharge standards.	- Percentage reduction in illegal discharges or discharges exceeding permitted limits. - Increase in the number of improvement plans implemented by non-compliant operators. - Percentage reduction in pollution incidents attributed to uncontrolled discharges.	MEDIUM TERM
12.20	Implement the legislation and regulations in force and develop integrated systems for the management of municipal solid waste.	- MOPW - MoSA	- Number of municipalities with formal systems for the collection, transport and disposal of solid waste. - Number of inspections and enforcement actions carried out under waste management legislation. - Percentage of municipal waste collected that is properly managed (controlled landfill, recycling, recovery).	- Percentage reduction in litter in public spaces, watercourses and coastal areas. - Increase in the number of waste management infrastructures (transfer stations, controlled landfills, recycling centres). - Percentage reduction in disease outbreaks and pest infestations associated with poorly managed waste.	MEDIUM TERM
12.21	Improve drainage systems in all municipalities, ensuring the construction and rehabilitation of stormwater drainage systems.	- MOPW - MPSI/SGP - Other relevant ministries and governance partners	- Number of stormwater drainage construction or rehabilitation projects implemented per municipality. - Number of kilometres of drainage ditches/channels constructed or cleaned annually. - Percentage of urban areas covered by a functional drainage system.	- Percentage reduction in the frequency and severity of urban flooding. - Percentage reduction in roads and infrastructure damaged due to drainage failures. - Reduction in the number of public complaints regarding flooding in intervention areas.	MEDIUM TERM
12.22	Install waste barriers at key drainage outlets to reduce marine litter and flooding.	- MOPW - MPSI/SGP	- Number of waste barriers installed at strategic drainage points. - Number of tonnes of waste collected annually by these barriers.	- Percentage reduction in solid waste reaching rivers, beaches and coastal areas. - Percentage reduction in drainage blockages caused by solid waste.	MEDIUM TERM

		- Other relevant ministries and governance partners	- Percentage of critical drainage points equipped with retention barriers.	- Reduction in the number of emergency cleaning interventions in drainage channels.	
12.23	Strengthen professional training programmes and institutional capacity-building initiatives for the development of water and basic sanitation infrastructure, including system maintenance and operation.	- MOPW - MPSI/FDCH - SEFOPE - Other relevant ministries and governance partners	- Number of professional training programmes implemented per year (engineering, operation, maintenance, management). - Number of sector technicians and managers trained and certified. - Percentage of sector entities with institutional capacity-building plans under implementation.	- Percentage reduction in response time to breakdowns and operational failures. - Increase in the number of preventive maintenance operations carried out by national teams. - Percentage reduction in reliance on external consultants for critical technical functions.	MEDIUM TERM
12.24	Ensure the development of monitoring, prevention and response mechanisms in relation to climate change, with a view to minimising its effects on water and basic sanitation infrastructure, in intersectoral coordination with the relevant governmental entities.	- MOPW - MoTE - SEFOPE - Other relevant ministries and governance partners	- Number of climate vulnerability studies carried out for water and sanitation infrastructure. - Number of adaptation and resilience plans prepared and implemented. - Percentage of new infrastructure projects incorporating climate resilience criteria.	- Percentage reduction in damage and service disruptions caused by extreme climate events. - Increase in the number of adapted infrastructure assets (elevation, structural reinforcement, system redundancy). - Number of early warnings and preventive actions undertaken prior to high-risk climate events.	MEDIUM TERM

PILLAR 13: MANAGEMENT AND CONSERVATION OF WETLANDS AND TRANSITION ZONES

STRATEGIC OBJECTIVES

- Include a study of the biodiversity of wetlands and transitional zones, and national water resources, in the Survey and Study of Marine Biodiversity in Timor-Leste, in order to map the ecosystems of different biodiversity areas in inland waters and wetlands, including georeferenced mapping of saltwater intrusion and urban pollution hotspots in direct correlation with the health of coastal coral reefs.
- Develop a policy for the management of river basins (including the management of basins shared with Indonesia, such as the Loes, Tono and Tafara rivers), wetlands and transitional zones.
- Develop Coastal Zone Management plans and mechanisms to preserve coastal ecosystems, protect against erosion, facilitate the recreational and sustainable use of the coast, and address issues such as urbanisation and pollution, in coordination with national maritime spatial planning and management.
- Map all vulnerable coastal areas to prevent the development or conversion of activities that are detrimental, including aquaculture, salt production or desalination, to the recovery of natural systems.
- Develop and implement the management, conservation and rehabilitation of aquatic ecosystems, wetlands and transition zones, including streams, lagoons, groundwater, swamps and coastal ecosystems such as mangroves.
- Monitor and sanction, in accordance with the legislation in force, sand extraction in various rivers and coastal areas, in particular the Comoro River, and create buffer zones along riverbanks and around dams, lagoons and coastlines, to support the conservation of water resources and control natural floodplains.
- Reduce sediment runoff, pollution from fertilisers and pesticides, and the negative impacts of altered water flows on streams, wetlands and coastal ecosystems.

- Raise awareness and educate communities on the need to protect and sustainably manage wetlands, which are essential to ensuring ecological and economic benefits.
- Engage local communities in decision-making and participation in projects, measures and actions, both inland for the management of aquatic resources and in coastal areas, promoting business and self-development opportunities, namely ecotourism and adventure tourism projects.
- Ensure sound management of land–sea interface zones, including the approval of water resources legislation.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
13.1	Conduct the survey and study of biodiversity in wetlands and transition zones through the Survey and Study of the Marine Biodiversity of Timor-Leste.	<ul style="list-style-type: none"> - MOPW - Blue Economy Working Group - Timorese lead institution for the Survey and Study process (to be identified and formally established) <p>(Articulate with Pillar 1: 1.2)</p>	<ul style="list-style-type: none"> - Number of field surveys conducted in wetlands and transition zones. - Number of species identified and recorded (flora and fauna, including endemic and threatened species). - Number of technical reports and ecosystem maps produced. - Percentage of key wetlands and transition zones mapped and characterised. 	<ul style="list-style-type: none"> - Increase in the number of areas with detailed ecological information available to support decision-making. - Percentage reduction in knowledge gaps regarding biodiversity in wetlands and transition zones. - Increase in the number of conservation and management measures grounded in scientific data. 	MEDIUM TERM
13.2	Accede to the Ramsar Convention (an international treaty aimed at promoting the conservation and wise use of inland water and wetland ecosystems worldwide).	<ul style="list-style-type: none"> - PM/LMBO - PCM - MoTE - MOPW 	<ul style="list-style-type: none"> - Number of legislative instruments approved for accession to and implementation of the Ramsar Convention. - Number of wetlands proposed and designated as Ramsar sites. - Number of management plans prepared for sites identified as being of international importance. 	<ul style="list-style-type: none"> - Increase in the number of wetlands granted enhanced protection status. - Percentage increase in the total area of wetlands under formal protection regimes. - Number of specific conservation actions implemented at Ramsar sites. 	MEDIUM TERM
13.3	Approve and implement the legal framework for Special Environmental and Ecological Protection Zones (ZEPAE) (to identify and regulate land use in areas which, due to their ecological value and sensitivity or their exposure and vulnerability to natural hazards, should be subject to special protection, including various coastal protection areas, areas relevant to the sustainability of the terrestrial hydrological cycle, and natural risk prevention areas).	<ul style="list-style-type: none"> - MPSI - MoTE - MOPW - PCM <p>(Articulate with Pillar 3: 3.1)</p>	<ul style="list-style-type: none"> - Number of legislative instruments establishing the legal framework for ZEPAE approved. - Number of areas classified as ZEPAE, including coastal areas, wetlands and critical basins. - Percentage of the coastline and hydrologically significant areas covered by ZEPAE. 	<ul style="list-style-type: none"> - Increase in the number of specific planning and management instruments for ZEPAE in force. - Percentage reduction in illegal or incompatible occupations and activities within ZEPAE. - Increase in the number of ecological restoration actions carried out in degraded ZEPAE. 	MEDIUM TERM
13.4	Introduce specific rules on land use, occupation and transformation into	<ul style="list-style-type: none"> - MPSI 	<ul style="list-style-type: none"> - Number of Municipal Land-Use Plans prepared or revised to include specific 	<ul style="list-style-type: none"> - Percentage reduction in new developments approved in high ecological 	SHORT TERM

	Municipal Land-Use Plans, with a clear impact on the coastal zone or on areas adjacent to watercourses, lagoons, or wetlands and transition zones.		rules for wetlands, the coastal zone and riverbanks. - Percentage of municipalities with Municipal Land-Use Plans containing standards for the protection and management of wetlands and transition zones. - Number of technical opinions issued on the compatibility of projects with protection rules.	risk areas without mitigation measures. - Increase in the number of development projects adjusted to protect wetlands and coastal zones. - Percentage reduction in land-use conflicts in sensitive areas (wetlands, riverbanks, lagoons).	
13.5	Implement the already approved Municipal Land-Use Plans of Bobonaro, Ermera, Baucau, Lautém and Viqueque, as well as those of Aileu, Ainaro, Covalima and Manufahi, by creating local conditions for the management and conservation of wetlands and transition zones.	- MPSI - Relevant ministries - Municipal Authorities	- Number of municipalities with approved Municipal Land-Use Plans in active implementation phase. - Number of specific protection and management actions for wetlands and transition zones foreseen in the Municipal Land-Use Plans and already executed. - Percentage of municipal territory with land uses aligned with the Municipal Land-Use Plans (protection zones respected).	- Increase in the number of municipal wetlands with protection, restoration or sustainable use measures underway. - Percentage reduction in deforestation, erosion and irregular occupation in areas identified as sensitive in the Municipal Land-Use Plans. - Increase in the number of sustainable economic initiatives (e.g. ecotourism, sustainable agriculture) located outside high ecological risk areas.	SHORT/MEDIUM TERM
13.6	Prepare and implement Coastal Zone Management Plans.	- MPSI - Relevant ministries (Articulate with Pillar 3: 3.1)	- Number of Coastal Zone Management Plans prepared, approved and published. - Percentage of the national coastline covered by approved management plans. - Number of measures for protection against erosion, unplanned urbanisation and pollution incorporated into the plans.	- Percentage reduction in the rate of coastal erosion in monitored priority stretches. - Increase in the number of coastal areas with regulated sustainable recreational, tourism and economic use. - Percentage reduction in illegal or inappropriate construction in coastal risk zones.	SHORT/MEDIUM TERM
13.7	Map all vulnerable coastal areas to prevent the development or conversion of activities that are detrimental, including aquaculture, salt production or desalination, to the recovery of natural systems.	- MOPW - MPSI - Blue Economy Working Group - Timorese lead institution for the Survey and Study process (to be identified and formally established) (Articulate with Pillar 3: 3.1; Pilar 8: 8.1; and Pillar 9: 9.3 and 9.5)	- Number of coastal vulnerability studies and maps produced. - Percentage of coastal areas classified according to levels of ecological vulnerability and risk. - Number of licensing opinions or decisions that use vulnerability maps as a reference.	- Percentage reduction in new licences for high-impact activities in highly vulnerable coastal areas. - Increase in the number of coastal areas identified for ecological recovery and rehabilitation. - Percentage increase in the compatibility between coastal economic activities and conservation objectives.	MEDIUM TERM
13.8	Initiate a runoff management and water quality programme in priority river basins.	- MOPW - MALFF - MoTE - MPSI	- Protective strips with native vegetation defined along streams, canals, lagoons and springs (kilometres of banks classified as buffer zones).	- River basins demarcated and regulated. - Degraded riverbanks restored with native species. - Buffer zones included in new agricultural	MEDIUM TERM

			<ul style="list-style-type: none"> - Number of hectares restored. - Percentage of new projects incorporating buffer zones. - Number of farmers trained. - Existence of published good practice guidelines. - List of hazardous pesticides restricted. - Percentage of new projects subject to Environmental Impact Assessment and a runoff management plan. - Number of critical points rehabilitated and monitored. - Annual reports produced. - Number of schools/communities engaged on the importance and need to preserve river basins. - Strengthened inspection and application of graduated sanctions for bank deforestation, direct discharges and illegal works altering flows (data on enforcement actions). 	<ul style="list-style-type: none"> and infrastructure licences. - Farmers trained in the rational use of fertilisers/pesticides and soil conservation. - Inclusion of good practices as a condition for public support to agriculture. - Gradual restriction of the most hazardous pesticides and promotion of agroecological practices. - Requirement of Environmental Impact Assessment and runoff management plans for new roads, bridges, dams and canals. - Existing structures causing erosion, siltation or excessive flow diversion identified and rehabilitated. - Monitoring of water and sediment quality in priority basins (turbidity, nutrients, basic pesticides). - Inspection and sanctions in force. 	
13.9	Implement awareness-raising and education actions targeting local communities on the importance of ecosystems in wetlands and transition zones, including through the National Ocean Literacy Programme and the Young Blue Economy Ambassadors Programme.	<ul style="list-style-type: none"> - PCM - SECOMS - MoTE - ME <p>(Articulate with Pillar 2: 2.2.1 and 2.4.1 and 2.4.12)</p>	<ul style="list-style-type: none"> - Number of awareness campaigns, workshops and community sessions conducted per year. - Number of participants (communities, schools, local leaders) engaged in the activities. - Number of educational materials produced and distributed (guides, posters, multimedia content). 	<ul style="list-style-type: none"> - Percentage increase in community knowledge regarding the importance of wetlands and transition zones. - Increase in the number of local initiatives for the conservation and clean-up of wetlands and streams promoted by communities. - Percentage reduction in harmful local practices (burning, waste dumping, illegal extraction) in sensitive areas. 	MEDIUM TERM
13.10	Approve water resources legislation.	<ul style="list-style-type: none"> - MOPW 	<ul style="list-style-type: none"> - Number of legislative instruments on water resources drafted, discussed and approved. - Number of complementary regulations and technical guidelines issued for the implementation of the law. - Number of dissemination and training sessions on the new legislation delivered to authorities and communities. 	<ul style="list-style-type: none"> - Increase in the number of water use licensing and inspection procedures based on the new legislation. - Percentage reduction in identified illegal or unauthorised uses of water resources. - Increase in the number of protection measures for riparian zones, aquifers and watercourses implemented under the law. 	SHORT TERM

PILLAR 14: RURAL DEVELOPMENT, TRADE AND INDUSTRY

STRATEGIC OBJECTIVES

- Empower rural and coastal communities through sustainable Blue Economy sectors, such as fisheries, aquaculture, ecotourism and biodiversity conservation.
- Strengthen community leadership, with particular emphasis on women and local community groups, through Local Action Groups for project governance.
- Improve housing and social infrastructure suited to diverse livelihood and well-being needs.
- Build capacity and promote knowledge exchange to advance sustainable economic activities linked to coastal and aquatic resources.
- Facilitate trade and strategic investment in the Blue Economy sector.
- Promote import and export activities within the framework of strategic Blue Economy investments.
- Promote national industries and local products.
- Strengthen regulatory frameworks that support trade, industry and national cooperatives.
- Promote the national private sector and economic growth.
- Develop adequate housing with access to water supply, sanitation and public hygiene improvements, as preconditions for healthy marine ecosystems and community well-being.
- Develop rural development mechanisms that include support for the management of inland and coastal aquifers, forest protection and the reduction of pollution affecting marine and freshwater resources.
- Give preference, including at local level, to companies and products committed to sustainability.
- Promote the export of sustainable and/or high-value recycled products and materials, reducing logistical and transport costs.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
14.1	Establish Local Action Groups to promote community leadership, with particular emphasis on women and local community groups, to enhance participation in public decision-making and project governance.	- VPM II - MoSA - Municipal Authorities	- Number of Local Action Groups established and operational. - Percentage of women and young members in each Local Action Group. - Number of Local Action Group meetings held per year. - Number of Blue Economy projects planned or monitored by Local Action Groups.	- Increase in the number of rural and coastal project decisions taken with formal community participation. - Percentage increase in the representation of women and vulnerable groups in local governance structures. - Number of Blue Economy initiatives led or co-led by Local Action Groups in rural and coastal communities.	SHORT/MEDIUM TERM
14.2	Invest in housing and social infrastructure suited to diverse livelihood and well-being needs.	- VPM II - MANLC	- Number of housing units and social infrastructure facilities (schools, community centres, health posts) constructed or rehabilitated in rural and coastal areas. - Percentage of households benefiting from housing improvements in areas linked to the Blue Economy. - Number of social infrastructure	- Percentage reduction in households living in inadequate housing conditions in the target areas. - Increase in the number of communities with social infrastructure suited to coastal and rural economic activities. - Percentage increase in community satisfaction with housing conditions and basic services.	MEDIUM TERM

			projects aligned with rural development and Blue Economy programmes.		
14.3	Invest in social inclusion and poverty reduction in coastal communities.	MSSI	<ul style="list-style-type: none"> - Mapping of socioeconomically vulnerable coastal communities, identifying priority groups (women heads of household, elderly fishers, children at risk of food insecurity). - Existence of emergency support networks for families affected by extreme climate events. - Number of individuals/communities enrolled in social support programmes. - Number of social security schemes adapted for artisanal fishers and mariculture producers, including coverage during closed seasons or adverse climate events. - Percentage reduction in poverty among coastal communities. 	<ul style="list-style-type: none"> - Individuals and families at risk identified and corresponding social support systems and programmes established with a view to social inclusion and poverty reduction. - Existence of income security mechanisms for seasonal workers or those dependent on marine resources, vulnerable persons and victims of extreme climate events. - Reduction in poverty and improvement in the living conditions of coastal communities. 	SHORT AND MEDIUM TERM
14.4	Build capacity and promote knowledge exchange to advance sustainable economic activities linked to coastal and aquatic resources.	<ul style="list-style-type: none"> - Relevant ministries for the sector <p style="color: blue; margin-top: 10px;">(Articulate with Pillar 2: 2.1, 2.2 and 2.4)</p>	<ul style="list-style-type: none"> - Number of training and exchange actions (workshops, study visits, mentoring programmes) conducted. - Number of participants (with particular emphasis on women and young people) in training related to sustainable fisheries, aquaculture, ecotourism, processing of marine products, etc. - Number of training modules or manuals developed specifically for the rural Blue Economy. 	<ul style="list-style-type: none"> - Increase in the number of sustainable economic initiatives created or transformed following the training. - Percentage increase in average income derived from Blue Economy activities in target communities. - Percentage reduction in environmentally harmful economic practices associated with the use of coastal and aquatic resources. 	MEDIUM TERM
14.5	Construct housing and community facilities integrating improvements in water supply, sanitation and hygiene (WASH) as prerequisites for healthy marine ecosystems and community well-being.	<ul style="list-style-type: none"> - VPM II - MANLC - MOPW - MoSA 	<ul style="list-style-type: none"> - Number of housing units and community facilities constructed/rehabilitated with integrated WASH components. - Percentage of households in coastal and riverside communities with access to safe water, improved basic sanitation and functional community facilities. - Number of WASH projects specifically designed to reduce impacts on marine and freshwater ecosystems. 	<ul style="list-style-type: none"> - Percentage reduction in sewage and domestic waste discharged directly into rivers and coastal areas. - Percentage reduction in water- and sanitation-related diseases in the targeted communities. - Increase in the number of communities certified as meeting basic WASH and healthy environment standards. 	MEDIUM TERM

14.6	Support cooperatives and small and medium-sized enterprises in their economic growth, ensuring the sound management of inland and coastal aquifers, forest protection and the reduction of pollution affecting marine and freshwater resources.	- MoCI	<ul style="list-style-type: none"> - Number of cooperatives and SMEs supported in sectors linked to the Blue Economy and water resources. - Number of supported business plans incorporating measures for sustainable aquifer management, forest protection and pollution control. - Percentage of supported enterprises adopting certified or verified environmental practices. 	<ul style="list-style-type: none"> - Increase in the number of jobs created in Blue Economy cooperatives and SMEs in rural and coastal areas. - Percentage reduction in supported productive activities causing degradation of aquifers, forests and marine resources. - Increase in the number of rural value chains associated with sustainable Blue Economy products. 	MEDIUM TERM
14.7	Use and promote the Timor-Leste Trade Information Portal to make import and export activities easier and more transparent for companies involved in marine products and services.	- MoCI	<ul style="list-style-type: none"> - Number of companies registered and actively using the Portal, particularly those linked to marine products/services. - Number of Portal accesses and consultations related to the Blue Economy. - Number of training sessions and technical support activities on the use of the Portal delivered to SMEs and cooperatives. 	<ul style="list-style-type: none"> - Increase in the number of import/export operations of marine products carried out through the Portal. - Percentage reduction in the time and administrative costs associated with external trade procedures for Blue Economy companies. - Percentage increase in perceived transparency in trade procedures. 	MEDIUM TERM
14.8	Organise and participate in trade exhibitions to showcase Timorese marine products and attract investment to the Blue Economy.	- MoCI - MoTE	<ul style="list-style-type: none"> - Number of national and international trade fairs, exhibitions and commercial events with Timor-Leste participation focused on marine products. - Number of companies and cooperatives participating in each event. - Number of business contacts and potential investors registered at each initiative. 	<ul style="list-style-type: none"> - Increase in the number of commercial contracts, partnerships or orders resulting from such events. - Percentage increase in the value of exports of marine products and derivatives. - Increase in the number of domestic and foreign investments in identified Blue Economy sectors following exhibitions. 	MEDIUM TERM
14.9	Work with the private sector to leverage its involvement in planned healthy and productive economic development within the Blue Economy.	- MoCI - SEC - Relevant ministries for the sector	<ul style="list-style-type: none"> - Number of memoranda of understanding, public-private partnerships or cooperation agreements with private companies in Blue Economy sectors. - Number of forums, sectoral dialogues or government-private sector coordination platforms held. - Percentage of Blue Economy projects with active private sector participation. - Number of recognised good business practices replicated in other projects/sectors. 	<ul style="list-style-type: none"> - Increase in the number of projects co-financed or led by the private sector with environmental sustainability objectives. - Percentage increase in private investment in priority Blue Economy areas (sustainable aquaculture, marine tourism, marine renewable energy, etc.). 	MEDIUM TERM

14.10	Collaborate with artisans and cooperatives, such as the cooperative group “Sorunain,” to promote <i>Tais</i> (traditional woven textile) at national and international events, linking cultural heritage to economic opportunities.	- MoCI - SEC - SEAC	- Number of <i>Tais</i> artisans and cooperatives involved in initiatives linked to the Blue Economy (fairs, campaigns, thematic products). - Number of national and international events at which <i>Tais</i> is promoted in association with coastal and marine identity. - Number of <i>Tais</i> products or collections inspired by marine themes/coastal ecosystems developed.	- Percentage increase in the income of participating artisans and cooperatives. - Increase in the number of partnerships between artisans and marine tourism/ecotourism operators. - Strengthened international visibility of Timorese cultural heritage associated with the sea.	MEDIUM TERM
14.11	Support the expansion of small-scale salt production through improved techniques and the exploration of export markets, as referred to in the broader Blue Economy strategy.	- MoCI - SEC (Articulate with Pillar 9: 9.3)	- Number of salt producers supported with technical training and improved equipment. - Number of salt production units certified in good production and food safety practices. - Number of tonnes of salt produced annually by supported small-scale producers.	- Percentage increase in the productivity and quality of small-scale salt production. - Increase in the number of national and international markets reached by Timorese salt. - Percentage increase in the average income of households involved in sustainable salt production.	MEDIUM TERM
14.12	Ensure the effective understanding and implementation of legal documents governing the structure and organisation of MoCI, particularly about the emerging Blue Economy sector.	- MoCI	- Number of legal documents, internal regulations and guidelines on the role of MoCI in the Blue Economy disseminated. - Number of internal training sessions and workshops on the legal and organisational framework of MoCI. - Percentage of MoCI directorates/services with clearly defined functions and responsibilities within the Blue Economy framework.	- Increase in the number of MoCI decisions and programmes aligned with the legal and strategic framework of the Blue Economy. - Percentage reduction in duplication or internal competency gaps in addressing Blue Economy matters. - Increase in the number of MoCI implementation and planning reports integrating the Blue Economy dimension.	SHORT TERM
14.13	Continue to safeguard consumer rights in relation to goods and services, including those of the marine industry, by monitoring prices, testing product quality and addressing issues within supply chains.	- Relevant ministries	- Number of inspections and enforcement actions carried out on goods and services linked to the marine industry (fishery products, tourism, transport, etc.). - Number of consumer complaints received and addressed concerning marine products/services. - Number of quality and safety tests conducted on seafood products in the domestic market.	- Percentage reduction in non-compliant marine products detected in the market. - Increase in the number of consumer complaints resolved satisfactorily. - Percentage increase in consumer confidence in Blue Economy goods and services.	MEDIUM TERM

14.14	Participate in bilateral meetings with neighbouring regions to strengthen trade relations and industrial cooperation, including discussions on maritime links and SME promotion.	- MFAC - Relevant ministries	- Number of bilateral meetings held annually focused on blue trade and industry. - Number of draft agreements or joint initiatives discussed (maritime routes, trade facilitation, SME support). - Number of business delegations involved in such bilateral missions.	- Increase in the number of bilateral agreements or memoranda of understanding effectively signed in the field of the Blue Economy. - Percentage increase in Blue Economy-related trade with neighbouring countries/regions. - Number of Timorese SMEs initiating or expanding cross-border business following such meetings.	SHORT/MEDIUM TERM
14.15	Actively participate in ASEAN consumer protection conferences and other regional forums to strengthen Timor-Leste's engagement in the Blue Economy and promote knowledge exchange.	- MFAC - Relevant ministries	- Number of regional conferences, forums and meetings attended annually. - Number of interventions, presentations or technical papers delivered by Timor-Leste. - Number of regional recommendations or good practices incorporated into national policies.	- Increase in the number of national initiatives aligned with regional standards on consumer protection and the Blue Economy. - Percentage increase in national technical capacity on consumer protection and marine market regulation issues. - Number of regional partnerships and projects established because of participation in these forums.	SHORT/MEDIUM TERM
14.16	Strengthen engagement with development partners, namely the World Bank, UNDP, the World Health Organization (WHO), the Asian Development Bank (ADB), and other institutions capable of securing financing for "blue growth".	- MFAC - MoF - Relevant ministries	- Number of Blue Economy cooperation projects and programmes approved and financed by development partners. - Number of joint technical missions and coordination meetings held with partners. - Percentage of financial commitments disbursed in relation to the total agreed for Blue Economy projects.	- Increase in the number of "blue growth" initiatives supported by international technical and financial assistance. - Percentage reduction in the funding gap identified in Blue Economy strategic plans. - Increase in the number of institutional capacities strengthened (units, systems, standards) with partner support.	SHORT/MEDIUM TERM
14.17	Promote the engagement of local and national entities, including the Timor-Leste Chamber of Commerce and Industry (CCI-TL), among others, as strategic partners to leverage the private sector in economic development.	- Relevant ministries and governance partners	- Number of cooperation agreements or protocols signed with local and national entities. - Number of joint projects implemented with each entity (CCI-TL, environmental and youth NGOs, etc.). - Number of support initiatives provided to field entities, such as Ekipa Tasi Mos Ataúro, Roman Luan NGO and the Laudato Si' Movement, among others to be selected. - Number of campaigns, clean-up actions, sustainable tourism projects	- Increase in the number of companies supported by CCI-TL operating in the Blue Economy under sustainability criteria. - Percentage reduction in plastic waste collected in intervention areas of Ekipa Tasi Mos Ataúro and partners. - Increase in the number of young people engaged in marine conservation and sustainable tourism projects promote by Roman Luan and the Laudato Si' Movement.	SHORT/MEDIUM TERM

			and plastic reduction initiatives developed in partnership.		
14.18	Support recycling industries, including at local level, through public procurement measures that give preference to sustainable and/or recycled products in public tenders and to services provided by private entities committed to sustainability.	- Relevant ministries, public agencies and governance partners	- Number of recycling companies and certified producers of recycled goods supported through public procurement policies. - Percentage of public contracts in relevant sectors that include sustainability and recycled content criteria. - Number of sustainable/recycled products procured by the Public Administration (by category).	- Percentage increase in domestic demand for locally produced recycled and sustainable products. - Increase in the number of jobs created in recycling industries linked to the Blue Economy and the circular economy. - Percentage reduction in the volume of recyclable waste sent for final disposal without recovery.	SHORT/MEDIUM TERM
14.19	Introduce policies to reduce barriers to the export of sustainable products and/or high-value recycled materials (e.g. used cardboard, steel scrap, among others), and to reduce transport costs for sustainability-certified products, to enhance competitiveness in international markets and promote the circular economy.	- Relevant ministries and governance partners	- Number of policy measures and regulatory instruments approved to facilitate the export of sustainable and recycled products. - Number of exporting companies dealing in recycled materials and sustainability-certified products. - Percentage average reduction in logistics and transport costs for eligible products.	- Increase in the number of sustainable products and recycled materials exported (e.g. used cardboard, steel scrap, others). - Percentage increase in export revenue associated with the sustainable circular and Blue Economy. - Enhanced international competitiveness of Timorese companies in this segment (measured by market expansion and new contracts).	SHORT/MEDIUM TERM

PILLAR 15: OCEAN SATELLITE ACCOUNT

STRATEGIC OBJECTIVES

- Approve the Ocean Satellite Account through a Government Resolution prior to the preparation of the next State General Budget, ensuring a pilot phase through the creation of budgetary markers.
- Measure the relevance of sea- and ocean-related activities for the country, enabling the estimation of the aggregate value of economic activities contributing to GDP.
- Support decision-making in the coordination of public policies related to the sea and the ocean.
- Contribute to improved strategic planning and to the sustainable management and development of maritime and coastal resources and activities.
- Assess the impact of maritime activities on the marine environment and biodiversity, enabling the sustainable use of marine resources.
- Monitor and evaluate the policies, measures and actions implemented, providing key data also to attract investment and create business opportunities.
- Correct and review the measures and actions implemented in a timely manner.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
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15.1	Develop budgetary markers for the Blue Economy, to account for public expenditure in the sector, through DGPO and in collaboration with ministerial budget lines, as a pilot project.	<ul style="list-style-type: none"> - PM/LMBO - MoF/DGPO - Relevant ministries 	<ul style="list-style-type: none"> - Number of expenditure lines identified and classified with Blue Economy markers. - Number of ministries/entities systematically applying the budgetary markers. - Percentage of the State General Budget analysed based on Blue Economy markers. - Number of annual budget reports including a specific section on Blue Economy expenditure. 	<ul style="list-style-type: none"> - Percentage increase in the accuracy of identifying public expenditure associated with the Blue Economy. - Increase in the number of budgetary decisions using marker information as a basis for prioritisation. - Percentage reduction in expenditure items relevant to the Blue Economy that are unclassified or misclassified. 	SHORT TERM
15.2	Develop the Ocean Satellite Account in the medium term through the National Statistics Institute, to account for the real, public and private economy of the Blue Economy sector.	<ul style="list-style-type: none"> - MoF/INETL - Governance partners 	<ul style="list-style-type: none"> - Number of Blue Economy activities and sub-sectors defined and integrated into the Satellite Account. - Number of data sources (surveys, administrative records, national accounts) mobilised for the Satellite Account. - Estimated percentage coverage of the Blue Economy in terms of output, value added and employment. - Number of INETL and other entity staff trained in satellite account methodologies. 	<ul style="list-style-type: none"> - Regular publication of estimates of gross output, value added and employment in the Blue Economy. - Percentage increase in the quality and disaggregation of data on sea- and ocean-related activities. - Increase in the number of users (ministries, partners, private sector) using the Ocean Satellite Account for analysis and planning. 	MEDIUM TERM
15.3	Ensure proper coordination between DGPO of the Ministry of Finance and INETL, with a view to defining markers that provide useful and appropriate information for the Satellite Account.	<ul style="list-style-type: none"> - MoF/INETL - Governance partners 	<ul style="list-style-type: none"> - Number of joint DGPO–INETL technical meetings and working groups held per year. - Number of joint protocols, technical notes or guidelines produced on budgetary and statistical markers. - Number of interoperable or linked databases between DGPO and INETL for the Blue Economy. 	<ul style="list-style-type: none"> - Percentage increase in consistency between budgetary statistics (expenditure) and economic statistics (Satellite Account) of the Blue Economy. - Percentage reduction in identified discrepancies between expenditure data and production/employment data for the same set of activities. - Increase in the number of joint DGPO–INETL reports presenting an integrated view of public effort and Blue Economy outcomes. 	MEDIUM TERM
15.4	Publish the Ocean Satellite Account every three years, without prejudice to the annual compilation of data enabling closer monitoring of the statistical evolution of the Blue Economy.	<ul style="list-style-type: none"> - MoF/INETL - Governance partners 	<ul style="list-style-type: none"> - Number of editions of the Ocean Satellite Account published (triennial). - Number of updates/annual monitoring reports produced between full editions. - Average time (in months) between the end of the reference year and the publication of results. - Number of downloads, copy requests or 	<ul style="list-style-type: none"> - Regular triennial publication of a complete and methodologically robust Ocean Satellite Account. - Percentage increase in the use of Ocean Satellite Account data in policy documents, sectoral plans and international reports. - Increase in the number of Blue 	MEDIUM TERM

			online accesses to Ocean Satellite Account reports.	Economy indicators reported to international organisations (e.g. UN, OECD, development partners) based on the Satellite Account.	
15.5	Create joint, intersectoral mechanisms for monitoring and evaluating implemented measures and actions.	- MoF/INETL - Other relevant ministries and governance partners	- Number of intersectoral coordination mechanisms established (committees, monitoring groups, data user panels). - Number of monitoring and evaluation meetings held per year on Blue Economy policies and projects. - Number of key performance indicators (KPIs) for the Blue Economy agreed and monitored intersectoral. - Number of monitoring and evaluation reports produced based on data from the Satellite Account and budgetary markers.	- Increase in the number of policy adjustments and reprogramming of measures undertaken based on statistical evidence from the Satellite Account. - Percentage reduction in the gap between planned targets and achieved results in Blue Economy domains. - Increase in the number of investment and business opportunities identified and promote based on consolidated Blue Economy data.	MEDIUM TERM

PILLAR 16: PLANNING, FINANCING AND MONITORING INSTRUMENTS

STRATEGIC OBJECTIVES

- Strengthen the Blue Economy Unit of LMBO with technical and financial means and specialised human resources, to ensure its capacity to coordinate the national Blue Economy strategy, guarantee collaboration and provide support to all implementing agencies, both public and private.
- Develop a concrete and integrated financing strategy for the implementation of the Blue Economy. This shall include a detailed analysis of total projected costs, a phased investment plan and clear mechanisms to attract and blend public and private financing.
- Integrate climate adaptation policies into Blue Economy policies across all sectors. This shall include coordination in the planning of port infrastructure, sites for aquaculture development and tourism projects to withstand sea level rise and intensified storms.
- Ensure the development of a locally based participatory process that guarantees the active involvement of coastal municipalities, *sucos* and fishing communities, with particular attention to the inclusion of women, young people and holders of traditional knowledge, in accordance with the principle of community ownership.
- Develop specific indicators sensitive to gender, youth and persons with disabilities for the implementation and monitoring of the economy, ensuring that these groups are not merely participants but beneficiaries and leaders of the process.
- Improve coordination with Development Partners, not only to enhance the planning and monitoring of policies and projects, but also to explore and operationalise financing mechanisms.
- Strengthen international cooperation (multilateral and bilateral) within the framework of the Blue Economy.
- Ensure financing for the blue transition through the development of a National Blue Economy Financing Roadmap, supported by public funds, public-private partnerships, donors and philanthropies, blue bonds, blue carbon credits, fees, licences and grants, among others.
- Develop fiscal analyses for the implementation of the Blue Economy, including revenue generation and fiscal risks associated with the development of the maritime and marine sector.

- Mobilise domestic revenue and ensure fiscal sustainability to support the promotion of the Blue Economy.
- Ensure appropriate monitoring and evaluation mechanisms to guarantee transparency and good governance of public policies.
- Ensure the necessary systematic political oversight to uphold effectiveness, legitimacy and normative coherence within a rule-of-law framework.

NO.	MEASURES AND ACTIONS	RESPONSIBLE ENTITIES / PARTNERS	INDICATORS	RESULTS	TIMEFRAME
16.1	Equip the Blue Economy Unit of LMBO (under the direct authority of the Prime Minister) with the technical and financial means necessary to carry out its mission of coordinating the national Blue Economy under the Prime Minister's direct supervision.	- PM/LMBO	- Number of technical staff assigned to the Blue Economy Unit (by profile: planning, finance, M&E, climate, marine biology and natural sciences, etc.). - Percentage of the annual budget requested for the Unit that is effectively approved and executed. - Number of equipment items and information systems acquired (planning software, databases, etc.). - Number of plans, opinions and reports produced by the Unit per year.	- Increase in the number of Blue Economy coordination processes led by the Unit. - Percentage increase in the Unit's technical response capacity, including legislation produced, awareness campaigns conducted, programme implementation, etc. – always in coordination with other relevant ministerial portfolios. - Increase in the number of ministries and entities that rely on the Unit as the focal point for Blue Economy coordination.	SHORT TERM
16.2	Review and harmonise the applicable legal framework in the field of the Blue Economy to ensure improved planning and budgeting in sectors such as fisheries, environment, tourism, coastal planning, biodiversity protection and maritime spatial governance, among others.	- PM/LMBO in coordination with PCM and the relevant ministries	- Number of laws, decree-laws and regulations reviewed or drafted with a focus on the Blue Economy. - Number of sectors covered (fisheries, environment, tourism, coastal planning, biodiversity, maritime governance, etc.). - Number of public and technical consultations conducted during legislative review processes.	- Percentage increase in coherence between sectoral legislation and the Blue Economy Policy (as assessed through legal opinions). - Percentage reduction in regulatory conflicts and gaps identified in previous diagnostics. - Increase in the number of planning and budgeting actions directly based on the new harmonised legal framework.	SHORT TERM
16.3	Strengthen the legal framework for the sustainable management of marine and coastal resources, aligning it with international best practices.	- PM/LMBO in coordination with PCM, the relevant ministries and governance partners	- Number of international conventions and standards incorporated into national legislation. - Number of regulations and technical standards on sustainable management approved (MPAs, fisheries, coastal tourism, etc.). - Number of training sessions delivered to magistrates, inspectors and public managers on the updated legal framework.	- Increase in the number of enforcement decisions and actions based on the updated legal framework. - Percentage reduction in illegal or unsustainable activities in monitored marine and coastal areas. - Increase in the number of areas under formally recognised sustainable management (MPAs, ZEPAE, etc.).	SHORT TERM
16.4	Implement working groups and coordination mechanisms, namely the Blue Economy Task Force, for the	- PM/LMBO - Whole of Government - Governance partners	- Number of formal working groups and coordination mechanisms established. - Number of Blue Economy Task Force	- Increase in the number of coordinated interministerial decisions in the field of the Blue Economy.	SHORT TERM

	implementation of Blue Economy-related initiatives, with priority given to the establishment of the necessary national legal frameworks.		meetings held per year. - Number of ministries, agencies and non-state actors represented in these mechanisms. - Number of members participating in working groups and coordination mechanisms contributing to social inclusion and climate change mitigation and adaptation issues (notably through MSSl, SEl, AND).	- Percentage reduction in duplication of initiatives and overlapping mandates among entities. - Increase in the number of legal frameworks, plans and programmes developed with multisectoral input. - Social and inclusion dimensions integrated transversally across all Blue Economy sectors.	
16.5	Create working groups with development partners and cooperation agencies for the exchange of knowledge and experience, implementation of initiatives and development of financing mechanisms.	- PM/LMBO - MFAC - MoF - Whole of Government - Governance partners	- Number of coordination groups or platforms with development partners on the Blue Economy. - Number of coordination meetings and joint missions held per year. - Number of project proposals and financing mechanisms developed in partnership.	- Increase in the number of projects financed or co-financed by partners in the field of the Blue Economy. - Percentage increase in the alignment of partner projects with national Blue Economy priorities. - Percentage reduction in identified gaps and overlaps within cooperation portfolios.	SHORT TERM
16.6	Develop a concrete and integrated financing strategy for the implementation of the Blue Economy, with a detailed analysis of total projected costs and a phased investment plan or clear mechanisms to attract and blend public and private financing.	- MoF - Whole of Government - Governance partners	- Number of financing strategy documents drafted and approved (including total cost estimates and a phased plan). - Number of financing sources identified (public funds, PPPs, donors, blue bonds, etc.). - Percentage of estimated financing needs with potential funding sources mapped.	- Increase in the number of Blue Economy projects with clear and sustainable financing plans. - Percentage reduction in the financing gap for priority Blue Economy targets. - Increase in the number of blended finance operations and PPPs structured based on the strategy.	SHORT TERM
16.7	Develop specific gender-, youth- and disability-sensitive indicators for the implementation and monitoring of the economy.	- MSSl - SEl	- Number of indicators disaggregated by gender, age and disability defined for the Blue Economy. - Number of data collection systems adjusted to gather disaggregated information. - Percentage of monitoring reports presenting disaggregated data for these groups.	- Percentage increase in the participation of women, young people and persons with disabilities in Blue Economy programmes and employment. - Increase in the number of specific inclusion measures implemented in projects (quotas, targeted training, entrepreneurship support). - Percentage reduction in inequalities in access to Blue Economy benefits among different population groups.	SHORT TERM
16.8	Integrate climate adaptation policies into Blue Economy policies, across all sectors.	- MoTE/AND	- Adoption and implementation of the “Nationally Determined Contribution of Timor-Leste 2026–2035”, which reinforces the country’s orientation towards low-carbon development and places climate ambition at the centre of its long-term vision.	- Increased resilience and adaptation to climate change. - Percentage reduction in damage and disruptions to coastal and marine infrastructure due to extreme climate events. - Increase in the number of Blue Economy	SHORT TERM

			<ul style="list-style-type: none"> - Number of sectoral plans (fisheries, ports, tourism, energy, etc.) revised to integrate climate adaptation and the Blue Economy. - Number of coastal, port and aquaculture infrastructure projects that include climate resilience criteria. - Percentage of Blue Economy investments subject to climate risk analysis. 	<ul style="list-style-type: none"> projects designed based on climate change scenarios. - Percentage increase in the resilience of coastal communities benefiting from Blue Economy projects. 	
16.9	Establish working and knowledge-sharing mechanisms with the national private sector to assess needs, constraints and ambitions, with a view to the potential involvement of the public sector.	<ul style="list-style-type: none"> - PM/LMBO - VPM I and VPM II - Relevant ministries 	<ul style="list-style-type: none"> - Number of forums, surveys, consultations and working groups with the private sector held annually. - Number of national companies involved in consultative and participatory processes in the development of policies and programmes. - Number of diagnostic reports on the needs and barriers of the private sector within the Blue Economy. 	<ul style="list-style-type: none"> - Increase in the number of policy measures designed or adjusted based on contributions from the private sector. - Percentage increase in national private investment in Blue Economy sectors. - Percentage reduction in identified barriers (fiscal, regulatory and informational) to private investment. 	SHORT TERM
16.10	Develop and implement public policies that support the development of the Blue Economy and the training of qualified human resources, including tax incentives for companies investing in capacity-building.	<ul style="list-style-type: none"> - PM/LMBO - VPM I and VPM II - Relevant ministries 	<ul style="list-style-type: none"> - Number of policies, programmes and tax incentives approved for companies and workers in the Blue Economy. - Number of beneficiaries of capacity-building measures (training, scholarships, internships) in Blue Economy sectors. - Number of companies benefiting from tax incentives linked to investment in capacity-building and sustainable practices. 	<ul style="list-style-type: none"> - Percentage increase in the qualification level of the workforce employed in Blue Economy sectors. - Increase in the number of companies investing in continuous training and green/blue innovation. - Percentage increase in productivity in sectors supported by capacity-building policies and tax incentives. 	SHORT/MEDIUM TERM
16.11	Strengthen Timor-Leste's participation in regional and international initiatives related to the Blue Economy, such as ASEAN, the Coral Triangle Initiative, the CPLP, among other cooperation platforms, ensuring adequate funding for such participation.	<ul style="list-style-type: none"> - PM/LMBO - VPM I and VPM II - MFAC - Relevant ministries 	<ul style="list-style-type: none"> - Number of regional and international initiatives in which Timor-Leste actively participates per year. - Number of technical interventions, documents and proposals submitted by Timor-Leste in those forums. - Number of agreements, joint programmes or regional projects resulting from such participation. 	<ul style="list-style-type: none"> - Increase in the number of regional partnerships and projects that directly benefit Timor-Leste's Blue Economy. - Percentage increase in Timor-Leste's international visibility as a country committed to a sustainable Blue Economy. - Increase in the number of technical and financial resources mobilised through regional platforms. 	SHORT/MEDIUM TERM
16.12	Promote technical and financial support from development agencies and international organisations for the implementation of the Blue Economy, across its various and interdependent dimensions.	<ul style="list-style-type: none"> - PM/LMBO - VPM I and VPM II - MFAC - MoF - Relevant ministries 	<ul style="list-style-type: none"> - Number of projects funded by development agencies specifically for the Blue Economy. - Total amount of external funding mobilised annually for Blue Economy initiatives. - Number of technical missions, studies and specialised assistance provided by partners. 	<ul style="list-style-type: none"> - Percentage increase in the institutional capacity of national bodies involved in the Blue Economy. - Increase in the number of international best practices incorporated into national projects and policies. - Percentage reduction in identified funding gaps for key Blue Economy priorities. 	SHORT/MEDIUM TERM

16.13	Integrate the Blue Economy into national planning and budgeting instruments, including alignment with the Public Financial Management System.	- MoF - Relevant ministries	- Number of planning instruments (Annual Plans, National Development Plan, sectoral strategies) incorporating Blue Economy targets. - Number of budget programmes and sub-programmes with Blue Economy markers in the Public Financial Management System. - Percentage of public expenditure identified as related to the Blue Economy.	- Increase in the number of Blue Economy projects formally integrated into national plans and budgets. - Percentage increase in the predictability and transparency of public funding for the Blue Economy. - Percentage reduction in Blue Economy initiatives not aligned with approved budgetary priorities.	SHORT/MEDIUM TERM
16.14	Develop the financing plan for the blue transition through a National Blue Economy Financing Roadmap, within the framework of the Integrated National Financing Framework, combining public funds and including innovative instruments such as blue bonds, blended finance, public-private partnerships, international cooperation and the mobilisation of philanthropic actors.	- MoF - Relevant ministries	- Number of versions of the National Financing Roadmap prepared and approved. - Number of innovative financial instruments considered (blue bonds, blended finance, public-private partnerships, philanthropy, etc.). - Number of consultations with ministries, the private sector and development partners during the drafting process.	- Increase in the number of concrete operations structured based on the roadmap (blue bonds, public-private partnerships, thematic funds). - Percentage increase in the diversification of Blue Economy financing sources. - Percentage reduction in dependence on a single source of financing (petroleum revenues).	SHORT/MEDIUM TERM
16.15	Establish and regulate operational and management mechanisms for the implementation of new blue financial instruments, including the necessary technical capacity-building in this field, while ensuring transparency, accountability, and the monitoring and evaluation of investments in the sector.	- MoF - Relevant ministries	- Number of regulations, operational manuals and procedures approved for blue financial instruments. - Number of officials trained in the management of blue financial instruments and in safeguards (environmental, social and fiduciary). - Number of blue financial operations launched (blue bonds, funds, credit lines, etc.).	- Percentage increase in efficiency and transparency in the management of blue financial instruments. - Percentage reduction in fiduciary and governance risks identified in independent audits. - Increase in the number of investors interested in Timorese blue financial instruments.	SHORT/MEDIUM TERM
16.16	Establish financial incentive funds to protect biodiversity and its ecosystems throughout the country. This Blue Tourism Community Projects Support Fund shall be allocated exclusively for community use, upon proposal by organisations, associations and cooperatives in the field of eco-establishments for the production and trade of handicrafts, local restaurants, seaweed production, etc.	- MoF - Relevant ministries	- Number of funds created and made operational with clear access and management regulations. - Number of community projects supported (blue tourism, handicrafts, seaweed, local restaurants, etc.). - Total amount disbursed annually to community projects.	- Increase in the number of community initiatives contributing to conservation and the local Blue Economy. - Percentage increase in the income of beneficiary communities supported by the fund. - Percentage reduction in practices harmful to biodiversity in the intervention areas of supported projects.	SHORT/MEDIUM TERM
16.17	Coordinate external financing and public-private partnerships (PPPs) under national fiscal rules, through the	- MoF - Relevant ministries	- Number of external financing and PPP proposals analysed and validated in accordance with national fiscal rules.	- Increase in the number of Blue Economy projects with financially sound structures compliant with national rules.	SHORT/MEDIUM TERM

	Ministry of Finance, ensuring the efficient and transparent channelling of financing proposals from donors and the private sector, and safeguarding sound public financial management.		<ul style="list-style-type: none"> - Number of coordination meetings between the Ministry of Finance, sectoral entities and financial partners. - Percentage of financed Blue Economy projects fully compliant with national fiscal and public financial management rules. 	<ul style="list-style-type: none"> - Percentage reduction in fiscal risks associated with external financing and PPPs. - Percentage increase in partners' and investors' confidence in Timor-Leste's public financial management. 	
16.18	Align Blue Economy initiatives within national planning systems in the short, medium and long term, including the Annual Action Plans and the State General Budget, also through budget markers that will form part of the Ocean Satellite Account.	<ul style="list-style-type: none"> - MoF - Relevant ministries 	<ul style="list-style-type: none"> - Number of Blue Economy programmes and projects explicitly integrated into the Annual Action Plans. - Number of budget lines assigned with Blue Economy markers. - Percentage of Blue Economy projects reporting data to the Ocean Satellite Account. 	<ul style="list-style-type: none"> - Increase in the number of Blue Economy initiatives with coordinated planning and budgeting. - Percentage increase in the traceability of expenditure and results within the Blue Economy. - Percentage reduction in discrepancies between planning, budgeting and actual implementation in Blue Economy projects. 	SHORT/MEDIUM TERM
16.19	Include Blue Economy initiatives in performance monitoring and evaluation mechanisms, to be aligned with the Ocean Satellite Account.	<ul style="list-style-type: none"> - MoF - Relevant ministries 	<ul style="list-style-type: none"> - Number of Blue Economy performance indicators incorporated into the national monitoring and evaluation system. - Number of periodic performance reports (annual, multiannual) that include Blue Economy sections. - Number of sectoral entities regularly reporting data for Blue Economy monitoring and evaluation. 	<ul style="list-style-type: none"> - Increase in the number of policy decisions adjusted based on Blue Economy monitoring and evaluation evidence. - Percentage reduction in objectives not monitored or lacking adequate data. - Percentage increase in transparency and accountability regarding Blue Economy results. 	SHORT/MEDIUM TERM
16.20	Design and implement a revenue mobilisation strategy, incorporating licensing, service fees, environmental taxes and other relevant fiscal instruments for Blue Economy sectors.	<ul style="list-style-type: none"> - MoF - Relevant ministries 	<ul style="list-style-type: none"> - Number of fiscal and parafiscal instruments created or adjusted for Blue Economy sectors. - Number of taxpayers (companies, tourism operators, fisheries, etc.) covered by the new mechanisms. - Annual amount of revenue generated from licences, fees and environmental taxes linked to the Blue Economy. 	<ul style="list-style-type: none"> - Percentage increase in domestic revenues dedicated to supporting the Blue Economy. - Percentage reduction in exclusive dependence on external financing to fund Blue Economy policies. - Increase in the number of conservation and management measures financed through the sector's own revenues. 	SHORT/MEDIUM TERM
16.21	Improve the short-, medium- and long-term Action Plan for the Blue Economy Policy, including the incorporation of targets, means of verification and the refinement of the respective performance indicators.	<ul style="list-style-type: none"> - Relevant ministries 	<ul style="list-style-type: none"> - Number of revisions of the Action Plan carried out with updated targets and indicators. - Number of Strategic Objectives with specific, measurable and time-bound indicators. - Percentage of measures and actions under the Plan covered by targets, performance indicators and results. 	<ul style="list-style-type: none"> - Increase in the number of Blue Economy targets with defined baselines and quantified goals. - Percentage increase in clarity in the link between actions, resources and expected results. - Percentage reduction in actions without clear success criteria or without monitoring. 	SHORT TERM
16.22	Establish monitoring, reporting and evaluation mechanisms for policies and	<ul style="list-style-type: none"> - Relevant ministries 	<ul style="list-style-type: none"> - Number of formal reporting mechanisms (panels, dashboards, periodic reports) 	<ul style="list-style-type: none"> - Increase in the number of timely adjustments to measures based on 	SHORT TERM

<p>actions within the scope of the Blue Economy, ensuring that necessary corrections are made in a timely manner.</p>	<p>established.</p> <ul style="list-style-type: none"> - Number of surveys conducted for the monitoring and evaluation of implemented policies and measures. - Number of annual review and correction cycles for Blue Economy policies and projects. - Number of external evaluation recommendations incorporated into policy reviews. 	<p>performance evidence.</p> <ul style="list-style-type: none"> - Percentage reduction in prolonged delays in the implementation of corrective actions. - Enhancement and strengthening of the monitoring and evaluation system for Blue Economy measures, including through the institutionalisation of surveys for this purpose. - Percentage increase in the overall effectiveness of policies, as reflected in targets achieved or exceeded. 	
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DEFINITIONS

Access to genetic resources: the acquisition and use of biological material or other material containing genetic material and derivatives of genetic material from in situ and ex situ conditions, and any associated traditional knowledge, for academic and applied research purposes, conservation, or commercial use, among other applications.

Adverse effects of climate change: modifications in the physical environment or biota resulting from climate change that have significant negative effects on the composition, resilience or productivity of natural and managed ecosystems, on the functioning of socioeconomic systems, or on human health and well-being.

Agroforestry: land with combined use of agroforestry plantations with agricultural crops or livestock farming, simultaneously or sequentially, with a view to increasing and diversifying agricultural and forestry production and conserving natural resources.

Alternative energy: energy originating from natural sources that have the capacity for regeneration, such as wind, solar, seawater, geothermal and biomass energy, and other renewable sources.

Aquaculture: an activity aimed at the reproduction and growth, fattening, maintenance and improvement of aquatic species for production purposes, carried out in facilities supplied with freshwater, brackish water or seawater.

Aquifer: an underground bed or layer of permeable rock, sediment or soil that stores water.

Archaeological heritage: heritage relating to remains and assets attesting to human life, found underground, obtained through scientific archaeological research or as isolated finds, constituting evidence of civilisation or culture and bearing significant cultural interest.

Architectural heritage: built heritage constructed by human beings with cultural value, bearing witness to their ways of life and their relationship with the environment over time.

Basic sanitation: access to adequate sanitation facilities, including a latrine for defecation, handwashing facilities, proper waste disposal and drainage systems to eliminate stagnant water.

Biodiversity: the diversity among living organisms from all sources, including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part, comprising diversity within species, between species and of ecosystems (see biological diversity).

Biological diversity: the variability among living organisms from all sources, including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; it includes diversity within species, between species and of ecosystems (see biodiversity).

Biotechnology: any technological application that uses biological systems, living organisms or their derivatives to create or modify products or processes for specific use.

Blue carbon: carbon stored or sequestered in coastal and marine ecosystems, including mangroves, seagrass meadows and other aquatic habitats, which contribute to climate change mitigation through the capture and retention of carbon dioxide and other greenhouse gases, reinforcing States' obligations to protect the marine environment against adverse changes resulting from human activities.

Blue economy: a model of economic development based on the sustainable use of marine and coastal resources under the jurisdiction or sovereignty of the State, as well as on the high seas where applicable, which promotes economic growth, employment and social well-being, while simultaneously ensuring the conservation of marine and coastal ecosystems and compliance with international obligations relating to equitable exploitation and protection of the marine environment, in accordance with UNCLOS.

Climate change: a modification of the climate attributable directly or indirectly to human activity that alters the composition of the global atmosphere and which, in addition to natural climate variability, is observed over comparable periods of time.

Climate change adaptation: measures aimed at reducing the vulnerability of natural and human systems to the impacts of climate change.

Climate change mitigation: an action or set of actions aimed at reducing the emission of greenhouse gases into the atmosphere.

Climate system: the totality of the atmosphere, hydrosphere, biosphere and lithosphere and their interactions.

Coastal strip: the portion of the territory where the sea, assisted by wind action, directly exerts its influence, extending landwards to a strip of 50 metres measured from the line of highest astronomical tide, and seawards to the 30-metre bathymetric contour.

Coastal waters: surface waters situated on the landward side of a line whose points are located one nautical mile seaward from the nearest point of the baseline from which the limit of the territorial waters is measured, extending, where applicable, to the outer limit of transitional waters.

Coastal zones: the portion of territory directly and indirectly influenced, in biophysical terms, by the sea, extending landwards to a limit defined by specific regulation, measured from the line of highest astronomical tide, and seawards to the limit of the territorial sea.

Collective-use facilities: buildings and land areas designated to meet the collective needs of populations in the fields of health, education, public administration, social assistance, culture, sport, recreation and leisure, defence, public security, civil protection and others.

Commercial fishing: fishing carried out by natural or legal persons, individually or collectively, for profit.

Community: a grouping of families, clans or individuals living within a territorial jurisdiction at suco level or below, with common interests, namely regarding residential, agricultural, forest or agroforestry areas, and with shared use of natural or forest resources.

Community forests: forests located on community property or State forests subject to community management agreements.

Community tourism: tourism within urban settlements whose operation, maintenance and services are predominantly the responsibility of local communities, and which preferably makes use of traditional architecture.

Components of biodiversity: ecosystems and habitats, species and genes.

Continental shelf: the outer limit of the continental shelf of Timor-Leste is defined by a line each point of which is situated at a distance of two hundred nautical miles from the nearest point of the baseline, or by the outer edge of the continental margin where the continental margin extends beyond two hundred nautical miles from the baseline.

Coral reefs: biogenic formations composed predominantly of reef-building coral colonies and associated organisms, developing in shallow tropical and subtropical waters under the sovereignty or jurisdiction of the coastal State, characterised by high biodiversity and sensitivity to environmental changes, performing crucial functions in shoreline protection, maintenance of marine living resources and support for tourism, and subject to special protection in accordance with the duty to preserve the marine environment provided for under UNCLOS.

Critical habitat: a specific area necessary to ensure that an organism or population of a species can survive and thrive throughout all stages of its life.

Cultural heritage: the set of tangible and intangible assets created or incorporated by the Timorese people throughout history, relevant to the formation and development of Timorese cultural identity.

Ecological corridor: an identified tract of habitat that connects protected areas or restricted access zones within a protected area, of sufficient size and distribution to counteract ecosystem and habitat fragmentation and to allow and facilitate species migration.

Ecosystem: a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.

Ecosystem approach: a strategy for the integrated, long-term management of terrestrial, aquatic, coastal and marine ecosystems, wetlands and their environmental components, which places human needs at the centre of biodiversity management and promotes the conservation and sustainable use of resources in an equitable manner.

Ecosystem services: benefits that people obtain from ecosystems, sometimes also referred to as environmental services. These include provisioning services, such as food, water, timber and fibre; regulating services, related to climate, floods, disease, waste and water quality; cultural services, providing aesthetic, spiritual and recreational benefits; and supporting services, such as soil formation, photosynthesis and nutrient cycles.

Ecotourism: environmentally sustainable, socially responsible tourism with cultural characteristics practised in natural areas, contributing to the improvement of community livelihoods and the promotion of conservation of the natural environment and cultural heritage.

Emissions: the release of greenhouse gases and/or their precursors into the atmosphere over a specified area and during a given period.

Endangered species: species of fauna or flora that are protected or endangered, in accordance with the legislation in force.

Endemic species: species of fauna or flora that are native exclusively to a specific territory or area.

Environment: as defined under the legislation in force in Timor-Leste, the set of physical, chemical and biological organisms, natural resources and living beings, including humans, their behaviour and property, that influence the continuation and quality of human life, of other living beings and the quality of ecosystems.

Environmental assessment: a generic concept referring to the procedure aimed at deciding on the environmental feasibility of implementing certain projects, based on environmental assessment and management instruments defined by law (Decree-Law on Environmental Licensing), comprising: i) Environmental Impact Assessment: the environmental assessment procedure for Category A projects; ii)

Initial Environmental Examination (IEE): the environmental assessment procedure for Category B projects.

Environmental Assessment Instruments: preventive environmental policy instruments within the Environmental Assessment procedure, comprising the Environmental Impact Statement and the Environmental Management Plan.

Environmental components: the various elements that constitute the environment and whose interaction enables its balance, including air, water, soil, subsoil, living beings, renewable and non-renewable natural resources and socioeconomic conditions.

Environmental degradation or damage: an adverse alteration of the characteristics of the environment and includes, inter alia, pollution, desertification, erosion, deforestation, loss of biodiversity, reduction of species and reduction in the quantity and quality of natural ecosystems and groundwater.

Environmental emission standards: the set of rules defining the maximum amount of a pollutant that may be discharged from a single fixed or mobile source.

Environmental impact: the set of positive and negative changes produced in environmental and social parameters, including, inter alia, people and their economic and social structures, air, water, fauna, flora or their habitats, over a given period and within a defined area, resulting from the implementation of a project. Impacts are analysed by comparing the situation that would occur, over that period and in that area, if the project were not implemented.

Environmental Licence: a written decision granting the proponent the right to carry out the project, with the aim of ensuring integrated environmental prevention and control.

Environmental management: a planned and coordinated process aimed at decision-making and implementation to regulate the interaction between human beings and the natural environment, in order to ensure the sustainable use of environmental components, the proper protection of species and their habitats, the maintenance of environmental services, the preservation of natural and cultural heritage and the sustainable development of the economy.

Environmental quality standards: the set of rules defining the maximum permissible concentration levels of pollutants allowed in environmental components.

Environmental services: ecosystem functions that create and provide benefits for human beings and for ecosystems themselves, including the sequestration, storage and processing of greenhouse gases, the generation, filtration and protection of water, and the protection of biodiversity and natural beauty.

Environmentally sustainable development: development based on environmental and cultural management that effectively responds to the needs of present generations without compromising environmental balance and safeguarding the needs of future generations (as defined in the Framework Law on the Environment).

Erosion: the detachment of soil surface material through the natural action of wind or water, which may be intensified by human practices involving the removal of vegetation.

Estuary: a partially enclosed coastal body of water consisting of brackish water, with one or more rivers or streams flowing into it and with a semi-open or open connection to the sea.

Exclusive Economic Zone: the outer limit of the exclusive economic zone of Timor-Leste is defined by a line each point of which is situated at a distance of two hundred nautical miles from the nearest point of the baseline.

Exotic species: non-indigenous species of fauna and flora occurring in a given territory that does not correspond to their natural range of distribution.

Ex situ conservation: the conservation of components of biodiversity outside their natural habitats.

Fishing: the attempt, preparation for, or actual activity of catching, harvesting, removing or collecting biological species, including corals, using any means, gear, method or equipment.

Forest: an area of at least 0.5 hectares with trees of actual or potential height exceeding 5 metres, which have grown naturally forming a natural ecosystem, or which have been planted, and with a canopy cover of more than 15 per cent, not under agricultural use or other non-forest use, or an area classified as forest under the law.

Forest resource: any genetic resource, organism or part thereof, populations or any other type of biotic component of ecosystems of current or potential value or utility for humanity located within a forest area, namely trees or non-timber forest resources.

Forest restoration: the set of activities relating to the rehabilitation of degraded forest ecosystems to partially or fully recover their original functions and maintain conditions conducive to their persistence and evolution.

Genetic resources: any material of plant, animal, microbial or other origin containing functional units of heredity of actual or potential value. Marine genetic resources are genetic resources of marine or coastal origin, including material of plant, animal, microbial or other nature present in marine and coastal ecosystems located in areas under national sovereignty or jurisdiction or on the high seas, containing functional units of heredity with real or potential value for use, namely for marine scientific research, conservation, technological development or commercial exploitation, in accordance with UNCLOS rules relating to marine scientific research and the utilisation of marine resources.

Genetically modified organism: any biological entity capable of replication or of transferring genetic material that possesses a novel combination of genetic material not occurring through natural recombination, including both living and non-living modified organisms.

Geological heritage: an abiotic and non-renewable natural resource consisting of rock formations and sedimentary accumulations, landforms and landscapes, minerals and fossils, as well as collections of geological objects, of scientific value and which may also hold cultural, educational, tourism and recreational value.

Greenhouse gases: gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation.

Groundwater: all water located below the surface of the ground.

Habitat: the place or site where an organism or population naturally lives and, during the different stages of its life cycle, finds shelter, food and conditions for reproduction.

Hazardous waste: any residual material capable of damaging the environment or harming human health, such as flammable, corrosive or reactive substances.

Healthcare waste: waste originating from hospitals, health centres, laboratories, veterinary clinics or other similar establishments that may be contaminated by biological, physical or chemical products posing a risk to human health or danger to the environment.

High Seas: areas of the sea not included in the exclusive economic zone, the territorial sea or the internal waters of any State, nor in the archipelagic waters of an archipelagic State.

Illegal, unreported and unregulated fishing (IUU): fishing activities (a) conducted in waters under national jurisdiction without the authorisation of the coastal State or in violation of the conditions set out in the licence; (b) not reported or reported incorrectly or incompletely to national authorities or competent regional fisheries management organisations, in breach of reporting obligations; or (c) carried out in areas or for species where no applicable conservation or management measures exist, or in disregard of measures adopted by regional fisheries management organisations or binding international instruments, contrary to the duties of cooperation and conservation of marine living resources provided for under UNCLOS.

Inland waters: the internal waters of the territory of Timor-Leste. The outer limit of the internal waters of the territory of Timor-Leste is the baseline from which the breadth of Timor-Leste's territorial sea is measured.

In situ conservation: the conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings and, in the case of domesticated or cultivated species, in the environments where they have developed their specific properties.

Integrated Coastal Zone Management (ICZM): a dynamic and continuous process of planning, coordination and management of uses and activities carried out in coastal zones and adjacent marine areas under national sovereignty or jurisdiction, aimed at balancing environmental, social, cultural and economic objectives, ensuring the rational and sustainable use of resources, the protection of the marine and coastal environment and the reduction of risks, in accordance with the general principles of UNCLOS.

Integrated Water Resources Management: a coordinated process of development, planning and management of water, land and related resources, which seeks to maximise economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.

Invasive alien species: non-indigenous species of fauna and flora not native to a specific territory or area that become established in natural or semi-natural ecosystems or habitats and, as agents of change, threaten native biological diversity.

Landscape heritage of cultural value: heritage relating to natural landscapes that bear witness to the way in which human beings have interacted with the natural environment over time, including sites and natural elements endowed with importance and religious significance, subject to traditional worship, though not constructed by humans, namely hills, springs, trees and stones, among others.

Lisan: a set of unwritten rules in force within a given society, at a given stage of its development, which dictate behaviour and assign rights and obligations to members of the same community belonging to the same genealogical lineage.

Lisuk: a rule of customary law regulating the model of mutual cooperation in land cultivation, animal husbandry and house construction work by members of a given community.

Management plan: a planning instrument for administration and management containing technical instructions to be applied in each forest area, river basin or protected area.

Mangrove: coastal vegetation formations characteristic of sheltered tropical coastlines composed of tree and shrub species that grow below the high-tide level, whose roots require freshwater, but which are regularly inundated with saline water.

Marine litter: any persistent solid material, including plastic, metal, glass, rubber, paper, textiles or other waste, discarded, abandoned or lost in the marine or coastal environment, including beaches, seabeds and the water column, resulting directly or indirectly from human activity, whether land-based or sea-based, and which causes or may cause negative impacts on ecosystems, human health or legitimate uses of the sea, constituting marine pollution within the meaning of UNCLOS.

Marine living resources: all living marine organisms, including fish, invertebrates, marine mammals, seabirds, algae, marine plants and other living beings exploited or potentially exploitable for food, medicinal, energy, industrial, recreational or cultural purposes, located in areas under the sovereignty or jurisdiction of the coastal State or on the high seas, whose conservation and exploitation must observe the principles of UNCLOS relating to the conservation of marine living resources and their optimal and sustainable utilisation.

Marine mining: activities of prospecting, exploration, extraction and utilisation of mineral resources located in the seabed and subsoil, including sands, hydrocarbons, metallic and non-metallic minerals, carried out (a) on the continental shelf or in the exclusive economic zone, under the sovereign rights of the coastal State, in accordance with UNCLOS; or (b) in the Area, under the competent international authority, in accordance with the international legal regime and subject to rules for the protection of the marine environment and maritime spatial planning.

Marine renewable energy: energy generated from renewable marine and coastal resources, including, in particular, wave, tidal, marine current, thermal and salinity gradient energy, as well as offshore wind energy, exploited by the coastal State in the territorial sea, the exclusive economic zone and the continental shelf, in the exercise of its sovereign rights and jurisdiction as provided for under UNCLOS, in an environmentally sustainable manner.

Maritime safety/maritime enforcement: the set of measures, actions and procedures adopted by the coastal State and flag States to ensure the safety of navigation, persons, goods and infrastructure at sea, as well as the prevention, detection and repression of unlawful activities, including illegal fishing, intentional pollution and other violations of applicable rules in the territorial sea, the exclusive economic zone and other areas under national jurisdiction, in accordance with the rights and duties established under UNCLOS.

Maritime spatial planning: a public, systematic and participatory process of spatial and temporal analysis and allocation of uses and activities within the maritime space under national sovereignty or jurisdiction, including fisheries, aquaculture, navigation, nature conservation, energy exploitation, mineral resource extraction, installation of submarine cables and pipelines and other uses, aimed at promoting the sustainable use of the sea, reducing conflicts between uses and protecting the marine environment, in coherence with the regime of maritime zones established by UNCLOS.

Maritime transport/maritime navigation: the activity of transporting persons, goods or merchandise by sea, carried out by ships or other vessels on domestic or international routes, exercised in accordance with the freedom of navigation on the high seas, the right of innocent passage in the territorial sea and transit passage through straits used for international navigation, as well as with other rules on safety, pollution prevention and maritime spatial planning provided for under UNCLOS and national legislation.

Microplastics: solid plastic particles, primary or secondary, measuring less than 5 millimetres, persistent and insoluble in water, resulting from industrial processes or the degradation of larger plastic objects, which may be transported and dispersed in the marine environment and can cause marine pollution and affecting living resources and other legitimate uses of the sea.

National maritime waters: the maritime zones of the country comprising internal maritime waters, the territorial sea and the exclusive economic zone, as defined by law.

National Park: an area classified under the National System of Protected Areas containing one or more ecosystems comprising plant and animal species, natural and humanised landscapes, geomorphological zones and habitats of scientific, socioeconomic, ecological, landscape, recreational, cultural or educational interest, or where there exists a natural landscape of notable aesthetic value.

National waters: the waters of river basins and national maritime waters.

Natural reserve: an area classified under the National System of Protected Areas with characteristics of special ecological, scientific, geological or geomorphological interest, including lulik sites or areas intended to protect specific species or habitats.

Natural resources: all living and non-living components existing within the ecosystem.

Nature conservation: the management of human use of nature in such a way as to ensure, on a permanent basis, the maximum yield compatible with maintaining the regenerative capacity of all living resources.

Nature tourism: an integrated and diversified tourism product that promotes the discovery, appreciation and enjoyment of natural, architectural, landscape and cultural heritage, comprising tourism enterprises and activities that prioritise the natural and cultural component.

Nautical mile: the International Nautical Mile of 1,852 metres.

Non-renewable natural resources: all living and non-living components existing within the ecosystem that are finite in nature and not subject to regeneration within a time frame relevant to human beings.

Plantations: areas where trees of specified species are planted with the objective of supplying raw material for timber processing for commercial purposes, including, inter alia, construction timber, furniture and pulp for paper, or for other protection or conservation purposes.

Plastic object: any object made of plastic or bioplastic material used for carrying or protecting products and goods, whether as primary or secondary packaging.

Plastic or plastic material: a polymer to which additives or other substances may have been added, which may constitute the main structural component of finished materials or objects.

Polluter: natural or legal persons, public or private, who commit acts or actions of pollution.

Polluting substances: any substances, vibrations, light, heat or noise that may temporarily or irreversibly alter the natural characteristics and qualities of the environment, interfere with its normal conservation or evolution, or have any other harmful effect.

Pollution: the direct or indirect introduction, by human action, of micro-organisms, substances, waste or heat into the environment, liable to harm human health or environmental quality and to cause deterioration of material assets, or deterioration of or interference with environmental use and the legitimate use of water and soil. This definition includes activities considered noisy, liable to produce harmful or disturbing noise for persons in sensitive locations or for those residing, working or remaining in the vicinity of where such activities occur.

Polymer: any macromolecular substance obtained through: (i) a polymerisation process, such as polyaddition, polycondensation or any similar transformation of monomers and other initiator substances; or (ii) chemical modification of natural or synthetic macromolecules; or (iii) microbial

fermentation.

Protected area: a specifically defined area of land, freshwater or sea dedicated to the protection and maintenance of biological diversity, environmental services and associated cultural resources, managed through legal or other effective means.

Protected environmental area: an area constituting the habitat of a threatened species; an area defined as protected or sensitive under legislation in force in Timor-Leste; or an area where tangible assets and cultural heritage assets are located, including built heritage, archaeological heritage (terrestrial, riverine and marine), traditional architecture and traditional sites of cultural relevance associated with local customs and ways of life.

Protected species: species of fauna and flora that are threatened or any other species identified as protected under the law or under any international agreement to which the Democratic Republic of Timor-Leste is a party.

Public water supply system: the set of public works, equipment and services for the supply of water to a community, services and other consumers, including all infrastructure, assets and components, from the point at which water enters the system to the connection point where the water exits.

Recycling: any recovery operation, including the reprocessing of organic materials, through which waste materials are reprocessed into products, materials or substances for their original purpose or for other purposes.

Reforestation: the re-establishment, through natural regeneration or planting, of forest areas that previously existed but were deforested, removed or destroyed in the past due to natural disturbances or human intervention.

Reuse: any operation by which products or components that are not waste are used again for the same purpose for which they were conceived.

Risk assessment: includes the potential direct and indirect risk, in the short, medium and long term, to human health, the environment and biodiversity, arising from an activity, process or action, estimating the likelihood of the risk occurring and the damage that would be caused if it occurs.

River basin: the area in which water is collected and whose runoff converges towards a single outlet point, such as lakes, rivers, streams or the sea.

Rural land: land which, by its recognised aptitude, is intended, inter alia, for agricultural, livestock or forestry use, conservation and enhancement of natural resources, exploitation of geological or energy resources, as well as land intended for natural, cultural, tourism or recreational spaces, or land that does not demonstrate aptitude or justification for allocation to urban purposes.

Sanitation: the safe management and disposal of solid and liquid waste and the practice of healthy behaviours.

Seagrass meadows: submerged vegetative formations dominated by rooted marine higher plants, occurring on sandy or muddy seabeds in shallow coastal zones under the sovereignty or jurisdiction of the State, performing essential ecological functions, including primary production, shelter and feeding grounds for numerous marine living resource species and the sequestration of blue carbon, contributing to the protection and preservation of the marine environment.

Single-use plastic packaging: various plastic or bioplastic materials and objects which, by their characteristics, are intended to be used only once, whether as primary or secondary packaging, to

contain, protect, handle, deliver and present goods, from raw materials to processed products and from producer to consumer.

Sink: any process, activity or mechanism that removes a greenhouse gas, its precursor or an aerosol from the atmosphere.

Small-scale fishing: subsistence, artisanal and national semi-industrial fishing.

Solid waste: any material that has been discarded, abandoned or disposed of.

Spatial planning: the integrated process of organising the biophysical space with the objective of using and transforming the territory according to its capacities, vocations, preservation of biological balance and geological stability, with a view to maintaining and enhancing its life-support capacity. It also refers to a public policy aimed at organising and defining land use to promote the sustainable economic, social and cultural development of the country.

Species: a group of living organisms linked by similar lines of descent and capable of interbreeding under natural conditions, producing fertile offspring, including subspecies, varieties and forms, as well as any part of the species capable of survival and reproduction.

Specimen: any live or dead animal or plant.

Strategic environmental assessment: a preventive environmental policy instrument, based on the analysis and forecasting of the potential impacts of policies, strategies and plans on the environment, with the objective of deciding on their environmental feasibility.

Subsistence agriculture: a form of agriculture in which crops or livestock are used almost exclusively for the sustenance of the farmer and his or her household, with any surplus, by its nature limited, used for sale or exchange.

Subsistence fishing: fishing carried out with or without a vessel, using basic artisanal means, constituting a secondary activity for those who practise it, primarily supplying food for personal consumption and possibly producing a small surplus of limited commercial significance.

Sustainable coastal and marine tourism: tourism activities carried out in coastal and marine environments under national sovereignty or jurisdiction, planned and managed so as to minimise negative impacts on ecosystems, culture and local communities, promoting nature conservation, the enhancement of natural and cultural heritage and the generation of equitable economic benefits for resident populations, in compliance with the State's obligations regarding the protection and preservation of the marine environment established under UNCLOS.

Sustainable development: development based on effective environmental and cultural management that meets the needs of the present generation without compromising environmental balance and the ability of future generations to meet their own needs.

Sustainable fishing: fishing activity conducted at levels of catch and effort that allow the long-term maintenance of marine living resource populations in a healthy and productive state, ensuring the conservation of marine habitats, the reduction of unwanted by-catch and ecosystem impacts, as well as the continuity of economic and social benefits for communities dependent on fishing, in accordance with the obligations of the coastal State and flag States under UNCLOS.

Sustainable forest management: the proper management of forest resources in an environmentally sound, socially beneficial and economically viable manner, for present and future generations.

Sustainable use: the balanced and effective use of environmental components capable of meeting the

needs of the present generation without compromising environmental balance and the ability of future generations to meet their own needs.

Sustainable watershed management: the process through which the management of forests, water and land is integrated to protect and enhance the quality of water, forests and other natural resources within river basins.

Tara Bandu: as defined in the Framework Law on the Environment, a custom forming part of the culture of Timor-Leste that regulates the relationship between human beings and their surrounding environment.

Territorial sea: the territorial sea of Timor-Leste. The outer limit of the territorial sea of Timor-Leste is defined by a line each point of which is situated at a distance of twelve nautical miles from the nearest point of the baseline.

Territorial waters: maritime waters situated between the baseline and a line 12 nautical miles distant from the baseline.

Threatened species: species facing an extremely high, very high or high risk of extinction in the wild and therefore classified respectively, for international purposes, as critically endangered, endangered or vulnerable.

Traditional knowledge: the accumulated knowledge, innovations, practices and technologies that are essential for the conservation and sustainable use of natural resources or that have socioeconomic value and which have been developed over time by communities or by persons residing in a given locality.

Transitional waters: bodies of surface water in the vicinity of river mouths, partially saline because of their proximity to coastal waters, but also significantly influenced by freshwater flows.

Urban land: land intended for urbanisation and construction, including land that is wholly or partially urbanised or built upon and land whose urbanisation can be programmed.

Urban system: the set of urban settlements and their respective areas of influence that ensure the provision of certain goods and services and establish hierarchical, dependent or complementary relationships among themselves.

Vulnerable groups: includes women, young people, persons with disabilities, displaced persons, ethnic and religious minorities, and persons living from subsistence agriculture and fisheries.

Waste: as defined under the legislation in force in Timor-Leste, any solid, liquid, gaseous or radioactive substance or material that causes alterations when discharged into the environment, resulting from activities of individuals or public or private institutions.

Waste management: all procedures aimed at ensuring environmentally safe, sustainable and rational management of waste, taking into account the need for its reduction, recycling and reuse, including the separation, collection, handling, transport, storage and/or disposal of waste as well as the subsequent protection and maintenance of disposal sites, in order to protect human health and the environment from any harmful effects that may arise therefrom.

Wastewater: water discharged from domestic, institutional or manufacturing sources, including laundry, bathing and latrine water.

Water resources: water available, or capable of being made available, for use in a given location, in sufficient quantity and quality, and over a period appropriate to an identifiable need. This definition covers water in its natural environment and excludes water within public supply systems.

Water resources management: the activity of planning, development, protection, distribution and management of the optimal use of water resources.

Wetlands: land in transition between terrestrial and aquatic systems where the water table is usually at or near the surface, or where the land is periodically covered by shallow water, which under normal circumstances supports or would support vegetation typically adapted to life in saturated soil.

Wildlife: species of plants and animals existing in natural ecosystems and habitats without human influence or with only limited influence in their existence and reproduction.

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