

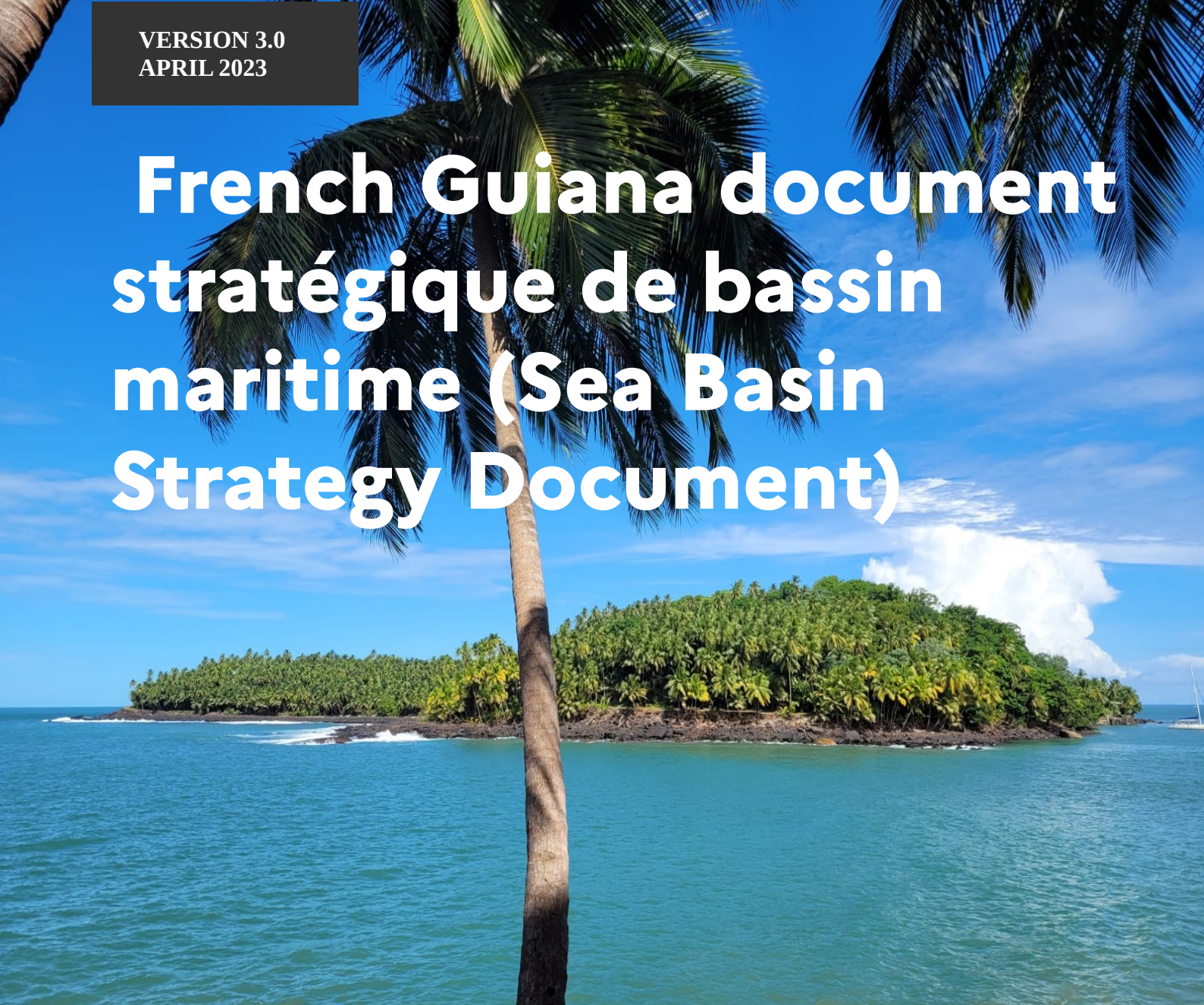


**PRÉFET  
DE LA RÉGION  
GUYANE**

*Liberté  
Égalité  
Fraternité*

**French Guiana overseas  
maritime council**

**VERSION 3.0  
APRIL 2023**



# **French Guiana document stratégique de bassin maritime (Sea Basin Strategy Document)**

**Summary – April 2023**

# Preamble: Drafting framework of the DSBM

## 1. Context

### 1. NATIONAL AND EUROPEAN FRAMEWORK OF MARITIME POLICY

France's maritime policy is coordinated, under the authority of the Prime Minister, by the General Secretariat for the Sea (SGMer), established by Decree No. 95-1232 of 22 November 1995.

The National Council for the Sea and Coasts (CNML), established in 2013, is involved in the development, implementation, monitoring and evaluation of the National Strategy for the Sea and Coasts (SNML). It is the reference document for the protection of the environment, the development of marine resources and the integrated and concerted management of sea- and coastal-related activities.

At the European level, in 2007, the European Commission adopted the "Integrated Maritime Policy for the EU" (IMP). This policy sets out the framework for sustainable economic development of the European Maritime Policy based on maritime spatial planning and integrated coastal zone management, marine knowledge and integrated maritime surveillance.

France has chosen to meet the transposition obligations of the following two European framework directives within the Strategic Coastline Documents (DSF), developed for French mainland coastlines. These two directives do not apply to overseas departments and territories, but they act as a framework for the implementation of integrated management of the sea and the coast:

- Directive 2008/56/EC of 17 June 2008 known as the Marine Strategy Framework Directive, which aims by 2020 to achieve or maintain good environmental status in the marine environment;
- Directive 2014/89/EU of 23 July 2014 known as the Maritime Spatial Planning Framework Directive, which establishes a framework for maritime planning and requires Member States to ensure coordination of different activities at sea.

### 2. APPLICATION PERIMETER

The implementation of French national strategy concerns maritime spaces under national sovereignty or jurisdiction, the overlying airspace, the seabed and the subsoil of the sea (Article L. 219-1 of the Environmental Code).

In terrestrial terms, the limit of the application of the DSBM (Sea Basin Strategy Document) has not been fixed. The terrestrial scope corresponds to activities located on the territory of coastal administrative regions which have an impact on maritime areas. The depth of the terrestrial perimeter varies according to the activity studied.

### 3. LEGAL SCOPE OF THE DOCUMENT

The enforceability of the Sea Basin Strategy Document is defined in Article L. 219-4 of the Environmental Code and by Ordinance No.2020-745 of 17 June 2020 on the rationalization of the hierarchy of standards applicable to urban planning documents. Plans, programs and schemes relating to activities exclusively located in maritime areas, the sea development scheme, the regional aquaculture development scheme and town planning documents must be compatible with the goals and provisions of the document. Other plans and programs, where they are likely to have significant effects on the sea, shall take into account the DSBM. Likewise, all projects relating to activities having a direct or indirect impact on the sea basin must be compatible with the orientations of the strategy document.



## Elaboration

### 1. FRENCH GUIANA OVERSEAS MARITIME COUNCIL

An overseas maritime council (CMU) is created for each basin. It is a governance body whose mission is to define a maritime strategy and to make recommendations on all matters relating to the sea and the coast at the regional level, including waters under French sovereignty or jurisdiction. It takes into account statutory specificities and issues specific to each territory making up the sea basin (Article R219-1-15 of the Environmental Code).

In French Guiana, the overseas maritime council was created by prefectural decree of 19 January 2015. Its composition was renewed by decree of 24 November 2020. It is chaired by the Prefect of French Guiana or their representative.

The CMU has 42 members, divided into six colleges:

- college of representatives of the State and its public institutions;
- college of representatives of territorial authorities and their groupings;
- college of businesses in the basin, whose activity is connected to the operation or direct use of the sea or the coast;
- of representatives of unions whose activities are directly linked to the operation or use of the sea or the coast;
- college of associations, foundations for the protection of the coastal or marine environment and users of the sea or the coast;
- college of qualified representative persons in particular from the scientific world.

The purpose of the CMU is to develop an integrated policy on the sea and coast in French Guiana. In particular, it is responsible for preparing the Sea Basin Strategy Document. To this end, the Environmental Code establishes a "Sea Basin Strategy Document" commission, consisting of the meeting of the college of representatives of the State and its public institutions and the college of representatives of local authorities and their groupings.

The secretariat of the Overseas Maritime Council of French Guiana is covered by the Directorate-General for Territories and the Sea (Directorate for the Sea, Coastline and Rivers).

### 2. CONTENT OF THE SEA BASIN STRATEGY DOCUMENT

The content of the Sea Basin Strategy Document (DSBM) is governed by Article R. 219-1-23 of the Environmental Code. It sets out, at the basin level, the orientations of the French national strategy for the sea and the coast, based on an inventory of socio-economic and environmental activities and issues.

The DSBM thereby includes a strategic component, defining the challenges for the basin and the socio-economic and environmental goals to be achieved, and an operational component, whose measures organize an integrated and sustainable management of the sea and the coast, as well as the monitoring mechanism allowing the evaluation of the action plan.

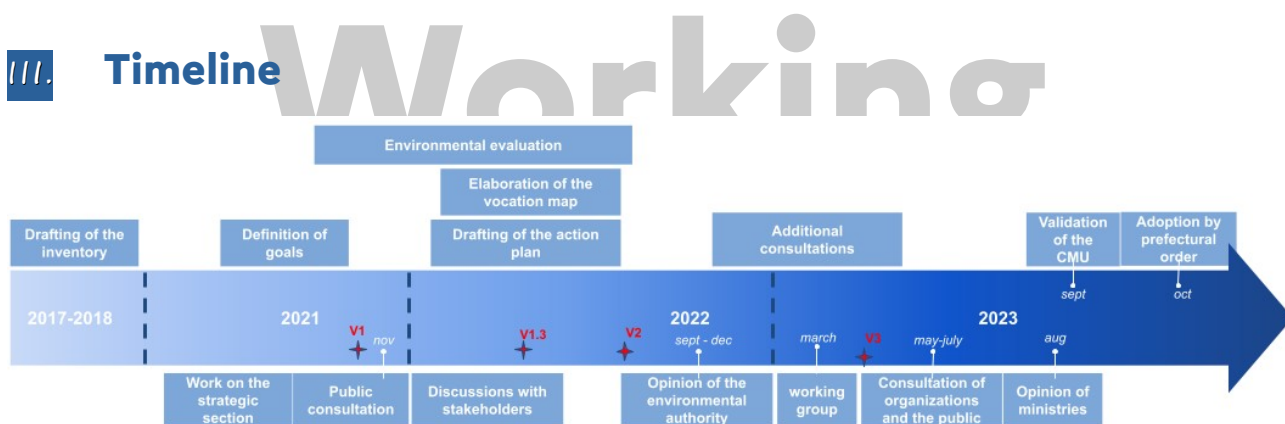
The DSBM is composed of three parts, accompanied by appendices:

Part 1. the existing situation, the issues and a vision for the future of the coastline desired in 2030; the complete report of the existing situation is provided in appendix 1.

Part 2. the definition of strategic economic, social and environmental goals and related indicators;

Part 3. operational implementation, through an action plan and the modalities for evaluating the implementation of the strategy document.





The drafting of the French Guiana Sea Basin Strategy Document was launched at the first plenary session of the Overseas Maritime Council (CMU) in April 2015. It began by outlining the existing situation within the scope of the basin. This study was produced by the Centre d'études et d'expertise sur les risques, l'environnement, la mobilité et l'aménagement (CEREMA) in 2018, and updated for the consultation in 2021.

The Overseas Maritime Council met in working seminars to discuss the challenges and goals to be adopted for the French Guiana basin by 2030. The working groups addressed the topics in a thematic way, then the proposals of each group were reorganized to be presented according to the first four themes of the national strategy mentioned in Article R. 219-1-1 of the Environment Code.

The strategic component of the DSBM was the subject of a public consultation held for one month in November 2021 and the goals were adapted accordingly. The goals were then translated into actions to implement the DSBM in operational terms.

The environmental assessment is an approach stemming from Directive 2001/42/EC of 27 June 2001 on the assessment of the effects of certain plans and programs on the environment. It is deployed throughout the drafting of the Sea Basin Strategy Document, in order to assess the foreseeable effects of this plan on the environment and to propose corrective measures.

The complete draft DSBM was validated in the plenary session of the CMU on 08/09/2022. The documents are submitted to institutional consultations and made available to the public, before their final adoption by the Overseas Maritime Council (CMU). The DSBM will then be validated by the Prefect.

# Part 1 : Existing situation

## 1. Current status and issues

### 1. GENERAL PRESENTATION OF THE FRENCH GUIANA SEA BASIN

The territory of French Guiana covers approximately 84,000 km<sup>2</sup>. French Guiana is one of the outermost regions of the European Union (OR). Community law applies there with adaptation measures.

The maritime limits off French Guiana are mapped by the SHOM. The sea basin of French Guiana extends to the limit of the exclusive economic zone, covering an area of 122,000 km<sup>2</sup>, and through to the extension of the continental shelf with regard to the exploitation of seabed and subsoil resources.

French Guiana has 13 coastal municipalities as defined by the Environmental Code (Article L.321-2). On 1 January 2019, the population of French Guiana was 283,540, 84% of whom reside in coastal municipalities.

French Guiana is a territory that has few man-made developments, and this specificity is found on the coast. Nearly three quarters of the coastal strip of French Guiana is covered by forest or semi-natural environments, with beaches, mangroves and marshes. However, artificialization is growing. Indeed, population growth goes hand in hand with urbanization, the development of road projects, the extension of agriculture and energy projects.

The administrative breakdown of French Guiana is closely linked to hydrographic units. Indeed, because of its position in the humid equatorial climatic zone, French Guiana has a particularly dense hydrographic network. Watersheds usually act as municipal boundaries. Cross-border hydro-systems are places of life, production and exchange conducive to the construction of a true cultural identity linked to the rivers. The geography of French Guiana therefore makes river and maritime issues inseparable.

Hydrography is a marker revealing the character of the coastline of French Guiana. There are two hydro-eco-regions:

- the Guiana Shield: a region with a dense hydrographic network in the equatorial forest, independent of tidal cycles and on a bed of highly eroded impermeable rocks,
- the coastal plain: an extremely heterogeneous coastline, with numerous wetlands and recent sediments.

French Guiana has a north-easterly facing coastline about 350 km long. It is part of a vast, muddy coastal plateau of 1,600 km stretching from the mouth of the Amazon River in the east to the mouth of the Orinoco River in the west.

The French Guiana coastline is subject to very active dynamics, characterized by the successive alternation of phases of sedimentation and erosion. Hydrodynamics and sedimentary dynamics are permanently reshaping the French Guiana coastal environment through the migration of mud banks, which act as a buffer zone between the marine environment and the shoreline.

### 2. FRENCH GUIANA IN THE REGIONAL SETTING

French Guiana is part of the geographical formation of the Guiana plateau, which extends from the Amazon to the Orinoco. At sea, the waters are impacted by the Amazon, whose sediments are transported by the north-Brazil current. French Guiana therefore shares a similar geographical context with its neighbours, the State of Amapa (Brazil) to the east and Suriname to the west.

Since French Guiana is an outermost region (OR) of the European Union (EU), it stands out from the other countries of the greater region, which are members of various organizations to which French Guiana is not – or not yet – integrated, such as CARICOM, the Caribbean Community, and MERCOSUR, the Southern Common Market. More locally, French Guiana maintains diplomatic exchanges with neighbouring countries through discussion bodies such as the cross-border joint

commission and river councils. Regarding the marine environment, France participates in the West-Central Atlantic Fishery Commission (WECAFC), which covers the entire Caribbean to the north-east coast of Brazil.

Suriname does not yet have a maritime planning document but has sectoral plans: fisheries management plan (2021-2025), national climate change adaptation plan (2019-2029), national biodiversity strategy and associated action plan (2006 strategy, revision in progress). In 2017, WWF Guianas, Green Heritage Fund Suriname, the French Guiana Protected Areas Commission (PAC) and the Nature Conservation Division (NCD) of the Forestry Department of Suriname spearheaded an EU-funded project to improve governance and protection of marine and coastal resources in French Guiana and Suriname, through a participatory approach.

In Brazil, the Interministerial Commission for Marine Resources (CIRM) coordinates actions related to the national marine resources policy, for which it develops multi-annual programs, including the Sectoral Plan for Marine Resources (PSRM), the National Coastal Management Plan (PNGC) and the Continental Shelf Survey Plan (LEPLAC). "Blue Amazon" maritime planning must respond to the global challenges of conservation and sustainable use of oceans, seas and marine resources for sustainable development (SDG14).

### **3. ILLEGAL FOREIGN FISHING: A MAJOR ISSUE**

Illegal fishing is carried out by vessels from Suriname, Brazil, Guyana, or illegals i.e. without flag, which fish in the French EEZ without permission. This practice has been identified for more than 30 years, with multiple causes, causing significant environmental and economic damage to French Guiana.

The fight against illegal fishing is the priority of the administrations contributing to the Action of the State at sea and represents more than 80% of notices of violation drawn up. These efforts make it possible to contain illegal fishing, which, however, remains at a high level.

New strategic directions are being investigated in order to improve the effectiveness of the system, on the operability of nautical resources, the strengthening of detection and identification means, the territorial network, the appropriation of the EEZ by shipowners and ships based in French Guiana, and at the diplomatic level.

In addition, at the World Ocean Summit on 11 February 2022, the President of the Republic announced France's commitment to ramp up the fight against illegal, unreported and unregulated (IUU) fishing. The Secretary General of the Sea (SGMER) is mandated to coordinate the development of a comprehensive strategy to combat IUU fishing. In this context, an interministerial working group specific to French Guiana has been set up to identify the levers for action to reduce IUU fishing over four years.

### **4. THE PROTECTION OF ENVIRONMENTS, RESOURCES, BIOLOGICAL AND ECOLOGICAL BALANCES AS WELL AS THE PRESERVATION OF SITES, LANDSCAPES AND HERITAGE**

#### ***Marine and coastal habitats and species***

**At sea, habitats are mainly composed of soft substrates** (mud, fine sand, sand, coarse sand), a very small surface of hard substrates consisting of bedrock (rocky seabeds and around the islands) and ancient limestone reefs further offshore. The rocky habitats of French Guiana are the only ones on the Guiana plateau between the Orinoco and the Amazon. They remain particularly poorly known, especially in terms of the species that develop there and the threats jeopardizing them.

**Near the coast, the diversity of habitats and species is unique** because of the situation of the coast of French Guiana in the plume of turbid and fresh water discharged by the Amazon River, forming an ecological continuum up to its estuary. The offshore ecosystem is home to a relatively high diversity of cetaceans, all protected at the national level. The benthic fauna is rich, but difficult to identify. Other ecosystems are to be considered, such as the Amazon reef, explored in 2017 and 2019, which is remarkably and specifically rich.

**The coastal fringe is mainly occupied by wetlands**, largely dominated by marshes and mangroves, unique ecosystems whose interactions are still too little known, with effects on uses, fishery

resources and land management. The ecological functioning of the mangrove, and its role in carbon storage (significantly greater than the forest) are also poorly known. French Guiana is home to 70% of French mangroves. Estuaries are special environments at the interface between the marine and river environment.

**Coastal environments have a rich biodiversity.** They are home to many species, sometimes endemic. Mudflats, lagoons and marshes are favourite stopping points for many species of migratory birds, originating from both the North American and the South American continent. The beaches of French Guiana are among the most important sites in the world for sea turtle egg laying. The wetlands are exceptional for wildlife: presence of manatees, giant otters, caimans, rich bird life, etc. The hydrological functioning of these wetlands is however poorly known. Experiments are also under way to define French Guiana's wetlands, based on soil and vegetation criteria.

**Protected marine areas** in the French Guiana Sea Basin cover 0.61% of the area of waters under French jurisdiction. They include 3 national nature reserves with a marine area, 3 wetlands of international importance (Ramsar), 3 specially protected areas covered by the Cartagena Convention, and sites of the Coastal Conservatory, which overlap:

- in the west, the site of the Lower Mana (RAMSAR zone), with the Amana Nature Reserve (also a Cartagena Convention site);
- in Sinnamary, the formation consisting of the estuary of the Sinnamary River, the Yiyi Pripri and the Anse Trail (RAMSAR site and estate of the Conservatoire du littoral);
- in the east, the marshes of Kaw-Roura and Grand Connétable island (two nature reserves that are also Cartagena Convention sites, RAMSAR zone. Since 2020, the Nature Reserve of Grand-Connétable island has also been registered on the IUCN green list).

### **Pressure on ecosystems**

The coastline of French Guiana concentrates the vast majority of the population and therefore anthropogenic activities, generating degradation and pollution (wastewater treatment, industrial activities, agricultural, pollution related to transport, soil sealing, etc.).

According to the inventory of the French Guiana basin, 57% of coastal water bodies have a very good ecological status and 34% are in good condition; 70% are in a good chemical state.

**Plastic waste** produced by human activities from land-based sources, as well as nets and fishing gear lost or abandoned at sea, have a significant impact on marine ecosystems and organisms. They are some of the major threats to French Guiana's marine biodiversity.

**Marine pollution by boats** is listed by the centre régional opérationnel de surveillance et de sauvetage Antilles-Guyane (CROSS - Regional Operational Centre for Surveillance and Rescue). Very few cases are recorded for the French Guiana area.

### **Sites, landscape and heritage**

**The landscape**, ranging from remarkable to more ordinary areas, contributes to the quality of life of the populations. It is also an attractiveness factor and a decisive element in the spatial planning process. Several tools and approaches are set up, both to improve knowledge of landscapes and to set landscape quality goals. In this way, French Guiana acquired an atlas of landscapes in 2009, notably enhanced by a photographic landscape observatory.

The coastline consists of several landscape entities: the mountains and marshes of eastern French Guiana – coastal mosaics alternating open and closed environments, parallel to the coastline – the spatial plain of Kourou – Cayenne island, naturally combining almost all the characteristics of the landscapes of French Guiana – the rice fields of Mana – the islands and islets, constituting landscapes in their own right and which mirror the ocean with wooded mountains that dot the coastline.

These spaces also have a **unique historical and architectural heritage**, linked to different eras: Amerindian vestiges, pre-Columbian engraved rocks, ruins of colonial dwellings, ruins of the penal colony, industrial heritage, etc.

In terms of **site policy**, these are mainly located on the coast. French Guiana has two classified sites, one of which is in the coastal zone (Vidal-Mondelice site, classified in 2016), and 14 registered sites, 10 of which are on the coast (islands and islets included), covering an area of nearly 3,000 hectares.

## 5. RISK PREVENTION AND COASTLINE MANAGEMENT

### **Natural risks**

The hydro-sedimentary context subjects the coastline to **major erosion-accretion phenomena** under the influence of the successive passage of mud banks resulting from the sedimentary discharge of the Amazon River into the Atlantic Ocean. Changes in the coastline can reach up to 6 km in 50 years in some sectors with annual variations between 100 and 300 m per year. The municipalities of Kourou, Awala-Yalimapo and Cayenne Island are particularly affected by erosion phenomena. **Coastal Risk Prevention Plans (PPRL)** are established in these municipalities to regulate urbanization and activities in risk areas. **An observatory of coastal dynamics (ODyC)** is dedicated to the acquisition, capitalization, understanding and enhancement of data on coastal dynamics on the entire coast of French Guiana.

### **Climate Change**

The forecasts of the Intergovernmental Panel on Climate Change (IPCC) have been itemized at the Guiana level (GuyaClimat study). The forecasts are based on two scenarios (median scenario and pessimistic scenario) that describe future climate change. They forecast, among other things, a sea level rise of 24 to 28 cm by 2050 and 54 to 84 cm by 2100 and an increase in the areas impacted by chronic submersion.

These changes will have **consequences on the one hand for coastal risks** (increase in the intensity of coastal erosion and marine submersion hazards and impacts on the speed of mud banks and the cyclical nature of erosion-accretion phenomena), and on the other hand for fishery resources (changes in fish habitat, and therefore in their growth, reproduction and metabolism).

### **Technological risks**

Technological risks are particularly concentrated in the French Guiana sea basin, in the municipalities of Kourou and Cayenne, with regard to space launcher activity. SARA oil depots and the transport of dangerous goods (TDG), whether by road, inland waterway, sea or pipeline, are also among the industrial risks.

On the coast of French Guiana, there are 104 classified installations for the protection of the environment (ICPE), including 4 Seveso low threshold classified facilities and 18 Seveso high threshold classified facilities.

### **Health risks**

Health risks on the coast are mainly related to the quality of bathing water which is **generally insufficient on sites checked by the ARS**.

For several years now, a phenomenon involving the **massive stranding of sargassum seaweed** has been observed in the Caribbean arc and to a lesser extent in French Guiana. The massive accumulation of this seaweed on beaches can cause health risks for humans and domestic animals by the production of hydrogen sulphide as it deteriorates. Sargassum seaweed also has a negative impact on fishing activity by clogging nets and prevents sea turtles from laying.

### **Maritime security**

In French Guiana, responsibility for maritime security lies with the Prefect, **representing the Government for State Action at sea (DDG AEM)**, supported in this role by the **Maritime Zone Commander**. The DDG AEM has access to the maritime ORSEC system, which determines the general organization of sea rescue and intervention in the French maritime area of responsibility and defines the methods for directing operations in the fight against marine pollution, search and rescue at sea and assistance to ships in distress.

The inspector of **the ship safety centre (CSN)** mainly manages ships operating in French Guiana. They also inspect foreign ships calling in on local ports to ensure that they conform with the requirements of international codes.

**Maritime security is provided by the** Centre régional opérationnel de surveillance et de sauvetage en mer Antilles-Guyane (Regional Operational Centre for Surveillance and Rescue). It can implement and coordinate the appropriate rescue units, using all the resources available in the area,



whether private or State-controlled. CROSS Antilles-Guyane also has a mission to supervise commercial shipping, the maritime assistance service and the distribution of local weather reports.

Professional fishing is an important part of assistance and rescue operations due to the popularity of this activity in the waters of French Guiana.

## **6. SUSTAINABLE DEVELOPMENT OF ECONOMIC, MARITIME AND COASTAL ACTIVITIES AND PROMOTION OF MINERAL, BIOLOGICAL AND ENERGY RESOURCES**

### ***Fishing and aquaculture***

In 2019, French Guiana had **372 fishermen, 85% of whom were foreign nationals**. Three main fleets are present: an industrial fleet of freezer shrimp trawlers (13 vessels), a fleet of Community-licensed Venezuelan trollers (45 trollers) and an artisanal fleet of boats under 12 m (113 boats using mainly fish nets).

The fisheries sector is the **third largest production and export** sector behind the space sector and the mining industry, thus occupying a major place in the economy of French Guiana.

While shrimp and snapper fishing are linked to Cayenne Island (port of Larivot), coastal fishing is practised throughout the coast of French Guiana and ten landing points can be found from west to east. Operating ports **do not have appropriate unloading infrastructure** despite the release of European and state funds for this purpose (absence of weighing points, ice-making machines, etc.). Outside Cayenne Island, ice-making machines have recently been installed in Sinnamary and St. George.

The main selling point for fish landed in French Guiana is the MIR (market of regional interest) of Cayenne. A **fish market** was created as an annex to the MIR. The **processing** of seafood in French Guiana is still predominantly artisanal.

The **aquaculture** sector remains embryonic (freshwater aquaculture).

There is **no vocational maritime training in French Guiana**. However, there is a real need for maritime vocational training in the fishery, transport, trade and recreational sailing sectors.

Although the area is relatively well known to sports fishing enthusiasts worldwide, **recreational fishing** or sport fishing is not well structured in French Guiana. **Livelihood fishing** is also practised by different communities. These practices are currently poorly documented. Fishing from the shore is practised mainly from the beaches of Kourou, Cayenne and Rémire-Montjoly. On-board fishing is concentrated in three sites at sea: the Îlets de Rémire, the Connétable flats where catches are highest and the Salvation Islands. Fishing from bridges and pontoons is very common in French Guiana.

**Fishery resources** in French Guiana do not seem to be threatened, but the risk of over-fishing remains through lack of knowledge. Environmental variations due to climate change are impacting fishery resources, which are also under heavy pressure from foreign illegal fishing.

**Illegal fishing is a major issue** in Guiana. Cross-border areas are subject to incursions by foreign vessels coming to fish without authorization in French waters, with fishing gear that does not comply with applicable standards. The last study evaluating foreign illegal fishing dates back to 2012. It estimated, according to several hypotheses, that illegal production is 1.4 to 3 times higher than legal fishing.

### ***Recreational boating activities***

Recreational boating is poorly developed and is concentrated around three ports in Rémire-Montjoly (which is destined to be relocated to Roura), Kourou, Saint-Laurent du Maroni and the Salvation Islands. In 2020, 2,908 recreational craft were registered in French Guiana, including 150 yachts and 2,541 motorboats.

The main tourism and boating activities are located on the Cayenne peninsula and in Kourou, as well as in the islands (sailing, powerboating, surfing sports, kayaking and canoeing, scuba diving, etc.).

### ***Commercial ports, cruises and maritime networks***

French Guiana has three commercial ports. The ports of Dégrad des Cannes (DDC) in Rémire-Montjoly and Pariacabo in Kourou, are managed since 2013 by the Grand Port Maritime de la Guyane (GPMG). The Pariacabo facilities are mainly used for the needs of the Guiana Space Centre (CSG) and the Société Anonyme de la Raffinerie des Antilles (SARA). The port of DDC is the main

commercial port of French Guiana. 95% of the products imported for local consumption pass through it. Management of the Port de l'Ouest was devolved in 2009 to the intermunicipal authority of western French Guiana. The activities of the port of Saint-Laurent du Maroni are focused on river and inland navigation for the traditional canoe (pirogue) port and the hold hosting the international ferry, and towards the sea for the commercial wharf through which approximately 25,000 T of goods transit each year. The maritime service is provided by several regular lines, which transport containerized goods, vehicles, solid or liquid bulk from Europe, the French Antilles and Port of Spain (Trinidad and Tobago), and Haiti from the Port de l'Ouest.

The port site of Dégrad des Cannes welcomes one to two cruise ships per year. The Salvation Islands welcomed 15 stopovers in 2019. The project to develop a cruise service at the Port de Ouest is dependent on the dredging program.

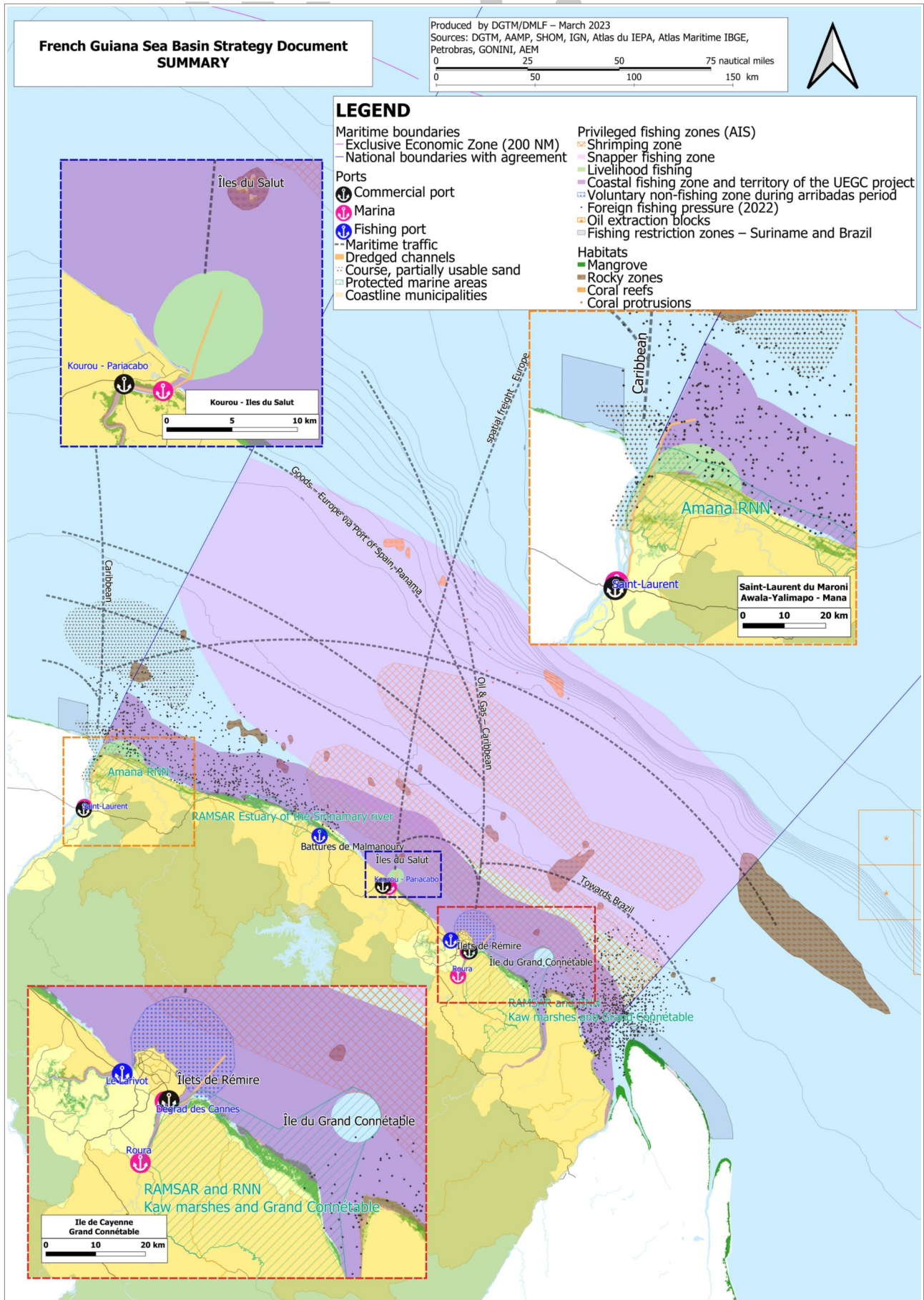
Equipment for the maintenance, refitting and repair of ships is absent in French Guiana or dysfunctional (a single refitting area at the port of Larivot). There is no structured waste treatment system for ships, including oil recovery and antifouling. Finally, there is no vocational seafaring training (seafarers, handling, repair, etc.), and training is not adapted to foreign workers.

### **Mineral resources**

In French Guiana, sand is becoming a scarce resource due to the difficulty of accessing new deposits, the environmental constraints weighing on the resource and rising demand. Human development creates pressure on the resource, due to the large volumes of sand and aggregates that it needs, and strongly impacts ecologically sensitive terrestrial habitats, such as forests on white sand, on which there is a biotope protection order (PDB). The use of sea sand could therefore be considered in the medium or long term to supplement or replace the production of land-based quarries on the coast. Two areas have been identified in the Maroni estuary where the sand resource could potentially be exploited. Further studies are needed to clarify the potential for exploitation further offshore, as well as the impacts and the restoration of stocks (inputs by rivers, etc.).

### **Marine renewable energy (MRE)**

The potential in MRE is currently little known, regardless of the technology used (tidal, river, wave, thermal, osmotic, wind or solar). Operating outlooks need to be honed and factor in detrimental environmental factors (depending on the technology used; the use of marine currents could be interesting). It is necessary to achieve a critical size to be economically acceptable. The impacts on the environment can be significant, for example the impact of wind turbines on sea birds. The 2020 ADEME report *Vers l'autonomie énergétique en zone non interconnectée en Guyane* (Towards energy autonomy in a non-interconnected zone in French Guiana) describes development hypotheses for the offshore wind and tidal power sectors in the context of an optimistic scenario, between now and 2030, but does not take into account the feasibility of projects.





## II. Desired future for the basin

*The existing situation of the Guiana basin has revealed ecological and socio-economic issues that are of interest to all maritime sectors. On this basis, stakeholders of the overseas maritime council have expressed their hopes for the basin's situation by 2030.*

In 2030, basin stakeholders will work in an optimized way thanks to the coordination of a one-stop shop; interlocutors and their responsibilities will be well identified, information will be shared between all and the results of studies conducted in the territory will be published. The stakeholders will use local experts, who know the territory well, for any study mission or to develop projects. The existing bibliography will be used and access to data already produced will benefit the territory and economic stakeholders. This will simplify the implementation of projects. It will allow better understanding and integration of environmental issues, and better acceptance of the constraints to be respected to ensure the good state of the marine environment and its iconic species. Future generations will understand the meaning and culture of the sea, they will want to preserve it in order to be able to make a living from it.

In 2030, stronger and coordinated controls with neighbouring states will help curb illegal fishing, which threatens French Guiana's fishing industry and the proper management of fishery resources. The fishing industry will be managed in cooperation with the northern states of Brazil, Suriname and Guyana, which share the same fish stocks. This is a necessity for a balance between fleets and resources. The future for fishing will be based on the renewal of the fleet, the establishment of suitable equipment and a producer organization that will effectively support the economic development of the sector, while respecting the environment and biological balances. In 2030, the sector will have become attractive thanks to implemented and sustained training. Markets will be diversified, and processed products will be developed both locally and on the export market.

In 2030, collaborations will be developed within the Guiana plateau, particularly on the subject of biodiversity and protected areas. Interregional trade will increase in all areas, and obstacles will be lifted to ensure regional and local port connectivity, in a spirit of intermodality with land-based trade.

The increase in maritime activities will be global and involve the docking of larger ships: more than 190 m. The multi-purpose offshore platform (MpOP), included in the strategic project of the Grand Port Maritime de Guyane (GPMG), will constitute an international modal node. Its implementation is being studied, in compliance with environmental, economic and social constraints. Installed offshore, the GPMG will eventually have a greater draft. The aim will be to maintain direct lines and create cabotage lines, as well as a service to the various Guiana basins. To improve productivity and speed up the transit of goods, gantries that process containers will have to replace cranes. To summarize, the future of the port is based on the modernization of infrastructure and the ability to see long-term potential for the MpOP.

With regard to recreational boating, the future will see the reappropriation of the coastline. In 2030, disembarkation/embarkation equipment will be freed of any illegal presence thanks to the strengthening of controls and will allow maritime access to tourist sites. New infrastructure dedicated to recreational boating is envisaged. The heritage present will be enhanced, thanks to tools such as the "heritage lottery".

In terms of coastal risk management and maritime safety, widely deployed communications will allow for the appropriation of natural phenomena and response procedures by all citizens and sea users by 2030. Stakeholders in the territory will have adapted to phenomena of erosion and the population will be, at least partially, relocated.

Marine aggregates resources and marine renewable energy potential will be well identified, and the modalities of their extraction, while respecting the environment, will be known. Projects will be entering the operational phase.



## Part 2: Strategic goals and planning of maritime spaces

### 1. Strategic environmental and socio-economic goals

The strategic goals must make it possible to move towards the vision of the desired future for the basin as defined above. They are set at 6 years, corresponding to the DSBM time scale.

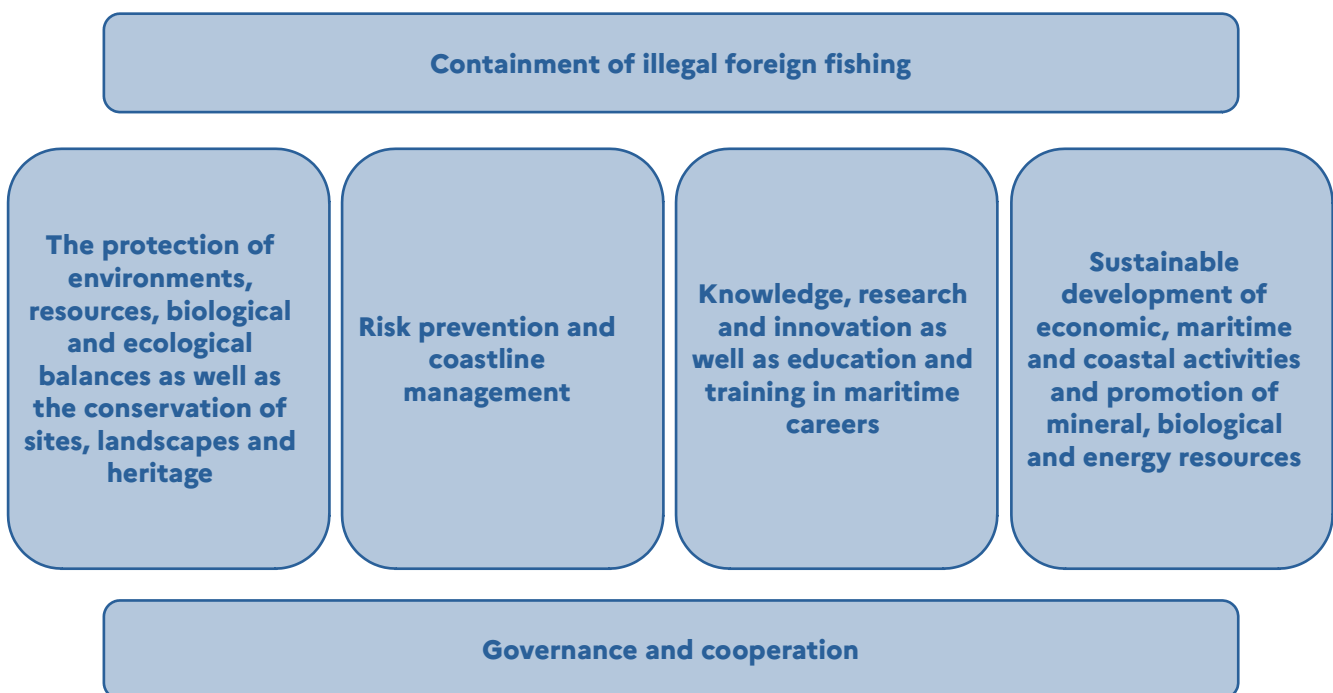
These goals include environmental goals, related to the preservation of marine habitats and marine species as well as the reduction of pressure, socio-economic goals, which aim to boost the maritime economy, as well as cross-cutting goals, related to governance and cooperation.

They deal with the first four themes of the national strategy mentioned by the Environmental Code:

- "The protection of environments, resources, biological and ecological balances as well as the conservation of sites, landscapes and heritage";
- "risk prevention and coastline management";
- "knowledge, research and innovation as well as education and training in marine careers";
- "sustainable development of economic, maritime and coastal activities and promotion of mineral, biological and energy resources".

The containment of foreign illegal fishing is a key factor in achieving these environmental and economic goals.

The goals are thus organized around 6 areas to be carried out simultaneously:



<b>Area I</b> <b>Containment of illegal foreign fishing</b>	Priority 1	I.1. Enhancing the effectiveness of controls on illegal fishing
	Priority 1	I.2. Improving post-diversion capabilities
<b>Area II</b> <b>The protection of environments, resources, biological and ecological balances as well as the conservation of sites, landscapes and heritage</b>	Priority 2	II.1. Preserving biodiversity and the functioning of marine and coastal ecosystems
	Priority 2	II-2. Preserving fishery resources, to allow sustainable development of fisheries, respectful of biological balances
	Priority 3	II.3 Reducing pressure on the environment from human activities and developments
	Priority 3	II.4 Reducing the input and presence of waste in marine waters
		II.5 Preserving and enhancing sites, landscapes and heritage
<b>Area III</b> <b>Risk prevention and coastline management</b>	Priority 2	III.1. Implementing integrated management of the coastline and the land-sea interface with regard to coastal hazards
		2 . Strengthening of maritime safety
	Priority 3	III.3 Improving the quality of bathing water
		III.4 Preparing for marine pollution risks
<b>Area IV</b> <b>Knowledge, research and innovation as well as education and training in maritime careers</b>	Priority 2	IV.1. Strengthening capacity for knowledge acquisition and sharing
	Priority 2	IV.2. Developing the attractiveness and qualification of jobs in the blue economy
<b>Area V</b> <b>Sustainable development of economic, maritime and coastal activities and promotion of mineral, biological and energy resources</b>	Priority 2	V.1. Supporting sustainable and competitive professional maritime fisheries
		V.2 Improving knowledge and management of unprofessional fishing practices
	Priority 3	V.3 Establishing and managing port facilities that meet the needs of fishing professionals
	Priority 2	V.4. Strengthening the economic fabric around fishing, boating and port activities
	Priority 3	V.5 Ensuring sustainable and competitive development of commercial ports
		V.6 Developing and managing the coastline to support the development of recreational and leisure activities in a safe and balanced way
	Priority 3	V.7 Deepening knowledge on the potential and conditions of use of non-living marine resources to anticipate their development
<b>Area VI</b> <b>Governance and cooperation</b>	Priority 3	VI.1 Optimizing actions and streamlining relations between maritime stakeholders
	Priority 2	VI.2. Strengthening maritime cooperation with neighbouring States

All the goals are itemized in the draft DSBM, accompanied by identified actions enabling their implementation. Other actions may be subsequently defined (annual update of the action plan). The details of the action sheets are available in appendix 3.



## Vocations map

### 1. PURPOSE OF THE VOCATIONS MAP

Some of the strategic goals defined above can be distributed geographically on the coastline, or even associated with identified territories. The mapping of vocations gives an objective vision of the distribution of all strategic goals between territories and promotes the definition of strategic priorities (vocations) for identified sectors.

### 2. METHOD

The methodology is as follows:

- Identify goals with a spatial dimension, in particular those whose location remains to be defined
- Map out socio-economic and ecological issues, both based on the existing situation
- Evaluate the impacts between strategic goals, possible conflicts of use or impact on the environment, to pinpoint areas under stress
- For locations to be defined, identify possible options with their pros and cons
- Establish the final vocations map, in consultation with local stakeholders

This intermediate work is presented in the completed document.

### 3. DESCRIPTION OF VOCATIONS PER ZONE

#### **1- Western coastal zone and Maroni estuary**

The aim is to establish a basin of human development based on adequate port and industrial infrastructure, the protection and development of a set of remarkable ecosystems, including coastal fishing and traditional subsistence fishing, tourism and recreation.

Particular attention should be paid to this border area, given the permanent presence of illegal foreign fishermen in French Guiana's waters, which have a significant impact on the fishery resource and protected marine species. The fight against illegal fishing is crucial for the strict management of fishery resources.

Adapting coastal development to the evolution of the coastline is necessary. Sand extraction is possible in the identified potential offshore area, avoiding impacts on fishing and the marine environment, in particular marine turtles.

#### **2- Central-western coastal zone**

The focus here is on the protection of coastal ecosystems and the sustainable management of coastal fisheries. The interest value of a protected marine area status adapted to the pursuit of these two goals and based on local governance must be examined. A protection zone may be envisaged on the parts offering specific ecological functions, in particular for fishery resources: marine connections with coastal marshes, flats. The fight against illegal fishing is crucial.

#### **3- Kourou and the Salvation Islands**

This area represents an economic and urban hub destined to develop its infrastructure (port, industry, fishing, recreational boating), reduce its impact on the environment and improve the resilience of the territory to the dynamics of the coastline.

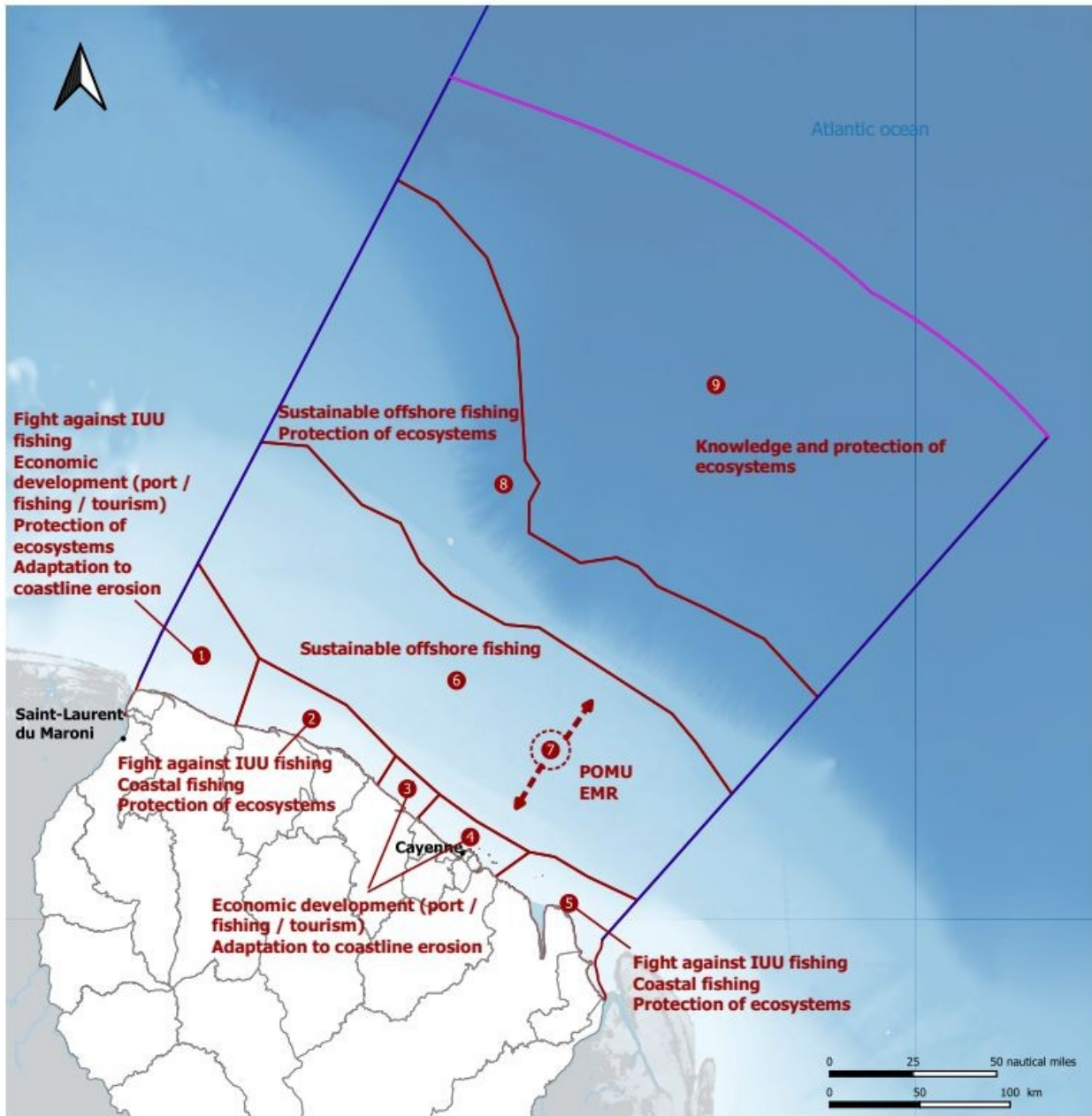
#### **4- Central-eastern coastal zone**

The central-eastern coastal zone concentrates economic and urban interests. It aims to develop its infrastructure (port, industry, fishing, recreational boating), reduce its impact on the environment and improve the resilience of the coastline.

#### **5- Eastern coastal zone and Oyapock estuary**

It is a natural complex of international importance. The issues are focused on nature protection, coastal and subsistence fishing and nature tourism. The fight against illegal fishing is crucial. A protection area based on local governance can be envisaged.

### Vocations map of the French Guiana sea basin



- 1 Western coastal zone and Maroni estuary
- 2 Central-western coastal zone
- 3 Kourou and Salvation Islands
- 4 Central-eastern coastal zone
- 5 Eastern coastal zone and Oyapock estuary
- 6 Close continental shelf
- 7 Zone conducive to the development of industrial facilities
- 8 Rim and drop of the continental shelf
- 9 Abyssal plain

- Exclusive economic zone (EEZ)
- Boundary with agreement
- Municipalities
- Vocation zones

Produced by DGTM Guyane / DMLF, April 2023  
 Sources : SHOM, © IGN - BD TOPO@2019, BD Cathage@2015, GEBCO Compilation Group (2020)  
 GEBCO 2020 Grid



Particular attention should be paid to this border area, given the permanent presence of illegal foreign fishermen in French Guiana's waters, which have a significant impact on the fishery resource and protected marine species.

#### **6- Close continental shelf**

Sustainable offshore and shrimp fishing activities can be developed there. The definition of fishery conservation areas is to be studied to ensure the sustainability of the resource.

#### **7- Zone conducive to the development of industrial facilities (MpOP, MRE)**

A space for the installation of a multi-purpose offshore platform (MpOP) and tests on the production of marine renewable energies need to be defined within zone 6 of sustainable offshore and shrimp fishing. The constraints of depth and distance from the coast for the MpOP, and the meteorological and oceanic characteristics (wind, current, etc.) for MRE, position it primarily in the pre-identified sub-area 7 on the map. Studies are needed to clarify this location, and to avoid or reduce impacts on the marine environment and activities (fishing, military manoeuvre area).

#### **8- Rim and drop of the continental shelf**

This zone is destined to be a protected area for eco-friendly offshore fishing. Classification as a protected marine area must be studied to reinforce these two goals through governance and appropriate means. The location of the protection zone is to be specified taking into account the development issues of offshore fishing. Environmental issues (productivity, Amazonian reef, marine mammals, etc.) must lead to classifying a significant part of the zone as a high protection area.

#### **9- Abyssal plain**

The focus in this area will be the development of knowledge and environmental protection.

### III. Follow-up mechanism

In accordance with the recommendations of the CNML, the goals presented above are monitored by pre-established indicators.

The indicators are regularly gauged by the CMU secretariat through a monitoring sheet allowing reporting to local and national authorities. These indicators may be revised three years after the entry into force of the strategy document, in order to adapt to the context.

Indicators of the goals identified as priorities will be monitored annually and reinforced, identifying bottlenecks.

## Part 3: Operational implementation

### I. General considerations

An action plan has been defined to strengthen the operational implementation of the DSBM.

The pilot is responsible for the completion of the action, ensuring the coordination of other stakeholders and levers to be implemented (regulatory, financial, governance, etc.) For the implementation of the measure, it can rely on other stakeholders who will play the role of project owner.

The actions are defined to be implemented essentially over the duration of the DSBM. Also, the following time frames are considered:

- short term: 3 years (1/2 period of the DSBM),
- medium term: 6 years (length of the DSBM),
- long term: beyond the DSBM.

These deadlines make it possible to define the actions to be carried out as a priority.

### II. Evaluation and updating methods

In addition to the indicators assessing the achievement of DSBM goals, the progress of the action plan will be regularly reviewed. The results will be presented annually to the CMU.

Delays and difficulties will be noted. On this occasion, the actions may be updated, clarified or reoriented, if their implementation deviates from the initial goals or requires non-mobilizable means. Additional actions can be defined.

### III. Action Plan

The DSBM action plan is the operational implementation of the strategic goals. It comprises 89 actions, identified with a view to achieving the goals set out in the DSBM.

Each action is presented in the form of a sheet comprising:

- the description of the action,
- the goals to which this action responds,
- the stakeholders involved in the implementation of the action,
- spatial location,
- the deadlines for implementation and the duration of the action,
- the approximate cost of the action and the funds mobilized or mobilizable for its implementation,
- the environmental impacts of this action and the measures of the "Avoid, Reduce, Offset" (ARO) sequence to be put in place if necessary.

The details of the action sheets are available in appendix 3.

## Actions identified:

No	Title of the action
1	Optimize the use of resources, by strengthening the coordination of resources and targeting
2	Strengthen post-diversion capabilities
3	Conduct knowledge acquisition studies on environments and species
3a	Increased knowledge of offshore marine mammals
3b	Study of rays and sharks
3c	Study of estuaries
4	Finalize the regulatory definition of wetlands
5	Facilitate a consultation on the definition of protected new areas
6	Contribute to the implementation of PNAs
7	Supervise the activities of recreational fishing and boating guides
8	Take collective action against ghost nets
9	Conduct studies to improve knowledge of commercial species and monitoring of fishery resources
10	Reinstate tracking of landings in the west
11	Improve the filling in of fishing records and logbooks
12	Assess the Impact of foreign illegal fishing on fish stocks
13	Establish a fisheries observatory in French Guiana
14	Take into account and implement the actions that will be defined by the consultation on giant grouper (LIFE BIODIV'OM project)
15	Identify and map fishery functionality areas to protect high-issue areas
16	Adopt measures to improve the assessment and management of red snapper stock
17	Set up bycatch reduction measures
18	Mobilize financial resources and management structures to provide protected sites with the necessary resources for their management
19	Implement avoid-reduce-offset (ARO) measures
20	Roll out Net Zero Artificialization (NZA) targets in local planning documents
21	Improve careening practices
22	Encourage the reduction of land-based waste inputs and continue awareness-raising actions on coastal territories
23	Equip rainwater systems with waste interception devices
24	Create a sector to recycle nets resulting from repossession of illegal fishing gear
25	Structure the sector for the collection, treatment and recovery of used fishing gear, waste and oils from boats
26	Follow the actions provided for in the planning documents dealing with waste (SDAGE, PRPGD, PGRI) relevant to the marine environment
27	Develop and enhance the coastal path

28	Develop the sites to host nautical and tourist leisure activities respectful of natural and heritage areas
28a	Development of Îlet la Mère
28b	Development and reduction of problems on the Salvation Islands
28c	Enhance the Montagne d'Argent site
29	Develop the beaches of Kourou and Cayenne island
29a	Develop Cocoteraie beach
29b	Develop the beaches of Rémire-Montjoly
30	Encourage the long-term development of the coastal dynamics observatory
30a	Produce data
30b	Disseminate data
31	Develop and implement coastal management strategies
31a	Implement the Kourou coastal management strategy defined in 2019
31b	Develop a coastal management strategy in Awala-Yalimapo based on BRGM recommendations
31c	Develop a coastal management strategy in Rémire-Montjoly
32	Monitor the management solutions set up in response to coastal dynamics
33	Set up a launching ramp for the intervention on Cayenne island
34	Setting up a SNSM station on Cayenne Island
35	Implement beach management plans to organize coastal uses
36	Carry out an information campaign
37	Conduct an expertise on the safety of navigation
38	Implement the national hydrography program
39	Reinforce information aimed at citizens to improve bathing water quality
40	Implement SDAGE / bathing water actions
41	Plan methods of intervention targeting marine fauna
42	Investigate the response of the microbial and bacterial environment to oil dispersion
43	Optimize local analysis resources
44	Use of the Maroni estuary
45	Continue the development of the OBSenMER GUIANA platform
46	Conduct communication actions
47	Establishment of a maritime vocational training institution
48	Develop initial and continuous training offers, in the short and long term
49	Support the official recognition of fishermen
50	Improve working conditions on board fishing vessels
51	Develop partnerships between sailing clubs and stakeholders in education and training

52	Support and promote marine education area programs
53	Promote training in maritime professions and professional integration
54	Ensure the renewal of the fishing fleet
55	Ensure the implementation of the economic measures of the fisheries plan
56	Experimentation for offshore line fishing
57	Develop aquaculture
58	Structure a sustainable swim bladder sector
59	Conduct market research on white fish to consolidate and develop marketing channels
60	Enhance the value of fishery products from French Guiana
61	Conduct a study on non-professional fishing
62	Carry out the "Giant grouper, Atlantic tarpon and red carp study: ecology and development of sustainable sport fishing in French Guiana"
63	Establishment of a regional committee for sport fishing at sea
64	Bringing western fishermen out of the informal market
65	Conduct an experiment to revise the prefectural decree relating to nets in the tidal swing zone
66	Define water saline limits
67	Ensure the implementation of the measures of the fisheries plan concerning infrastructure
68	Support local initiatives for the development of shipyards
69	Develop the processing of fishing products
70	Enhance and support the profession of traditional canoe (pirogue) makers
71	Dedicate land to the development of the waste sector of maritime activities
72	Set up a secure land port

73	Develop the maritime service by Saint-Laurent du Maroni
74	Set up a dry port at the Oyapock bridge
75	Continue studies on the MpOP project
76	Adapt port infrastructure and equipment in a logic of energy and digital transition
77	Develop the infrastructure of the Port de l'Ouest
78	Consider relocation of the Port de l'Ouest
79	Develop the reception of cruise passengers in the territory
80	Develop sailing clubs
80a	Developing a nautical hub in Kourou
80b	Create a sailing club in Cayenne
80c	Strengthen existing clubs
81	Develop infrastructure for the reception of recreational sailing craft
81a	Develop the marina at Saint-Laurent du Maroni
81b	Strengthen the recreational sailing offer in Kourou
81c	Create a recreational site on the Mahury
82	Create and develop bathing sites in the west
83	Maintain canals on the coast
84	Study the opportunity of developing marine renewable energy (MRE) in French Guiana
85	Take stock of marine material resources of the Guiana continental shelf
86	Establish a coordination and exchange structure between all stakeholders
87	Develop cooperation with neighbouring States on economic matters
88	Develop cooperation with neighbouring States on environmental issues
89	Involve Suriname in discussions on the development of the Port de l'Ouest



## List of abbreviations and acronyms

ADEME	Agence de l'environnement et de la maîtrise de l'énergie (Environment and Energy Management Agency)
AEM	Action de l'Etat en Mer (State Action at Sea)
ARS	Agence régionale de santé (Regional Health Agency)
CEREMA	Centre d'études et d'expertise sur les risques, l'environnement, la mobilité et l'aménagement (Centre for Studies and Expertise on Risks, the Environment, Mobility and Development)
CMU	Overseas Maritime Council
CNML	Conseil national de la mer et des littoraux (National Council for the Sea and Coasts)
CROSS	Centre régional opérationnel de surveillance et de sauvetage (Regional Operational Centre for Surveillance and Rescue).
CSG	Centre spatial guyanais (French Guiana space centre)
CSN	Centre de sécurité des navires (Ship Safety Centre)
DdC	Degrad des Cannes
DDG AEM	Délégué du gouvernement pour l'action de l'État en mer (Government Delegate for State Action at Sea)
DGTM	Direction Générale des territoires et de la mer (Directorate-General of Territories and the Sea)
DSBM	Document stratégique de bassin maritime (Sea Basin Strategy Document)
DSF	Document stratégique de façade (Strategic Coastline Document)
MRE	Marine renewable energy
ARO	Avoid, Reduce, Offset
GPMG	Grand port maritime de Guyane
OdyC	Observatoire de la dynamique côtière (Coastal Dynamics Observatory)
ORSEC	Organisation de la réponse de sécurité civile (Civil Security Response Organization)
IMP	Integrated maritime policy
MpOP	Multi-Purpose Offshore Platform
PPR	Plan de prévention des risques (Risk Prevention Plan)
PPRL	Plan de prévention des risques littoraux (Coastal Risk Prevention Plan)
RAMSAR	Convention relative aux zones humides d'importance internationale (Convention on Wetlands of International Importance)
OR	Outermost region
SARA	Société Anonyme de Raffinerie des Antilles
SGMer	Secrétariat général de la mer (General Secretariat for the Sea)
SHOM	Service hydrographique et océanographique de la Marine (French Navy Hydrographic and Oceanographic Service)
SNML	Stratégie nationale pour la mer et le littoral (National Strategy for the Sea and Coasts)



**PRÉFET  
DE LA RÉGION  
GUYANE**

*Liberté  
Égalité  
Fraternité*

Direction Générale des territoires et de la mer  
Direction de la mer, du littoral et des fleuves  
2022

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