



CASE STUDY 1. **FRENCH OVERSEAS TERRITORIES**

The case studies form part of the International Coral Reef Initiative's Guidance Document on Integrating Coral Reefs and Associated Ecosystems into National Biodiversity Strategies and Action Plans.

SECTION 1.

INTRODUCTION



France has eleven overseas territories that contain coral reefs and associated ecosystems which are found in three marine regions: The Western Indian Ocean, the Pacific Ocean and the Caribbean (Annex 1). The territories are all islands or island groups. In addition, French Guiana on the South American continent is home to extensive mangrove forests and part of the Amazon coral reef, which lies within its territorial waters. This case study focuses on the eleven coral overseas territories of France. Information provided for this section and the following one is predominantly taken from the most recent national assessment of the status of the marine and coastal ecosystems in these territories¹.

Coral reefs in the French Overseas Territories cover almost 60,000 km² and make up 10% of the global total for coral reef area. Nearly 90% of these reefs are found in two Pacific territories: French Polynesia and New Caledonia. The latter also contains 75% of all seagrass beds in the overseas territories of a total of 1255 km². Mangroves are also present in all territories apart from Clipperton and Reunion (Annex 1) with a total spatial coverage of 87,796 hectares (ha.) and are mainly found in French Guiana (60% of all mangroves) and New Caledonia (32%).

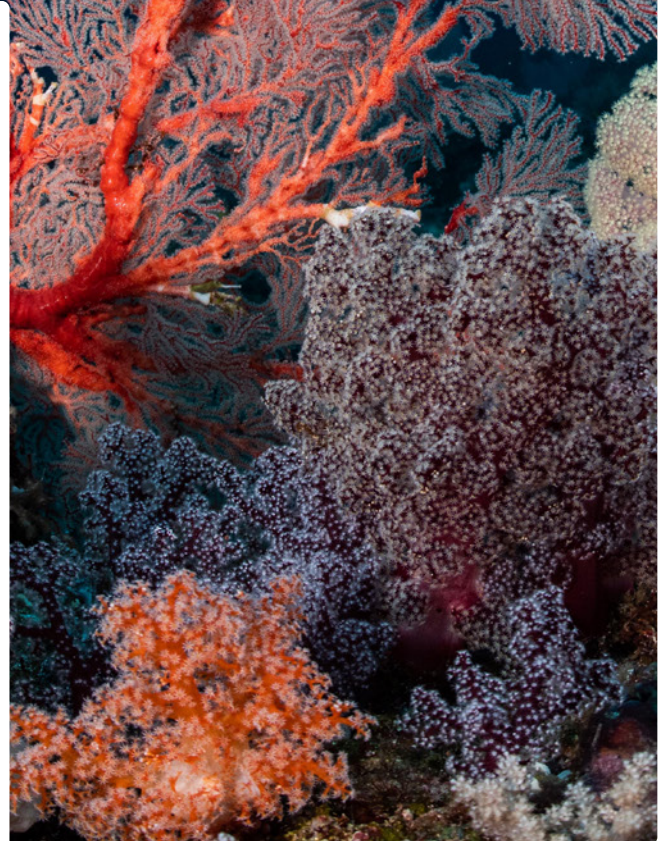
Coral reefs and associated ecosystems in the overseas territories provide several essential ecosystem services including coastal protection, fisheries, tourism and carbon sequestration, which were assessed by the French Coral Reef Initiative (IFRECOR) in 2016. It is estimated that the services provided by these ecosystems have an annual total value of €1.3 billion including €175 million for carbon sequestration by mangroves and seagrass beds².

Just over two-thirds (67%) of all coral reefs are within marine protected areas (MPAs), with a large range in the coverage and degree of protection between territories (Annex 1). For example, all coral reefs in Mayotte are within MPAs but only 2% are regarded as strongly protected. As of 2020, none of the reefs of Wallis and Futuna were protected through MPAs. Overall, 27% of coral reefs have a strong protection status. Sixteen species of reef-building corals in the Caribbean territories are protected by a ministerial order. Nearly three-quarters of mangrove forests (71%) are protected across the territories but only 26% of seagrass beds were in MPAs.

1- IFRECOR. 2021. *Health status of coral reefs, seagrass beds and mangroves of the French Overseas Territories. Initiative Française pour les Recifs Coralliens. Summary for Policymakers.* <http://www.ifrecor-doc.fr/files/original/6c2c8c211206f5857e58dffdd4b12b5c.pdf>
2- <http://ifrecor-doc.fr/files/original/8d2b089a11fc86207df5d7ac3ecd0677.pdf> (French only)



The status of coral reefs and associated ecosystems varies considerably between and within territories and between the three main regions. Ecosystem status was reported for 2020 and was split into four categories: 1. Optimal state; 2. Good state; 3. Degraded state, and 4. Very degraded state. Overall, territories with low population densities which are subjected to low or moderate anthropogenic pressure in the coastal zone had coral reefs in generally good to optimal condition. For example, 70% of monitored reefs in the Pacific territories and the Scattered Isles were assessed to be in good to optimal state. Other territories with higher population densities and greater anthropogenic pressures were rather degraded (e.g. 62% of monitored reefs in the Atlantic and Indian Ocean territories are in a poor to very poor status). The status of seagrass beds and mangroves generally follow a similar pattern to that of coral reefs in the overseas territories with these ecosystems degraded and in decline in the Caribbean (except French Guiana) and Western Indian Ocean (apart from the Scattered Isles) and healthier and stable in the Pacific territories, with some localised declines close to urban areas.



SECTION 2.

PRESSURES AND IMPACTS ON TROPICAL COASTAL AND MARINE ECOSYSTEMS

The French overseas territories are subject to a range of pressures that have impacts on coral reefs and associated ecosystems. The intensity of each pressure varies according to several factors but is generally linked to population density and the scale of coastal development in the territory. The main pressures affecting coastal and nearshore marine ecosystems have been summarised for each territory according to the level of intensity illustrated by a traffic-light system (Table 1). Further information for specific pressures in each territory is provided in the IFRECOR status report³.

An overall combined pressure rating is also provided for each territory (Table 1) which indicates that populated territories in the Western Indian Ocean and all territories in the Caribbean are subject to intense anthropogenic pressures mainly linked to high population densities, agricultural and farming practices and coastal development / tourism.

The most important drivers of ecosystem loss are associated with coastal activities and urbanisation such as soil sealing, agricultural practices, wastewater which cause the degradation of coastal water quality. Activities at sea also contribute to ecosystem loss including fisheries, especially if targeting reef herbivores, anchor damage in unregulated areas and some activities linked to tourism and recreation. In addition, there are local or regional scale drivers of ecosystem losses such as coral and or reef organisms' diseases (SCTLD⁴ in the Caribbean, sea urchin disease) and the impacts of non-indigenous invasive species (e.g. lionfish in the Caribbean). Climate change and its effects on the physical and chemical conditions of the coastal waters are the main indirect drivers of ecosystem loss.



3- IFRECOR. 2021. *Health status of coral reefs, seagrass beds and mangroves of the French Overseas Territories. Initiative Francaise pour les Recifs Coralliens. Summary for Policymakers.*

4- SCTLD: Stony Coral Tissue Loss Disease



Overseas Territory	Pressure Category									
	Agriculture	Urbanisation	Sanitation	Industry	Fisheries	Maritime traffic	Port installations	Material extraction	Fires	Combined Pressure Rating
Western Indian Ocean										
Scattered Islands TAAF										
Mayotte										
Reunion										
Pacific Ocean										
New Caledonia										
Wallis and Futuna										
French Polynesia										
Caribbean										
Saint-Martin										
Saint-Barthélemy										
Guadeloupe										
Martinique										

Table 1. Summary of key pressures on marine and coastal ecosystems in Ten French Overseas Territories
 Notes: 1. Pressure levels: red = high; amber = average; green = weak or local; white = absent or not detected; dark grey = not provided / not applicable. 2. Ecosystems of French Guiana were not assessed in 2020

SECTION 3.

PRIMARY TYPE OF CORAL REEF (OR ASSOCIATED ECOSYSTEM) INTEGRATION

Theme: REDUCING DIRECT PRESSURES AND PROMOTING SUSTAINABLE USE

Key Topic: MARINE PROTECTED AREAS

The National Biodiversity Strategy 2030 (NBS2030)⁵ is the main strategy contributing to the implementation of the Kunming-Montreal Global Biodiversity Framework in France. The third edition of NBS2030 was released on November 27th, 2023. The strategy is structured around four strategic Axes:

- **Axis 1: Reduce the pressures on biodiversity**
- **Axis 2: Restore degraded biodiversity wherever possible**
- **Axis 3: Mobilize all stakeholders**
- **Axis 4: Guarantee the means to achieve these ambitions**

These axes are made up of 40 measures and 200 actions. Coral reefs are integrated under Axis 1, specifically through Measure 1 (strengthening the marine protected areas strategy to reach 10% of lands and seas under strong protection status, and 30% under well managed protected areas) and Action 7 (strengthening the protection of coral reefs in the overseas territories).

The Strategy aims to strengthen the implementation of the coral reef action plan (2018) and targets the protection of 100% of French coral reefs by 2025. In addition, it sets a new target of having 50% of French coral reefs under a strong protection status by 2030. Developing and strengthening the marine protected area network is the key component of national action to protect coral reefs. Other themes in the coral reef action plan include coral reef restoration and maintaining or enhancing monitoring systems. Implementation of the coral reef action plan will be led by IFRECOR, working in close partnership with the relevant authorities in each territory.

The NBS2030 also aims to address the land-based pressures to improve the coastal water quality by reducing pollution coming from the watershed. Actions in the coral reef action plan that will be strengthened by the NBS2030 include:



- Raising the coral reefs and associated ecosystems issues in every water management policy at both the national and local level.
- Support projects that aim to reduce land-based pollution impacting coral reefs, including Nature Based Solutions (reforestation or restoration of buffer ecosystems).
- Strengthen the ability of MPAs to constrain development projects in the catchment area to ensure they are compatible with the reef's protection targets.

By addressing both sea and land-based pressures, NBS2030 will enable a greater resilience of coral reefs to the degradations caused by the effect of climate change.

⁵- Stratégie Nationale Biodiversité. 2023. Ministère de la Transition Écologique et de la Cohésion des Territoires, Paris, France.

SECTION 4.

SECONDARY TYPE OF CORAL REEF (OR ASSOCIATED ECOSYSTEM) INTEGRATION

NBS2030 is also dedicated to the protection and restoration of mangroves through measures and actions (A1M1 action 8: strengthen and expend the protection of mangroves). It sets a target of protecting 65% of the spatial area of mangroves in the overseas territories through efficient conservation measures by 2030.

Reducing pressures on mangroves will be achieved by improving management effectiveness in protected areas and increasing the amount of mangroves acquired by the Conservatoire Littoral for restoration and protection. Specific locations where there are the greatest levels of anthropogenic pressure on mangroves will also be prioritised such as the Mayotte and the Cayenne peninsula of French Guiana. Activities will also aim to set the definition of strong protection zones for mangroves by 2030 and improve the mapping and monitoring of mangrove ecosystems.

Protecting and restoring buffer ecosystems associated with coral reefs such as mangroves will contribute to the improvement of water quality through the retention and reduction of sediment entering coastal waters. It will also foster a greater connectivity between coral reefs and the associated ecosystems that will provide benefits both reefs and the buffer ecosystems.

The case study was developed in collaboration with the country represented and existing information for the purpose of the International Coral Reef Initiative's Guidance Document on Integrating Coral Reefs and Associated Ecosystems into National Biodiversity Strategies and Action Plans.

Download the full guidance document: <https://icriforum.org/documents/icri-coral-reefs-nbsaps/>

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ANNEX 1.

SUMMARY INFORMATION FOR CORAL REEFS AND ASSOCIATED ECOSYSTEMS IN THE FRENCH OVERSEAS CORAL TERRITORIES⁶

Territory	Land Area (km2)	Sea Area / E.E.Z. (km2)	Reef-lagoon Area (km2)	Seagrass Area (km2)	Mangrove area (ha.)	Population density (no./km2)	Reef Area Protected (%)	Area Strongly Protected (%)
Western Indian Ocean								
Scattered Islands TAAF	42.35	684,835	794	>38	626.23	0	70	48
Mayotte	374	68,492	1,406	7.6	623	690	100	2
Reunion	2,512	319,840	18.6	<0.01	0	341	68	68
Pacific Ocean								
New Caledonia	19,000	1,341,044	35,873	939.7	28,173	14.6	86	41
Wallis and Futuna	140	262,416	932	24	36.2	83	0	0
French Polynesia	3726	4,782,456	16,200	28.7	41.1	76	23	0
Clipperton	1.7	435,600	12	0	0	0	100	100
Caribbean								
Saint-Martin	53	5,098	19.4	61.5	24.2	654	33	33
Saint-Barthélemy	24		14.24	3.7	4.1	466	39	39
Guadeloupe	1,705	90,000	865	101.93	3306	229	70	9
Martinique	1,128	48,900	55.87	49.7	1856	330	100	1.8

6- Adapted from: IFRECOR. 2021. Health status of coral reefs, seagrass beds and mangroves of the French Overseas Territories. Initiative Française pour les Recifs Coralliens. Summary for Policymakers



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