

Action 2.5 Status and management of critical habitats

Task: Assess the impact of the trawl fishery on critical habitats and develop mitigation measures as inputs into the development of the FMP

CONTEXT

The national digital transformation program was initiated by the Vietnamese Government in mid-2020. Accordingly, Vietnam will fundamentally and comprehensively innovate the Government's management and administration activities with the goal of improving national competitiveness. Digital transformation was believed not to be a technological revolution but an institutional revolution. According to data from the Ministry of Information and Communications, by the end of March 2022, the whole country had 22/22 ministries, branches and 63/63 localities establishing a Steering Committee on digital transformation; 17/22 ministries, branches and 57/63 localities issued digital transformation programs/plans/projects for the 5-year period. This needs to be mentioned here, because access to information on FIP-related issues has become possible, and this enables the building up of public private partnership.

On the other hand, the role of the Ministry of Natural Resources and Environment (MONRE) on issues related to biodiversity (including habitats and ETP species) was not included in the environmental rapid assessment report in 2019-2020. MONRE is the Government agency performing the state management function in the fields general management of natural resources and environmental protection of sea and islands. MONRE is the national focal point responsible for implementing the United Nations Framework Convention on Climate Change and administers laws relating to environment protection and biodiversity management. The Ministry of Agriculture and Rural Development (MARD) is a governmental agency for management of biodiversity issues related to the forestry, fisheries and agricultural sectors. So at the central level, responsibilities for the state management of biodiversity are shared between MONRE and MARD.

Con Dao district of Ba Ria - Vung Tau province includes many large and small islands and important habitats such as mangrove forests, coral reefs and seagrass beds. This area has recorded the development of dugong populations in the past. On the other hand, the tourism, maritime and oil and gas industries are key industries of BRVT province and therefore, negative impacts on important habitats are cumulative and complex. The BRVT provincial government, especially the Department of Natural Resources and Environment (DONRE), has effectively applied integrated management measures.

This action is completed because the ultimate goal of this action is met. Impact of the fishery on critical habitats is known. Mitigation measures have been developed, implemented and reported. Inputs for the development of the FMP are sufficient.

CONTENT:

PI 2.4.3 Habitats information:

1. Substratum – sediment type:

a. Coastal geology

Group of solid formations exposed on the surface with poor load-carrying capacity, poor erosion resistance, poor to moderate storage of toxins, includes unconsolidated terrigenous sediments and sand.

b. Coastal seabed sediments

The group that is highly sensitive to environmental pollution is sediment composed of silt, silt sand, and gravelly sand: the coastal section from Vung Tau to Ca Mau is characterized by many estuaries and topographic levels separated by steep slopes. In the range from 0 - 30 m of water, due to the gentle

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terrain, the surface sediment area is continuously expanding to Ca Mau. Sand school is a very developed and occupies a large area offshore from Ba Lai estuary to Con Dao. The sand and mud field is also relatively developed, they are distributed in the southwest of Ca Na cape, the offshore area of Ham Tan and in the southeast of Vung Tau.

The group with low sensitivity to environmental pollution is sediment composed of sand and grit: in the Vung Tau - Ca Mau region, the sand field is very developed and occupies a large area offshore from the Ba Lai estuary to Con Dao. The modern sand field is distributed along the shore and from water depths of 0 - 5 m, while the offshore sand field is a relic sand field.

2. Geomorphology – seafloor topography

a. Geomorphology of coastal waters

The bottom of the East Sea has complex characteristics, divided into regions with different characteristics in depth and topography. In the direction from the coast to the sea, the bottom terrain of the East Sea is divided into coastal areas, continental shelf terrain, continental slopes and deep sea bottom.

Southern coastal region, at the depth of:

- 0 - 8m: the terrain is quite gentle and flat.
- 8 - 20m: The terrain is gently sloping, especially the estuary area in the northeast is steeper than the southwest.
- 20 - 30m: the terrain is gentle and wide, with many sand waves, and underground dunes in some places.

The sea area within the administrative scope of Ba Ria - Vung Tau province belongs to the South Central sub-region (limited to the coastline from Ca Na cape to Vung Tau). In this sub-region, the shore topography has a concave arc shape. The seabed is gentle and wide. On the shore, there are many red sand blocks on a fairly large scale, in addition to bedrock and unconsolidated sediments. Waves are the basic dynamic factor in the geomorphological process here. On both shore and bottom, erosion and abrasion are currently the dominant geomorphological processes.

b. Terrain of the continental shelf

Southeast region: includes the sea area from Phan Thiet to Ca Mau Cape, the terrain is also complicatedly divided, the division is 10 - 20 m deep, to the south of Con Dao (Ba Ria - Vung Tau) the terrain is flatter.

3. Biota – characteristic floral and/or faunal group(s)

Ba Ria - Vung Tau belongs to the Southern sea-islands, the Southeast region. This is a sea and island area quite rich in biological resources with specific ecosystems: coastal flooded ecosystem (mangrove forests), inland flooded ecosystem (Melaleuca forests), estuarine ecosystems, tropical rainforest ecosystem on the island, intertidal and shallow coastal ecosystems. Seagrass beds dominate the sea and coastal areas of the Southeast region (1,810 ha). In the Southeast coastal regions, coral reefs are more developed in places far from the mainland or with low population density, including the Con Dao cluster. The region has natural conditions that are not favorable for the development of mangrove forests into large areas, only small areas of mangrove forests are developed inside estuaries such as Loc An estuary (Vung Tau) or in lagoons and coastal bays.

PI 2.4.1 Habitats outcome:

According to report No. 81/BC-UBND of the People's Committee of Ba Ria - Vung Tau province to the MONRE dated February 6, 2024 on '*The situation of integrated management of and protection resources*

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and marine environment and islands in Ba Ria-Vung Tau province in 2023¹, forest and marine biodiversity resources are preserved and protected without deterioration in quantity and quality; Natural ecosystems of forests and seas are restored and developed. However, climate change and economic development activities at sea have caused negative impacts on habitats, specifically:

- Sea turtle breeding grounds in the area managed by Con Dao National Park are being eroded, leading to the gradual loss of breeding habitat for rare and globally protected sea turtles. Specifically, erosion points include sand beaches in the northwest of large islands such as: Dat Tham, Bai Ban, Small Dam Trau, Ong Cuong, Ong Cau; and sand beaches on small islands such as: Hon Tre Lon, Hon Tai, Bay Canh, Hon Cau.
- The phenomenon of global warming changes the temperature and water environment, causing coral bleaching. In addition, the phenomenon of the crown-of-thorns starfish (*Acanthaster planci*) appearing in high density has also had a negative impact on the recovery and development of coral reefs.
- Con Dao is a large fishing ground located in the Southeast of Vietnam and near international maritime traffic routes, so environmental pollution, including plastic waste, also adversely affects coral reefs and seagrass beds.

PI 2.4.2 Habitats management:

National level:

- On May 9, 2024, the Prime Minister signed Decision No. 389/QĐ-TTg on 'Approving the planning for protection and exploitation of aquatic resources in the period 2021-2030, with a vision to 2050'. Accordingly, BRVT province was approved to establish a new Con Dao Marine Protected Area (MPA). The MPA is under Con Dao National Park with a sea area of 34,500 hectares. In addition, the decision also approved 2 artificial habitat areas for aquatic species in the waters of BRVT including: 1,013 hectares in the Xuyen Moc coastal area (in Xuyen Moc district) and 1,050 hectares in the coastal area of Southeast of Nghinh Phong cape (in Vung Tau city).

Provincial level:

In 2023, the government of Ba Ria - Vung Tau province has implemented many synchronous solutions to protect forests and preserve biodiversity, including (1) protective patrols by functional forces; (2) propagate and raise public awareness about protecting forest and marine resources; (3) call for support and investment from organizations to preserve biodiversity in Con Dao; (4) Research on reforestation and restoration of marine ecosystems. Management issues related to habitat in 2023 that have been evaluated and reported include:

1. Plastic waste management:

- In order to effectively deploy activities to protect the marine environment in 2023, the Provincial People's Committee assigned the People's Committee of Con Dao district to issue a plastic waste management plan in Con Dao district until 2025 and a vision to 2030. The goal is to effectively eliminate plastic waste in the Marine Protected Area. At the same time, in order to implement the regulations of the Law on Environmental Protection in 2020, the District People's Committee issued Plan No. 298/KH-UBND dated October 19, 2022 on solid waste management and implementation of solid waste classification at source. The goals are 40% of households in the district implementing waste classification at source and striving to reach 80% by 2025. Households across the district effectively classify waste at source in residential areas.

¹Evaluation data and conclusions are extracted from the Report of the DONRE (for year 2023) sent to the People's Committee of BRVT province. Evaluation criteria and indicators as prescribed in Articles 9 and 10 of Circular No. 27/2016/TT-BTNMT dated September 29, 2016 by the MONRE.

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- Coordinated with WWF Vietnam to conduct a waste assessment at the beach in Ben Dam area. Results: plastic is the main waste group, accounting for 92.6%; The remaining is other mixed trash groups. There are 9 common types of plastic, the three most common types of plastic include (1) plastic bags, accounting for the highest proportion of 38%; (2) other types of plastic account for 36% with the main ingredient being plastic sacks accounting for nearly 32%; and (3) ropes/small nets account for 19%.
- Ben Dam Beach is one of the hot spots for ocean plastic waste pollution, located in Ben Dam Bay. This area is also the anchoring area for refueling or avoiding storms for most fishing vessels off the southern coast of the East Sea. The results of plastic waste assessment also clearly reflect the characteristics of waste composition in this area according to waste source. Plastic waste in Ben Dam is divided into 2 main groups: (1) plastic waste originating from the seafood industry accounts for 90%, (2) household plastic waste accounts for about 6%, other plastics account for about 4%. In particular, plastic waste drifting to Con Dao beach includes many types of waste with labels from countries in the region.
- Organized and implemented the Plan to collect and handle trash at a number of beaches and coral reefs in Con Dao National Park: (1) deployed 07 rounds of collection and handle of 597 m³ of floating trash; (2) Conducted 21 dives to collect trash and eradicate crown-of-thorns starfish at 07 coral reefs: handled 3,588kg of waste and eradicated 1,041 individuals of crown-of-thorns starfish.
- However, management and propaganda work for vessel owners has not achieved significant results, there are still vessels discharging wastewater and garbage directly into the sea. The volume of ocean waste drifting onto the coast of Con Dao is still quite large.

2. Prevent, respond, and overcome oil and toxic chemical spills at sea:

- Coordinated to participate in the Appraisal Council of chemical incident prevention and response plans for 08 investment projects in the province chaired by the Department of Chemicals - Ministry of Industry and Trade..
- Directed businesses with chemical activities in the province to regularly practice and rehearse chemical incident response such as: Southern Vietnam Petrochemical Complex, Hyosung Vina Chemical Co., Ltd., Dinh Co gas Treatment Plant.
- In 2023, no oil spills were recorded in the province.

3. Statistics on marine and island resources:

The marine ecosystem of Con Dao National Park is diverse and rich with many typical ecosystems such as coral reefs, seagrass beds, and mangrove forests. Con Dao marine ecosystem is home to 7 critically endangered species, 67 endangered and vulnerable species (according to Vietnam Red Book, 2007) and over 300 hard coral species on the CITES list.

4. General monitoring and supervision and information system and database on marine and island resources and environment:

- Monitored and supervised the phenomenon of crown-of-thorns sea star outbreaks that have devastated the coral reef ecosystem in the marine conservation component of Con Dao National Park. Collected, eradicated and destroyed 1,041 crown-of-thorns sea stars.
- Completed the database of marine and island resources and environment in Ba Ria - Vung Tau province.
- Receiving the handover of the integrated information management system for integrated coastal management (IIMS). This is a component of the project Establishing a foundation for integrated coastal management in some coastal provinces of Vietnam sponsored by KOICA.

5. Propaganda about seas and islands

Decision No. 1175/QD-UBND dated May 19, 2023 on Communication plan to raise awareness in effective management, exploitation and use of natural resources and environmental protection in Ba Ria - Vung Tau province includes:

- Propaganda about World Oceans Day on the media;
- Organize 03 propaganda training sessions on the practice of waste separation at source for residential areas;
- Disseminate and educate about laws on integrated management of natural resources and environmental protection of seas and islands;
- Organizing a conference on sea and island propaganda at Ba Ria - Vung Tau University and related activities for high school students.

6. Inspect and handle violations in exploitation and use of resources and protection of the sea and island environment

- In Xuyen Moc district, inspections of coastal tourism facilities have been planned and carried out.
- Regularly patrol established areas and mark coastal protection corridors; Strictly manage prohibited activities within the coastal protection corridor.

7. Scientific research

- Topic: Assessing the current status of sea-cow (Dugong) populations and seagrass ecosystems in Con Dao, proposing management and conservation solutions. The research commissioned by the Institute of Marine Resources and Environment. The project has been implemented since May 2021. Currently, phase 4 is being implemented. Content: Collect, analyze, and evaluate all existing documents related to natural conditions, socio-economic and environmental and biodiversity conditions affecting Dugong populations and seagrass beds in Con Dao; Investigate, and collect information about the current status of the Dugong population in Con Dao; Investigate the current status of seagrass beds, develop data on seagrass in Con Dao; Research the causes affecting the activities of Dugong populations, the causes affecting the development of seagrass beds in Con Dao; Proposing effective management and conservation solutions for Dugong populations and seagrass beds in Con Dao.

In addition, in 2023, the province has organized an Advisory Council to select host organizations and individuals to implement 04 projects related to the field of environmental resources, expected to be implemented in 2024, including the following topics:

- Research, evaluate and pilot a system to collect trash drifting onto the coast of Vung Tau city.
- Applying remote sensing technology to monitor ocean waste and building an offshore collection system for the waters of Con Dao district, Ba Ria - Vung Tau province.
- Assessing environmental carrying capacity and proposing solutions for sustainable tourism development in Con Dao district, Ba Ria - Vung Tau province.

Sources:

1. Decision No. 389/QD-TTg on '*Approving the planning for protection and exploitation of aquatic resources in the period 2021-2030, with a vision to 2050*', signed by the Prime Minister, dated on May 9, 2024
2. Report No. 81/BC-UBND of the People's Committee of Ba Ria - Vung Tau province to the MONRE dated February 6, 2024 on '*The situation of integrated management of and protection resources and marine environment and islands in Ba Ria-Vung Tau province in 2023*'