



ASSESSMENT OF NATIONAL MANAGEMENT PLANS AND RELATED LEGAL FRAMEWORKS/ POLICIES IN THE EA, SA & IO REGION

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CONTENTS

1.	INTRODUCTION AND BACKGROUND	5
1.1.	Background	5
1.2.	Key objectives of the study and structure of the report	5
2.	POLICY AND LEGAL FRAMEWORKS GOVERNING THE	
	NATIONAL FISHERIES SECTOR	6
3.	ASSESSMENT OF THE IMPLEMENTATION OF THE	
	NATIONAL FMPs	8
3.1.	Overview of existing FMPs	8
3.2.	Success	11
3.3.	Gaps	11
	3.3.1. Conception	11
	3.3.2. Content	12
	3.3.3. Implementation, M&E	12
3.4.	Other priority fisheries not currently under management plans	13
3.5.	Key challenges of the implementation of the management plans	14
3.6.	Key opportunities of the implementation of the management	
	plans	
3.7.	Budget to the Implementation of FMPs	
4.	CONCLUSION	16
5 .	REFERENCES	18
ANN	EX 1: Overview of the FMPs currently being	
	implemented (with objectives and management	
	measures)	19
ANN	EX 2 : Policy and legal frameworks details	24
ANN	EX 3: List of stakeholders (Administration)	26
ANN	EX 4: List of stakeholders (Fisheries Operator)	27
ANN	EX 5: Number of fishermen, dugouts and used gears	28

1. INTRODUCTION AND BACKGROUND

1.1. Background

Madagascar is an island nation blessed with many assets. It has a population of 27 million, of which 50% of the labor force comprises of people aged 15 years and older (World Bank Data, 2020). Natural resources and especially fisheries resources are key to sustainable economic development in a country where 75% of the population was still estimated to live below the international poverty line in 2019 (World Bank, 2021) (77.9 percent of the rural population is poor as opposed to 35.5 percent for urban areas) (World Bank, 2016) and the fisheries sector supports nearly 1.5 million people living along the coastline (OEPA, 2020).

The total annual production of fishery resources in Madagascar has varied significantly from 2000 to 2020. With more than 71,000 tons in 2020, small-scale fisheries represent 60% of the national production (MPRH, 2013 – Enquête cadre nationale). The Fisheries and Aquaculture sector plays an important role in the national and regional economy of Madagascar. It contributes to the economic growth of the country with 6.6% of the national GDP in 2018 (OEPA, 2020).

The sector is also a very important source of employment. It is estimated that the sector has 170,000 direct full-time jobs equivalent and 300,000 indirect jobs. 68% of these direct jobs are generated in the production phase (fishing and aquaculture) and 30% created in fish trade, collection and export.

1.2. Key objectives of the study and structure of the report

As part of its initiative to enhance equitable economic growth by promoting sustainable fisheries in the EA-SA-IO region, ECOFISH has launched a review of the SWIO regional and national fisheries management plans FMPs.

The study aims to

- Undertake an inventory of existing national and regional fisheries management plans of the SWIO region partner countries.
- ii) Assess the capacity needs and gaps as well as constraints and barriers for effective operationalization of these management plans at national and local levels.
- iii) identify potential national priority fisheries that could be managed more synergistically by "sharing" scientific and socio-economic knowledge,

lessons learned and good practices, and joint capacity building –based on principle of complementarity and subsidiarity among the partner countries.

In this respect, the report synthesizes the findings from Stakeholder consultation and input. The identified stakeholders were national experts, representatives of the public sector including public policy makers, fisheries managers and local authorities, Fisher associations, actors of the private sector, Donor and Development Agencies, and NGOs assisting fishers.

The report is structured as follows: the in-force Policy and legal frameworks governing the national fisheries sector; an overview of the national fisheries management plans including an analysis of success, gaps, other priority fisheries not currently under management plans, key challenges and key opportunities of the implementation of the management plans.

This report does not attempt to provide an exhaustive list of the strengths and weaknesses of the national FMPs. It provides the key findings from interviews, stakeholder surveys and experiences especially in the small-scale fisheries sector.

2. POLICY AND LEGAL FRAMEWORKS GOVERNING THE NATIONAL FISHERIES SECTOR

The national Fisheries, Aquaculture and the Blue Economy are essentially guided by the General Policy of the Government of Madagascar through the Plan Emergence Madagascar (PEM), the National Code of Fisheries and Aquaculture as well as the international conventions ratified by Madagascar. The main strategy of the PEM to which the Fisheries sector is committed is the contribution to food self-sufficiency.

A list of the national policy and legislation on the fisheries sector is provided in annex 2. The main sources for the collection of these listed frameworks were FAOLEX and interviews of key contacts at the Ministry. Legal instruments dealing with common issues such as climate change, industrial pollution have not been considered in this report.

To promote the application of the principles of good governance in accordance with the preparation and implementation of public action, the Malagasy Government has adopted a National Strategy for Good Governance of Maritime Fisheries, finalized in 2012. The general objectives of the fisheries sector as stated in the National Strategy of Good Governance of Marine Fisheries (*Click here*) are:

- I. Guarantee the integrity of the natural capital and the sustainability of the fishery resources, and to contribute to the preservation of the marine and coastal environment.
- II. Increase the creation of wealth in the sector, by opting for differentiated approaches according to the fishery, sector or fleet in question, as well as with regard to the modes of exploitation and the modes of valorization.
- III.Ensure a more equitable distribution of the wealth created by the sector in accordance with the national objective of economic and social development of the country and poverty reduction.
- IV. Increase the availability and improve the quality of fishery products in accordance with the food needs of the Malagasy population.

As of 2015, the fisheries and aquaculture sector in Madagascar has been governed by Law No. 2015-053 of 16 December 2015 on the Fisheries and Aquaculture Code. It is composed of 182 articles divided into three (03) books and aims at the sustainable governance and management of fisheries resources. In this framework, the objectives are:

- I. Preserve aquatic ecosystems and protect the biological diversity of Malagasy waters and the high seas.
- II. Increase the contribution of the fisheries and aquaculture sector to food and nutritional security, as well as to the economic and social development of Madagascar.

An amendment was made to the Fishing and Aquaculture Code No. 2015-053 under the Law No. 2018-026. The amended provisions mainly concern the deletion of articles that lead to overlapping responsibilities between ministerial departments (mangrove ecosystem case) and the adjustment of provisions relating to illegal activities.

In addition to the policy and legal frameworks, a guide for the development of FMP (<u>Click here</u>) has been developed as a result of the recommendations proposed by the assessment of the existing FMPs. It aims to:

- I. Capitalize on the achievements of existing FMPs (good practices and pitfalls to avoid).
- II. Gather the references and principles with regard to sustainable management and good governance of natural resources that can be adapted to the Malagasy context.

III. Provide a roadmap and recommendations for more effective and efficient FMPs

3. ASSESSMENT OF THE IMPLEMENTATION OF THE NATIONAL FMPs

3.1. Overview of existing FMPs

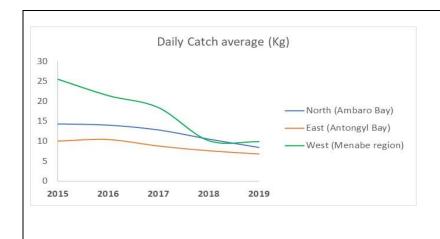
While the continuation and sustainability of fishing activities can only be ensured with healthy and productive ecosystems, fisheries resources, like all natural resources is open access in Madagascar, subject to increased pressure, particularly due to population growth.

Indeed, in addition to the natural increase in population, the coastal areas are experiencing significant migratory flows with the displacement of fishermen in the hope of finding more productive fishing areas and the reconversion of farmers who head for the coasts to practice fishing. Population growth in coastal areas is higher than inland areas and is recognized as one of the factors of anthropogenic pressure on fish stocks (Le Manach *et al.*, 2012; Fattebert, 2020).

The Ministry in charge of fisheries released in 2015 the blue policy letter (2015) – Lettre de Politique Bleue (*Click here*) – with a ten-year horizon. It is a reference framework for the Malagasy fisheries sector. It outlines the principles that should guide public action in the long term and provides the main orientations.

It aims to ensure consistency between the approaches, strategies and arrangements for the management and promotion of the sector. It has pointed out the weakness of the regulatory framework for small-scale fisheries and the downstream part of the sector, which is at the origin of the vulnerability of fisheries resources and coastal ecosystems, the accumulation of fishing overcapacity around the villages and a certain impoverishment of traditional fishers' communities (MRHP, 2015)

A significant decrease in production as measured by the average daily catch has been observed in the majority of the fishing areas in Madagascar. One of the measures usually adopted in order to allow the restitution of stocks and thus avoid their depletion, is the imposition of periodic fishing closures targeted by species per area, for inland fisheries, and on the whole national territory, for marine fisheries.



The figure to the left shows the results of the survey performed by OEPA in 2019. The results show a decreasing trend in the fishermen' average daily catch, an average annual -14%. variation of The fishermen surveyed used the gillnet with the same characteristics that target especially semi-pelagic fish.

In addition, the establishment of marine protected areas including local temporary closure (temporary reserve) has especially been suggested by NGOs. On the other hand, the experiences drawn from a continuous and long-term presence in the ground have demonstrated the capital importance of putting the fishers' communities at the centre of any management model, following the example of the comanagement system, in order to ensure longer term local fisheries governance (USAID, 2019).

However, limits to this community-based approach have been identified, among others, in terms of real and sustainable commitment of fishermen. Therefore, in order to ensure a better anchorage and, at the same time, to develop a more inclusive management approach, the Ministry in charge of fisheries has advocated the development of Fisheries Management Plans or FMPs, related regulatory frameworks and a guide for a better supervision of their elaboration.

By promoting a concerted approach in the elaboration of successive plans, the name Concerted Fisheries Management Plans CFMPs – Plans d'Aménagement Concerté des Pêcheries – has been adopted. The CFMPs are thus expected to consolidate the efforts for the sustainable management of fishery resources by involving in particular small-scale fishermen. The latter are identified as the groups most impacted by a possible decline of the fisheries sector.

Three CFMPs have been developed, formally adopted and are being implemented. Details of these CFMPs are given in Annex 1. The CFMPs are valid for a period of five years and come into effect by regulation.

I. CFMP Antogil Bay or PACP BA

Status: Validated in 2014, Officialized in 2015, Amended in 2017, Under implementation.

Regions covered: Region Analanjirofo with a sea water surface of 2,980 km² and 360 km of coastline.

II. CFMP Ambaro, Tsimipaika Bay, Ampasindava Bay and Nosy Be Archipelago or PACP BATAN

Status: Validated in 2017, Officialized in 2017, Under implementation.

Regions covered: 24 municipalities of Districts of Ambanja, Ambilobe, Nosy Be

and Diego II.

III. CFMP Melaky Region or PAP Region Melaky

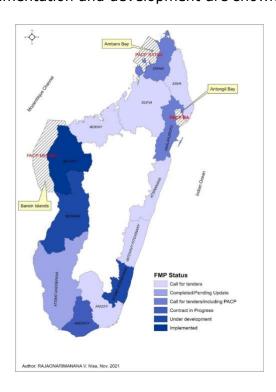
Status: Validated in 2016, Officialized in 2016, Under implementation.

Region covered: Melaky with the Barein Islands and 3 Districts estimated at 4,317 km²

Developed by the Ministry in charge of fisheries with the support of NGOs, such as Wildlife Conservation Society for the PACP BA, WCS and World Wide Fund for Nature for BATAN and Blue Ventures for the Melaky Region, the CCFMPs are framed by existing laws and policies, in particular the national strategy for good governance of marine fisheries in 2012, and are inspired by the FAO voluntary guidelines for the sustainability of small-scale fisheries in the context of food security and poverty eradication. Their elaboration has been following the ecosystem approach to fisheries EAF.

By prioritizing the development of the exploitation of products that bring in foreign income, namely shrimps, lobsters, sea cucumber, crabs, etc. the Ministry in charge of fisheries has realized that there are regulatory and management measures gaps surrounding marine fish. With this in mind, the management plan for the demersal fish fishery was developed (MPRH, 2013). However, the implementation plan for the latter has not been drafted and thus no related activities have been undertaken.

The CFMPs under implementation and development are shown on Map 1.



Map 1: CFMPs under development for the remaining coastal regions

3.2. Success

- The Fisheries Management Plans developed so far should be considered as the initial basis for deploying policies and strategies already in force and also upon which Madagascar can advance work to improve the national policy and legal frameworks, thus contributing to the ultimate goal of sustainability in fisheries. FMPs are living documents and can be improved as experience is gained in their development and implementation. Furthermore, updates and the development of new plans are scheduled.
- The authors relied on international standards and principles, including FAO Standards/Guidelines for Sustainable Management of Fisheries including the Code of Conduct for Responsible Fisheries (CCRF), the Ecosystem Approach to Fisheries implementing the CCRF, as well as existing national legal and regulatory frameworks including the law enabling decentralization of resource management (GELOSE).
- They were developed on the basis of effective consultation in the successive phases from their conception to their validation. Each FMP highlights the participation of various stakeholders involved in its implementation, which include fishermen communities, community-based organizations, decentralized territorial authorities, and non-governmental organizations (USAID, 2019).
- In terms of implementation, communication of data, actions, and events is facilitated by the existence of a "pseudo-network" of key actors organized around each of the PAPs. This situation partly bridges the gap in resources at the administrative level.
- Based on the same principles of ecological well-being, human well-being and capacity to achieve, several activities of the ongoing FMPs are shared despite the specificities of each fishing area. These similarities enable the adoption of common methodologies for implementation and monitoring-evaluation. Indeed, they facilitate monitoring-evaluation by comparing the progress of all the FMPs and sharing experiences and solutions to similar problems.

3.3. **Gaps**

3.3.1. CONCEPTION

- The first three FMPs have expired/are about to expire. Their update and the development of new FMPs are overdue.
- Differences in understanding of the FMPs persist between actors from local communities, on-site project promoters, and even representatives of decentralized government entities.

- Error in definition or calibration of actions which in the end do not necessarily reflect the needs and expectations of the actors and beneficiaries, problems of form such as the FMPs are not available in the local language and/or are not accessible to the public
- Most of the ongoing FMPs are based on the values and purpose of the initiator, with low consideration of other aspects needed for rational resource management and a real sustainable livelihood scheme.

3.3.2. CONTENT

- The commitments of the fisheries sector in achieving the objectives of improving the food and nutritional security of fishermen and fish farmers and strengthening their resilience to hazards and disasters are not clearly defined in the various FMPs.
- The objectives are not sufficiently reflected in indicators that would make it possible to measure their impact. The corresponding means of verification are not very explicit.
- Moreover, the chosen indicators do not provide a concrete assessment of the evolution of the implementation and the impact of the suggested measures within the FMPs. The various FMPs and the respective Implementation Plans do not include information on the baseline situation. The quality of the information does not allow for informed decisions for sustainable management of the sector's resources. Improvements through the planned updates of FMPs should be made.
- Various measures proposed in the FMPs have a "footprint freezing" character and have therefore palliative purposes for an appointed period. However, such provisions are not accompanied by consultations or research to evaluate their effectiveness.
- The geographical delimitation of the first three FMPs was substantially carried out according to the areas of intervention of the project promoters on-site; this is not necessarily in favour of the interest of the whole fishing area concerned by each FMP.

3.3.3. IMPLEMENTATION, M&E

- Indicators (indicators of activities implementation progress) not appropriate for measuring the impacts of the measures recommended in the FMPs.

Example, PACP BATAN Operational Objective: Ecosystem and sensitive habitat restoration. Management Measure: Awareness of habitat destruction impacts - Indicator: Number of coastal communities' awareness (that does not inform on

the quality of the training nor on the appropriation of good practices by the beneficiaries)

- Lack of visibility on the progress of the implementation of the PAPs and lack of synergy of actions in the absence of M&E specialized skills and tools. Need for a common and shared dashboard for the monitoring-evaluation of each FMP.
- Not implemented or overlapping activities within the same fishing area bounded by the same FMP despite the division of roles and responsibilities in the FMPs or IPs.
 Communication gaps. Activities implemented by promoters according to their priorities and the financing obtained.
- Plan implementation structure and Plan implementation support structure have not been put in place and are therefore not operational as foreseen in the FMPs. Conflicts of responsibilities between field actors (e.g., decentralized government entities, NGOs). Problem partly solved thanks to the intervention of the SWIOFISH-2 project, which mainly plays the role of coordinating the implementation and development of FMPs.
- Small number and limited qualification of government employees for intensive field work (extension, sensitization, monitoring...). Low financial capacity for the Ministry in charge of fisheries to assume its regalian role.
- Delay in updating FMPs: Internal problems of the supporting program, COVID 19...
- Total costs related to M&E, surveillance, measures enforcement and research have not been estimated over the period of implementation of the FMP. The related activities are carried out according to the priorities and means at the disposal of the promoters. Adoption of the "project approach" (actions limited in time, budget and according to the objectives agreed with the donors), poor impact on the global and sectoral plan.

3.4. Other priority fisheries not currently under management plans

Small-scale artisanal fisheries in Madagascar are still under an open access regime. This type of fishery is multispecies and multi-gears which would need a more elaborate FMP. .

Current trends in government actions are moving towards covering all (13) coastal regions of Madagascar under management plans. These plans should inevitably address the management of all flagship species in each region, high commercial value species, species that contribute to local, regional and wider socio-economic development, overexploited species, etc. The collection of data and fundraising are easier in this way i.e., geographical intervention rather than by species.

3.5. Key challenges of the implementation of the management plans

- Fisheries sector institutional and political anchoring is globally unstable in Madagascar. Lack of continuity in public action and a certain personalization of priorities according to the officials in place and according to the financing of external aid.
- Fishermen are overwhelmed by the financial needs of the moment. The benefits of medium- and long-term measures are ignored.
- Complexity and inefficiency of resources management mechanism to enable the fisheries sector to be self-financing and to stand as a real development lever for Madagascar. Recurrent lack of budget to develop and implement the FMPs.
- The implementation is not harmonized, and each stakeholder has its own approach for the implementation.
- Some key stakeholders need capacity building for the implementation.
- Interference of politicians or political authorities at arrests. Discouragement of those who scrupulously follow the regulations in force.
- Insufficient material and human resources in charge of control and surveillance. The surveillance of fishing activities is even weaker for small-scale fisheries
- Need for precision/update for some provisions within regulatory frameworks. The elaboration and updating of the application regulations of the new law on the Code of Fisheries and Aquaculture in Madagascar are planned with the support of the project SWIOFISh-2.
- Need for scientific/other data collection. Indeed, the status of stocks of most fisheries resources is unknown, preventing informed policy, strategy, regulatory and harvesting decisions.
- Significant pressure on fisheries resources due to high population growth in coastal areas (significant and uncontrolled migratory flows to the coast, displacement to more productive areas, conversion of farmers to the exploitation of natural resources).
- The sector's sustainable development objectives are giving way to purely economic considerations to meet urgent daily needs. Reversing the trend of measures taken in this context is almost impossible as long as the population is poor. Need for synergy between all development sectors.

- Lack of information on the market and skills and infrastructure to preserve and process the fisheries products. The fishermen remains at the mercy of the collectors who set the prices to their advantage.
- The goals of fisheries in Madagascar are clear but the strategy to achieve them is not clear and changes very often.
- There is no periodic information available for the condition of each type of fishery. Monitoring is most of the time conducted by partners of the Ministry in charge of fisheries.

3.6. Key opportunities of the implementation of the management plans

- Potential New management plans being developed
- The Master Plan of the Fisheries and Aquaculture sector for the period 2019- 2023 should be validated and adopted as soon as possible. Indeed, the plan gives the general orientations of development of the Government of Madagascar in terms of fishing. It sets the objectives as well as the different strategies and relative action programmes.
- A guide for the elaboration of fisheries management plans (*Click here*) was developed in 2019, thus allowing the process to be harmonized.
- The renewed dynamism of the blue economy in Madagascar materialized in particular by dedicating a Ministry in charge, with fisheries
- Ongoing consultations to redefine/define areas dedicated to small-scale fisheries.
- Convergence of external assistance to support the small-scale fisheries sector including World Bank funded SWIOFISH-2 project and Launch of the project ""Creating an enabling environment aimed at ensuring the sustainability of artisanal (small-scale) fisheries, funded by FAO this November 2021
- The Government of Madagascar has announced its formal application to participate in the Fisheries Transparency Initiative (FiTI). This international mechanism aims to help coastal countries increase the credibility and quality of national fisheries information. For Madagascar, this initiative is part of its efforts to fight corruption.

3.7. Budget to the Implementation of FMPs

The Project SWIOFISH-2 was launched in 2017 mainly to strengthen the implementation activities of the existing CFMPs and to support the development of

new CFMPs in fisheries areas not yet covered. The project has a total budget of \$84 million and runs through 2024.

From the assistance of the project, a budget is normally defined in the implementation plan of each FMP, such as the CFMP BATAN in 2017 for which the implementation is estimated at 32 billion MGA (\$8 million approx.). In addition, the development of the remaining 10 CFMPs is estimated at \$900,000. The budget allocated to the implementation of the FMPs is almost all supported by the project SWIOFISH-2 including the transfer of funds to the implementing agencies (NGOs). However, this arrangement does not preclude contributions from other entities such as Missouri Botanical Garden, Project Integrated Growth Pole (PIC), Madagascar National Parks, Alliance Voahary Gasy, HayTao USAID Project and others. These contributions are not defined in advance but rather according to the priorities and availability of each entity.

4. CONCLUSION

The exploitation of fisheries resources in Madagascar is dominated by small-scale fisheries which provides at least 60% of the national production. However, a significant decrease in production has been noted for almost two decades. Fishing has rightly become an activity of substance for the populations that practice it. Poor management of the exploitation and the application of unsustainable practices are among the major causes of the situation of resource depletion. There are also the displacements of fishermen due to the search for more productive areas and the uncontrolled migration of agricultural populations who convert into fishermen, given that the fishery resources are open access, and the sector is less impacted by climate change. All of this is leading to increased pressure on the resources. At the same time, political and strategic decisions and the monitoring of the measures put in place are limited by non-existent/inadequate data and weak internal capacities. The combination of all these facts means that today, the contribution of the fisheries sector on the socio-economic level is not very significant.

From 2015, the fisheries administration has been equipped with a new management system. Three FMPs, on area-basis, have been adopted with the ambition to find fair balance between human and ecological well-being and to make the fisheries sector a real lever for development.

In this endeavor, the FAO's voluntary guidelines with the ecosystem approach has been a major inspiration for the development of FMPs. The authors also insisted on the concerted nature of the approach, hence the generalized name Concerted Fisheries Management Plan. Their elaboration has seen the participation of fishing communities in the regions concerned.

The experience of the 5 years of implementation of the first CFMPs has highlighted positive results that deserve to be reinforced, duplicated, and scaled up. Firstly, because these are the first concrete efforts of the public administration in the fisheries sector in terms of co-management. Networking and sharing of experiences between and among the fishing areas is taking place. A better coordination of the efforts of the actors in the sector is observed. However, gaps have been identified and must be filled in order of priority for the FMPs to fully assume their role as an instrument for the effective management of fishery resources.

There is also a need to improve the environment for implementing FMPs. The advent of the project SWIOFISH-2 has particularly revitalized the sector through the financial and technical support of the administration in the implementation and development of FMPs. The strategy adopted by the public administration is now to cover all the fishing areas through the development of FMPs for the remaining 10 coastal regions. It is expected that the FMPs developed thereafter will not leave any species aside, will represent the specificities of the regions concerned and will consider the strengthening and/or new opportunities for regional cooperation in the Indian Ocean. Other incentive frameworks also deserve to be supported. The national Fisheries and Aquaculture sector Master Plan is currently being updated. The application regulations of the Fishing and Aquaculture Code are expected to be developed and/or updated. Initiatives for the fight against corruption, the promotion of good governance and the blue economy are also gaining momentum in the fisheries sector.

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ANNEX 1: Overview of the FMPs currently being implemented (with objectives and management measures)

CFMP d'Antongil Bay¹ (BA)

Validation: in 2014²

Officialization: in 2015 Modification: in 2017³

Under implementation

Region Analanjirofo

2,980 km² of sea water and 360 km of coastline

Planning objectives and measures

Objective 1: Preservation of the environment to ensure the sustainability of ecosystem services and guarantee, in particular, the regeneration of fisheries resources.

- Establishment of ecosystem services restoration areas and restricted use areas (controlled use areas)
- Mitigation of the effects of fishing gears and practices that may cause irreversible degradation of the marine environment

Objective 2: Establishment of a sustainable exploitation of fisheries resources allowing the improvement of the standard of living of the coastal populations, in general, and of the fishermen in particular

- Freezing the number of traditional fishermen and their fishing gear.
- Freezing the number of artisanal boats and their fishing gear.

¹ Ministère des ressources halieutiques et de la pêche, 2015, Plan d'aménagement concerté des pêcheries de la Baie d'Antongil, , République de Madagascar, World Conservation Society

² Arrêté 37.069 du 18 décembre 2014 portant définition du PACP de la B.A

³ Arrêté 11907 du 2017 portant modification de l'arrêté 37.069

- Freezing the number of industrial trawlers that can work in the bay.
- Limitation of the number of industrial fishing licenses for small pelagics.
- Freezing the number and scope of catch permits for small-scale and artisanal fisheries.
- Development of the exploitation of zones and resources poorly or not exploited.

Objective 3: Equitable distribution of the wealth created by the fisheries by improving the local population's share of the interests of the communal, regional, and national economy.

- Allocation of a portion of the state's fishing license and harvesting permit revenues for fisheries management and development in the Bay
- Transfer of a portion of industrial trawler Fish to consumers in the Bay.

CFMP d'Ambaro Bay, Tsimipaika Bay, d'Ampasindava Bay and Archipelago of Nosy Be (BATAN)

Validation:

Officialization: in 2017⁴

Under implementation

24 municipalities

Districts: Ambanja, Ambilobe, Nosy Be and Diego II

Planning objectives and measures

Objective 1: Maintain the quality of services provided by the ecosystems that produce fisheries resources by preserving sensitive habitats that ensure the renewal of fisheries resources.

- Promotion of the effective preservation of sensitive habitats considered still intact and the restoration of those already in degradation.
- Massive consideration of the spawning season of exploited resources
- Development of efforts on the control of non-selective fishing gears Objective 2: To ensure the establishment of a sustainable exploitation of fisheries resources allowing the improvement of the living conditions of the key actors and

the coastal population.

- Strengthening and improving the control and monitoring system to increase

⁴ Arrêté ministériel N°14.191 du 09 juin 2017

- the frequency of missions as well as the effective application of the texts in force; the production of new texts will depend on the effective application of those that are already official.
- Promotion of the product valorization system: The corresponding measures can intervene not only on the instability of the price of the products but also indirectly on the moderation of the fishing effort.
- Promote alternative income-generating activities. It is recommended to analyze the success stories of other regions in terms of seaweed farming, holothuriculture, and market gardening. This measure especially allows to mitigate the fishing efforts and to increase the source of income.

Objective 3: To ensure a more equitable distribution of the wealth generated by the fisheries by improving the share of local populations through communal, regional, and national economic interest to promote more sociable, respectful, and better organized community organizations.

- Promote an operational organizational structure towards the key actors (local fishermen), the establishment of a basic structure composed by real fishermen is essential for this, starting with the fishermen's group by fokontany, then the fishermen's union at the communal level and the fishermen's federation by subdivision of the area concerned by the plan (Ampasindava, Tsimipaika, Ambaro and Nosy Be); These different levels of structure should benefit from training on different themes (Governance, Leadership, Management, negotiation capacity, etc.). so that they can be able to carry out their respective tasks as promoters of local development.
- Promote exchanges and consultations between the fishermen's structures and the local authorities (CTD and STD) to define together the priorities for the local development to be established.

CFMP Melaky

Validation: in 2016

Officialization: in 2016⁵

Melaky Region

3 districts

Characteristic: management of the New Protected Areas (NAP) Barren Islands with an area of about 4,317 km2.

Planning objectives and measures

Objective 1: Preservation of the marine and coastal environment to ensure the

⁵ Arrêté ministériel N°23.283 du 7 novembre 2016

sustainability of the regeneration of fisheries resources

- Fighting against the degradation of mangroves
- Preserve the health of coral reefs
- Preserve or restore the health of seagrass areas
- Establish marine areas managed by resident fishing communities
- Contribute to the investigation of the main causes of the drastic reduction of the exploitable shrimp biomass
- Strictly enforce regulations to preserve the abundance of fish products on a permanent basis

Objective 2: Establishment of a sustainable exploitation of fisheries resources, to improve the standard of living of village communities, especially fishermen

- Increased production and income of village maritime fishermen
- Improvement of the value of their catches
- Prevention of the decrease in catches by the establishment of measures allowing the management of the number of fishermen and the fishing gear used in the Melaky Region.

Objective 3: More equitable distribution of the wealth created by the fisheries, improving the Region's share in relation to the interests of the national economy

- Allocation of part of the fees on fishing licenses and collection permits to the management and development of fisheries in the Melaky Region
- Study of the possibility of creating, in the Melaky Region, a plant for the processing and conservation of catches from industrial, artisanal, and small-scale fishing, within the framework of the reallocation of shrimp fishing licenses, in 2020

FMP Demersal fish

Effective date: 2013

Validity: 5 years

Annual evaluations planned

No longer under implementation

Atsimo Andrefana, Boeny et Atsinanana Regions

Planning objectives and measures

Management objective N°1: Sustainable exploitation of exploited fisheries resources

Operational objectives:

- 1.1 Regulation of access to demersal fish for traditional fishing
- 1.2 Extension of fishing areas

1.3 Improvement of biological knowledge on the resource and socio

economic knowledge of the fishery

Development objective N°2: Preservation of ecosystems and reduction of the impacts of human

activities on the environment

The operational objectives are

- 2.1 Protect coral reefs, mangroves and the coastal ecosystem;
- 2.2 Promote marine fishing reserves in the Boeny and Atsinanana region;
- 2.3 Protect the aquatic environment from pollution of various origins

Development objective N°3: Improvement of the working and living conditions of the

fishing communities

The operational objectives are:

- 3.1 To improve the income of the fishermen
- 3.2 To reinforce the security measures of the fishermen at sea;
- 3.3 To improve the capacity of fishermen to adapt to climate change
- 3.4 To valorize and improve the visibility of the fishermen's profession

Development objective N°4: Improvement of the governance of the demersal fish fishery

demersal fish fishery

The associated operational objectives are:

 $4.1\ {
m To}$ complete and update the regulatory texts on fishing and to improve their application

their application;

- 4.2 To recast the statistical data collection system adapted to the small-scale fisheries;
- 4.3 Strengthen the transparency of fisheries decision-making
- 4.4 Strengthen institutional capacities

ANNEX 1 : Policy and legal frameworks details

Updated list of the legislation on Fisheries of Madagascar ⁶			
Legislation	Status		
2021 Decree No. 856 on the attributions of the Ministry of Fisheries and Blue Economy and the general organization of its Ministry	In force		
2017 Ministerial Order No. 29211 on transfer of the management of fisheries resources and aquatic ecosystems	In force		
2016 Port State Measures Agreement Adhesion Law No. 043	In force		
2016 Decree No. 1493 on the regulation of aquaculture activities	In force		
2016 Decree No. 1492 on the general reorganization of marine fishing activities	In force		
2015 Law No. 053 on the Code of Fisheries and Aquaculture	In force		
2015 Law No. 005 on the Code on the Management of Protected Areas	In force		
2014 Ministerial Order No. 21816 on prohibiting the exploitation of black coral at national level	In force		
2010 Decree No. 137 on the integrated management of coastal and marine zones	In force		
2005 Decree No. 848 regulating the 2001 Protected Areas Code	Repealed		
2003 Decree No. 076 on the attributions of the Ministry of Agriculture, Livestock and Fisheries	In force		

⁶ FAO. 2021. Legislating for an ecosystem approach to fisheries – Revisited – An update of the 2011 legal study on the ecosystem approach to fisheries. FAO EAF-Nansen Programme Report No. 36. Rome. https://doi.org/10.4060/cb6750en

2002 Order No. 1612 on deep-sea fishing	In force
2002 Order No. 6535 on the closure of all fishing in the region of Ihorombe for specific period	In force
2001 Protected Areas Code Law No. 005	Repealed
2001 No. 020 Law on Responsible and Sustainable Shrimp Aquaculture	In force
2000 Decree No. 415 on shrimp trawling	In force
1999 Decree No. 954 on compatibility of investments with the environment	In force
1996 Law on Local Management of Renewable Natural Resources No. 025	In force
1996 Inter-ministerial Order No. 567 on the Committee on fisheries and aquaculture activities	In force
1994 Decree No. 112 on organization of marine fisheries activities	Repealed
1993 Fisheries and Aquaculture Ordinance No. 022	Repealed
1990 Law on the Malagasy Environmental Charter No. 033, as modified by 1997 Law No. 012	In force
1985 Ordinance No. 013 on establishing maritime zones of Madagascar	In force
1980 Order No. 0287 on the closure of shrimp trawling in designated area for specific period	In force
1975 Order No. 0525 on the minimum size for sea cucumbers	In force

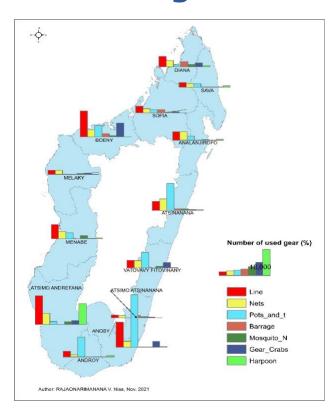
ANNEX 2: List of stakeholders (Administration)

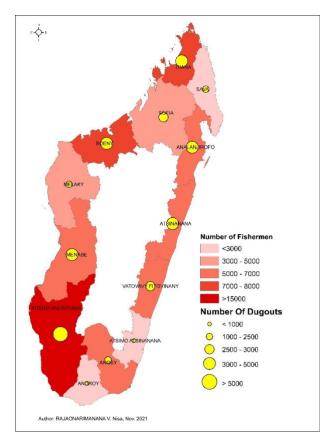
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ANNEX 3: List of stakeholders (Fisheries Operator)

Name	Fonction	Organisation et Institutions	Contact
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ANNEX 4: Number of fishermen, dugouts and used gears





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