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United Nations

Legal report on the ecosystem approach to fisheries in Madagascar

An analysis of the ecosystem approach to fisheries in selected
national policy and legal instruments of Madagascar

FAO EAF-Nansen Programme Report No. 50
EAF-N/PR/50 (En)

A decorative graphic at the bottom of the page consisting of several thick, wavy blue lines that resemble ocean waves. Scattered throughout these waves are several small, solid blue circles, which represent fish or bubbles.

PROGRAMME REPORT

THE EAF-NANSEN PROGRAMME

The EAF-Nansen Programme “Supporting the Application of the Ecosystem Approach to Fisheries Management considering Climate and Pollution Impacts” supports partner countries and regional organizations in Africa and the Bay of Bengal improving their capacity for the sustainable management of their fisheries and other uses of marine and coastal resources through the implementation of the Ecosystem Approach to Fisheries (EAF), taking into consideration the impacts of the climate and pollution.

The Programme is executed by the Food and Agriculture Organization of the United Nations (FAO) in close collaboration with the Institute of Marine Research (IMR) of Bergen, Norway, and funded by the Norwegian Agency for Development Cooperation (Norad). This Programme is the current phase of the Nansen Programme which started in 1975.

The aim of the Programme is that sustainable fisheries improve food and nutrition security for people in partner countries. It builds on three pillars, Science, Fisheries Management, and Capacity Development, and supports partner countries to produce relevant and timely evidence-based advice for management, to manage fisheries according to the EAF principles and to further develop their human and organizational capacity to manage fisheries sustainably. In line with the EAF principles, the Programme adopts a broad scope, taking into consideration a wide range of impacts of human activities and natural processes on marine resources and ecosystems including fisheries, pollution, climate variability and change.

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The Programme works in partnership with countries, regional organizations, other UN agencies as well as other partner projects and institutions.

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By Julia N. Nakamura and Teresa Amador

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Abstract

Legislating for an ecosystem approach to fisheries (EAF) is complex, due to the holistic nature of EAF involving multiple factors that underpin the social, economic, environmental, and institutional aspects of fisheries sustainability. These factors include ecosystems integration, risks, inter-sectoral collaboration, research, participatory processes, monitoring, control, surveillance, and enforcement, among others. To assess how an EAF is being implemented through national policy and legal frameworks, FAO developed [*A diagnostic tool for implementing an ecosystem approach to fisheries through national policy and legal frameworks*](#).

The present legal report on the EAF used the diagnostic tool to assess the alignment of selected policy and legal instruments of Madagascar with an EAF. This assessment analysed the extent to which 82 EAF legal requirements, which are considered the minimum standards in legislating for an EAF, are reflected in Madagascar's policies and legislation relevant to the fisheries sector of the country and other relevant sectors (such as environment, wildlife, ecosystems, and maritime affairs). Based on this preliminary diagnosis, gaps were identified in the assessed instruments, and recommendations were made for improving the implementation of an EAF.

This report was elaborated following a participatory approach with the involvement of the national competent authorities of Madagascar. Drafted in July 2021, the report was submitted to the national authorities of Madagascar in October 2021. The Ministry of Fishery and Blue Economy endorsed this EAF Legal Report of Madagascar in May 2022.

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The initial draft of this EAF Legal Report was prepared by Julia Nakamura, under the supervision, counsel and technical input of Pio Manoa, and extensively reviewed by Teresa Amador. Further improvements were made through the inputs and comments collected from participants in an FAO internal online mock-training in April 2020, in which the methodology and scope were clarified. Appreciation is extended to Blaise Kuemlangan, Buba Bojang and Minmin Lei of LEGN, Merete Tandstad of NFIFM, the participants of the mock-training, and all other FAO colleagues who supported the development of this EAF Legal Report.

We are also grateful to the delegates of Madagascar for their participation in the *Fourth Online regional workshop on the use of the Diagnostic Tool on Implementing an EAF through policy and legal frameworks* (22–25 February 2021), and for providing additional information relevant to the present assessment.

Abbreviations and acronyms

EAF	ecosystem approach to fisheries
EIA	environmental impact assessment
FAO	Food and Agriculture Organization of the United Nations
FMP	fishery management plan
IMO	International Maritime Organization
IUU	illegal, unreported and unregulated (fishing)
LMFA	locally managed fisheries area (in Madagascar)
MCSE	monitoring, control, surveillance and enforcement
MPA	marine protected area
NGO	non-governmental organization
RFMO/A	regional fisheries management organization and/or arrangement
SSF	small-scale fisheries
TAC	total allowable catch
VMS	vessel monitoring system

1. Introduction: legislating for an ecosystem approach to fisheries

The Food and Agriculture Organization of the United Nations (FAO) has promoted the implementation of the ecosystem approach to fisheries (EAF) through various activities conducted over the last decades (FAO, 2019), many of which under the EAF-Nansen Programme (FAO, n.d). Among the many ways or processes through which the EAF can be implemented is the review of national policies and/or legislation, which provides a country the opportunity to reassess its respective policy and legal frameworks, identify the gaps and/or needs for improvement, and present recommendations for enacting new policy and/or legal instruments for an EAF, and/or amending the existing ones so that they are appropriately aligned with an EAF.

FAO's initiative to promote legislating for an EAF has been undertaken through the development of studies, guidance materials and tools (Skonhofs, 2011; FAO, n.d-b; FAO, 2016; FAO, 2021a; FAO, 2021b; FAO, 2021c; FAO, 2021d; FAO, 2021e).

1.1 A diagnostic tool for implementing an ecosystem approach to fisheries through national policy and legal frameworks

The latest material developed by FAO for the implementation of an EAF through national policy and legal frameworks, published in 2021, is [*A diagnostic tool for implementing an ecosystem approach to fisheries through national policy and legal frameworks*](#) (hereafter referred to as "EAF Legal Diagnostic Tool" (FAO, 2021a; FAO, 2021b; FAO, 2021c). This tool, which constitutes the basis for the development of the present report, provides important information about the EAF and should be read together with this report. Such relevant information includes a non-exhaustive list of international legal instruments that support an EAF (Appendix A of the EAF Legal Diagnostic Tool), and a non-exhaustive list of examples of selected national policy and legal instruments relevant for an EAF (Appendix B of the EAF Legal Diagnostic Tool).

The Appendix C of the EAF Legal Diagnostic Tool provides the EAF Legal Checklist for Assessment and Implementation of the EAF Policy and Legal Frameworks (hereafter referred to as "EAF Legal Checklist"), based on which the level of alignment of a country's policy and/or legal frameworks with an EAF and the 17 EAF Components can be assessed (FAO, 2016).

1.2 International legally binding instruments and non-legally-binding instruments relevant to an ecosystem approach to fisheries

There are several international legally binding and non-legally-binding instruments that provide for an EAF. The Appendix A of the EAF Legal Diagnostic Tool highlights, in a non-exhaustive list, selected provisions of international instruments or decisions relevant for an

EAF. Other legally binding instruments in support of an EAF are the applicable conservation and management measures of regional fisheries management organizations/arrangements (RFMO/As) which should also be taken into account, on a country-by-country basis, in the assessment of a given country’s EAF commitments.

It should further be noted that provisions of international non-legally-binding instruments that reflect principles of international law are also legally binding and therefore relevant in the analysis of the national policy and legal frameworks.

States which are a party to multilateral conventions or agreements, as well as States which adopt or endorse international non-legally-binding instruments that reflect principles of international law have the duty to align their national policy and legal frameworks with the obligations that derive from such international and regional instruments.

In light of these considerations, Table 1 below provides the present status of Madagascar in respect to the EAF’s relevant international legally binding instruments selected from Appendix A of the EAF Legal Diagnostic Tool.

Table 1. Status of Madagascar in selected international legally binding instruments relevant to an EAF	
Instrument	Status
1971 Ramsar Convention on Wetlands of International Importance (Ramsar Convention)	Party
1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora	Party
1979 Convention on the Conservation of Migratory Species of Wild Animals	Party
1982 United Nations Convention on the Law of the Sea	Party
1992 Convention on Biological Diversity	Party
1993 Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (Compliance Agreement)	Party
1995 United Nations Agreement for the Implementation of the Provisions of the LOSC relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA)	Not a Party
2009 Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (PSMA)	Party

Note: In accordance with the information provided in the secretariats of the international conventions and agreements as of May 2022.

For the international legally binding instruments that Madagascar **is a Party**, and to the non-binding instruments that Madagascar has endorsed or adopted, it is important to ensure that the relevant provisions of an EAF highlighted in Appendix A of the EAF Legal Diagnostic Tool are properly reflected in the national policy and legal frameworks.

With regard to the 1995 UNFSA that Madagascar is **not yet a Party**, it is important to identify and analyse the reasons preventing the country’s consent to be bound by such instruments and raise awareness to the importance of the international fisheries governance framework. Such analysis is however beyond the scope of this report.

2. Legal report on the ecosystem approach to fisheries: assessing a country's policy and legal framework

The EAF Legal Diagnostic Tool was the main tool used for the preparation of this report (hereafter referred to as the “EAF Legal Report”). Selected national policies and legislation were assessed and applied against the EAF Legal Checklist.

This section is divided into two subsections. Subsection 2.1 describes the methodology and scope, including the selection of the national policy and legal instruments relevant for an EAF and the assessment of the EAF legal requirements in such instruments by filling in the EAF Legal Checklist using the symbols under Table 3 below. Subsection 2.2 provides an overview of main findings, highlighting some specific parts of the policy instruments and legal provisions identified as good practice in legislating for or addressing an EAF.

2.1 Methodology and scope

Understanding the complexities, detail and broad range of matters that an EAF comprises is a challenge due to *inter alia* its holistic nature and the context and priorities of each country. A simplified assessment methodology was therefore developed for the application of the EAF Legal Checklist against the selected national policy and legal instruments, leading to the compilation of this report.

This desk-based preliminary assessment cannot however replace an in-country detailed assessment of the national policy and legal frameworks.

2.1.1 Selection and collection of national policy and legal instruments of Madagascar

The main source for the selection and collection of national policies and legal instruments was FAOLEX (FAO, n.d-b) which, besides the Constitutions of countries, provides a vast electronic repository of national policy and legal instruments on fisheries and other sectors relevant for an EAF, including on environment, sea, water, and wild species and ecosystems.¹

The relevant information for an EAF available at FAOLEX is listed under **Appendix A** and identified by a reference letter and number to facilitate their citation in the EAF Legal Checklist provided in **Appendix B** of this report. Appendix A and Appendix B shall therefore be read together.

¹ Notwithstanding the importance of certain cross-sectoral issues such as gender and climate change, these were not considered in this report.

2.1.2 Desk-based stepwise assessment of selected national policy and legal instruments

The selected national policy and legal instruments relevant for an EAF under **Appendix A** of this report were assessed against the EAF Legal Checklist following the steps described in Table 2 below.

Table 2. Summary of the stepwise assessment		
Steps	National policy and legal instruments analysed	Scope
1 st	Fisheries policy: a plan, policy, strategy, action plan, policy chart concerning fisheries, aquaculture, wildlife, sea and/or oceans, sustainable development, management and/or conservation.	Searching for the EAF legal requirements with a focus on the parts of the policy that address the principles, objectives, plans, priorities, recommendations, strategies and actions.
2 nd	Fisheries primary legislation: a fisheries act, code, law, or any other type of instrument implementing the fisheries policy as well as the general law on fisheries, forestry and wildlife providing the legal framework for fishing and fishing related activities. It is the main legal instrument on fisheries, which contains the typical outline and broadly covers the subjects described in subsection 3.1 of the EAF Legal Diagnostic Tool. It should be noted that this typical outline is without prejudice to the particular structure of the fisheries primary legislation of the assessed country.	Searching for the EAF legal requirements in each provision of the fisheries primary legislation.
3 rd	Fisheries secondary legislation implementing or elaborating the fisheries primary legislation: fisheries decree, regulation, order, ordinance which sets out in more detail the requirements of the fisheries primary legislation – concerning e.g. fishing vessel registration, fishing vessel requirements, vessel monitoring system (VMS), fisheries research, fisheries fund, small-scale fisheries.	Searching for the EAF legal requirements not found in the relevant parts of the fisheries policy nor in the provisions of the fisheries primary legislation.
4 th	Other sector's primary legislation: an act, code or law on the relevant sectors of <i>inter alia</i> environment, sea, water, and wildlife species and ecosystems.	Searching for the EAF legal requirements not found in the relevant parts of the fisheries policy nor in the provisions of the fisheries primary and secondary legislation.
5 th	Other sector's secondary legislation: a decree, regulation, order, ordinance regulating the primary legislation of other sectors assessed under step 4.	Searching for the EAF legal requirements not found in the relevant parts of the fisheries policy nor in the provisions of any of the previously assessed legal instruments.

2.1.3 Filling in the Ecosystem Approach to Fisheries Legal Checklist of Madagascar

The EAF Legal Checklist provides the EAF legal requirements structured by the 17 EAF Components, based on a step-wise methodology (FAO, 2021, Subsection 2.2), and in accordance with the typical subjects of a fisheries primary legislation, without prejudice to the particular structure of the fisheries primary legislation of Madagascar (FAO, 2021, Subsection 3.2). In filling it in, priority was given to assessing the EAF legal requirements in the fisheries policies and primary/secondary legislation. In this process, the different symbols presented in Table 3 below were used.

Symbol	Perceived level of alignment with the EAF legal requirement	
✓	Full or sufficient	Part(s) in the assessed fisheries policy or provision(s) in the assessed legislation <u>totally incorporates</u> the EAF legal requirement.
∅	Partial or insufficient	Part(s) in the assessed policy or provision(s) in the assessed legislation <u>partially incorporates</u> the EAF legal requirement. ²
X	None or inexistent	No part in the assessed policy nor provision in the assessed legislation was found that incorporates the EAF legal requirement.
●	Not considered	No assessment was carried out since the EAF legal requirement was fully or sufficiently found in the primary fisheries policy/legislation, or in the primary legislation of other sector.
N/A	Not applicable	The EAF legal requirement is exclusively relevant to fisheries (that is the case of all the EAF legal requirements under Fisheries Management, Monitoring, Control, Surveillance and Enforcement (MCSE) and almost all of those under enforcement processes and sanctions scheme) and therefore not applicable to other sector's legislation.
*	Optional	The EAF legal requirement is considered to have a non-mandatory nature and therefore is not expected to be found in the assessed policy or legal instrument.

The last two columns of the EAF Legal Checklist indicate: **(i)** the parts of the policy instruments and legal provisions where the EAF legal requirement was found; and **(ii)** additional relevant comments and explanatory notes that clarify, where appropriate, nuances in assessing the policy and legal instruments and the rationale for the assessment of partial or insufficient coverage of the EAF legal requirements. It should be noted that these additional comments and explanatory notes will benefit from a more in-depth analysis during the comprehensive review at country level.

The results of this assessment are presented in **Appendix B** of this report which provides the EAF Legal Checklist applied against the selected policies and legislation of Madagascar.

2.1.4 Additional observations

While filling in Appendix B, some parts of the policy framework and some provisions of the legal framework which in some cases are anchored in the Madagascar Constitution of 2010, were considered particularly relevant in incorporating the EAF legal requirements. These parts and legal provisions which, without prejudice to others that may also be relevant, were considered good examples of addressing an EAF (in the case of a policy instrument) or legislating for an EAF (in the case of a legal instrument), have been highlighted in the main findings under subsection 2.2 below as good practice in legislating for an EAF.

² A more in-depth analysis will be required to understand how EAF legal requirements filled in with the ∅ symbol could be fully incorporated in legal and policy instruments or reflect potential contradictions between one legal and/or policy instrument and another. Such analysis goes beyond the scope of this desk-based preliminary assessment.

2.2 Overview and main findings

This subsection provides an overview of the main findings of this desk-based preliminary assessment of the EAF in the selected national policy and legal instruments of **Madagascar** presented under **Appendix B**.

2.2.1 Fisheries policy

The assessed seven fisheries policies correspond to A1 to A7 in Appendix A. They cover **24** of the 82 EAF legal requirements.

The *2016–2020 Programme sectoriel agriculture, élevage, pêche / Plan national d'investissement agricole* [Sectorial Programme on agriculture, livestock and fisheries / National agriculture investment Plan] proposes the following five specific programmes: 1) rational and sustainable use of production areas and resources; 2) sustained improvement in productivity and promotion of competitive productions; 3) contribution to food security and nutritional improvement and risk reduction; 4) improved access to national markets and repositioning of exports; and 5) improving the governance of institutions and strengthening the capacity of actors (Page 24). One of the sub-programmes, under programme 1, provides for the fisheries sector, that the rational and sustainable exploitation of strategic resources will be based on the assessment of stocks, the development policy, the management plan concerted with all stakeholders, the fight against illegal, unreported and unregulated (IUU) fishing and the protection of marine and coastal ecosystems (Page 27). Another sub-programme, under its programme 2, includes various interventions, among which the professionalisation of the sector, through the promotion of 15 000 associations and/or cooperatives, and the development of applied research adapted to the needs of actors and the market on themes such as non-destructive fishing techniques, appropriate technologies for adaptation to climate change and the socioeconomic aspect (Page 33). The Programme also provides for principles and a mechanism for the monitoring, evaluation and inter-institutional coordination of its implementing (Pages 62–67).

The *2015–2019 Plan National de Développement* [National Development Plan] is to be implemented within the framework of an effective decentralization characterized by the transfer of powers and consequent resources to the decentralized territorial communities, the control of land, urban development and the informal economy as levers of development, the networking of economic infrastructures according to a logic of motor spaces and relays and finally the identification of spaces of solidarity centered on local development (Page 55). Within the five axes of this Plan, one is focused on enhancing natural capital and strengthening resilience against disasters risks, which include the specific objective of protecting, conserving and sustainably using natural capital and ecosystems, in line with the Sustainable Development Goal 14 (Page 61). This specific objective aims at, *inter alia*, significantly reducing pollution, managing and enhancing biodiversity in protected areas, combatting the irrational exploitation of natural resources, reinforcing the resilience and adaptation capacity against risks related to climate change and natural disasters (Page 66).

The *2015 Politique Nationale de l'Environnement pour le Développement Durable* [National Environmental Policy for Sustainable Development] aims at, among other objectives, ensuring the sustainable management of terrestrial, aquatic, marine and coastal natural resources as well as their habitats and associated ecosystems (Page 3).³ The policy also highlights the various stakeholders involved in its implementation, which include decentralised territorial communities, community-based organizations, and civil society organizations (Page 7). The programme adopted in 2016, associated with this policy, has two specific strategic objectives, namely: governance for sustainable development; and resilient and prosperous environment (Chapter V). The former includes priority actions such as development of legal instruments and rules for the payment for ecosystem services, pollution, waste, eco-labelling. The latter includes priority actions of, *inter alia*, enhancing the knowledge about the vulnerability levels and key components of biodiversity, including ecosystems and habitats.

The *2015–2025 Stratégie et Plans d'Actions Nationaux sur la Biodiversité* [National Strategy and Plans of Actions on Biodiversity] is founded on various guiding principles, including: maintaining the relationship between the conservation of biodiversity and the economic, social and material and spiritual well-being of the people; preventing biodiversity loss and ecosystem services degradation by conserving biodiversity, rationally using natural resources, and adopting collaborative and participatory approaches; integrating the value of biodiversity and its ecosystem services into all sectors and national planning processes; developing knowledge of natural capital through scientific research, the promotion of research results and the promotion of traditional knowledge; emphasizing the importance of inter-sectorial actions and holistic consideration of factors (Pages 66–67). This Plan has the following five main strategic objectives, for which the respective strategic guidance is provided: to address the underlying causes of biodiversity loss through integration of biodiversity across government and society; to reduce indirect pressures on biodiversity and encouraging sustainable use of natural resources; to enhance the state of biodiversity and safeguard the ecosystems, species and genetic diversity; to reinforce the benefits arising from biodiversity and ecosystem services; and to strengthen the implementation of the Plan through participatory planning, knowledge management and capacity building (Pages 88–91). A detailed plan with the required actions and in charge stakeholders, as well as the timeframe and other details is provided therein (Pages 93–147).

The *2015 Lettre de Politique Bleue* [Blue Policy Letter] aims at ensuring the sustainable management, exploitation and preservation of fishery resources; increasing the productivity and economic contribution of the fisheries sector; improving the food and nutritional security of fishers and fish farmers whilst strengthening their resilience to hazards and disasters; meeting the needs of national fish market and increasing exports; and promoting transparent and responsible governance (Page 10). This Policy follows the principles of, *inter alia*: primarily preserving resources as opposed to their exploitation, including through the application of the precautionary principle; regulated and responsible access to natural resources; good

³ The number of pages can be found in the published version of policy by *Décret n° 2015–1308 du 22/09/2015 fixant la Politique Nationale de l'Environnement pour le Développement Durable*, which is provided at the end of A2.

governance that comprises transparency, decentralization and participation that favours participatory modes of governance such as delegation, co-management or platforms of co-decision (Page 11). It calls for the development of fishery management plans (FMPs) based on an EAF, as well as the preservation and restoration of sensitive aquatic ecosystems and the promotion, implementation and support of co-management areas (Page 12).

The *2015 Lettre de Politique Intersectorielle Agriculture, Elevage et Pêche* [Intersectoral Policy Letter on Agriculture, Livestock and Fisheries] is founded on the principles of sustainability, equity, subsidiarity or decentralization and transparency (Pages 7–9). It provides strategic dimensions for implementing each of its strategic objectives. For instance, the strategic objective of sustainable and rational exploitation of spaces of production and resources involves: integrated management, rational exploitation of fishery resources based on stocks assessments and FMPs with the inclusion of all relevant actors (Page 14). With respect to the preservation and better control of spaces, the Policy draws attention to the need of putting in place environmental impact assessments (EIAs) with regard to each development projects, as part of the measures to better integrate the environmental dimension into production activities (Page 15).

The *2012 Stratégie Nationale de Bonne Gouvernance des Pêches Maritimes à Madagascar* [National Strategy on Good Governance of Maritime Fisheries in Madagascar] follows key principles of good governance, including: transparency for enhancing the functioning of institutions; accountability for combating IUU fishing; coherence and subsidiarity; participation; efficacy and efficiency of public actions (Pages 25–28). This Strategy contains action programmes for improving good governance, namely: promoting the development of FMPs on priority fisheries; strengthening fisheries monitoring and establishing a system of information; depoliticization in fisheries management and reduction of corruption risks; optimization of institutions' functioning, including through capacity building; improving the system of issuance of industrial fishing rights, of harvesting and trade in wholesale in fishery products and improving transparency on industrial and artisanal licensing, including through Monitoring, Control and Surveillance (MCS) and enforcement; combatting IUU fishing; implementing traditional modalities compatible with fisheries management; increasing and improving the domestic wealth generated by the fisheries sector (Pages 28–41). This Strategy also proposes specific management measures, including limitation of number of licences issued, delimitation of authorised fishing zones, for priority fisheries of coastal shrimp, sea cucumber, octopus, mangrove crabs, lobster and sharks (Pages 54–56).

2.2.2 Fisheries primary legislation

The assessed fisheries primary legislation corresponds to B1 in Appendix A, and covers **33** of the 82 EAF legal requirements.

The fisheries primary legislation is the *2015 Loi n° 2015–053 portant Code de la pêche et de l'aquaculture* [Fisheries and Aquaculture Code] (hereinafter referred to as the “Fisheries Code”). This Code aims at the sustainable governance and management of fishery resources for preserving aquatic ecosystems and protecting biodiversity of the Malagasy waters and in

the high seas for straddling stocks, as well as increasing the contribution of the fisheries sector to food and nutritional security and economic and social development for the well-being of current and future generations (Article 2). It requires the State to define a strategy to protect fishery resources and facilitate their sustainable exploitation with a view to maintain the balance of aquatic ecosystems and habitats (Article 4). For the management of shared fishery resources the Code requires cooperation with regional fisheries management organizations and within the framework of international agreements ratified by Madagascar, in particular the harmonization of management and development systems, the coordination with regard to monitoring and control of fishing vessel activities and the conditions of access to fishery resources in neighbouring countries (Article 5). The Code also requires Madagascar to cooperate with neighbouring states which share the high seas in the conservation and management of fishery resources and the aquatic ecosystems (Article 11).

The Fisheries Code creates, within the government authority in charge of fisheries, an advisory council for fisheries management, an advisory commission for the issuance of fishing authorizations and licences, and an advisory body for the local and participatory management of small-scale fisheries (SSF) – the organisational and operational structure and conditions of these bodies, as well as their mission, is to be defined by regulation (Article 7). The Ministry in charge of fisheries and aquaculture is responsible for, *inter alia*: taking measures to prevent overexploitation and ensure that the fishing effort is proportional to the productive capacity of fishery resources and their sustainable use; encouraging applied scientific research and data collection for improving scientific and technical knowledge of fisheries and their interactions with the ecosystem; applying the precautionary approach and the ecosystem approach; ensuring that activities likely to affect the preservation, management and sustainable use of fishery resources are subject to an EIA; and protecting the interests of subsistence, artisanal and SSF (Article 9(b)(d)–(f)(i)(j)).

The Fisheries Code fosters fisheries and aquatic ecosystems community-based governance and the local management of SSF (Article 14). It prohibits the uses of, among others, toxic substances or baits in fishing; explosive materials and similar techniques; electrical processes; any diving device allowing a longer immersion than that authorized by natural breathing alone; any gear, method and fishing technique or destructive and non-selective device; any prohibited fishing gear and explosive substance on board a fishing vessel, on and / or near a fishing site; as well as introducing or discharging into the aquatic environment substances causing pollution (Article 17). It also prohibits the fishing, capture, detention and trade in all endangered and protected species, corals, marine mammals, seabirds, marine and freshwater turtles (Article 18). All activities that may affect the productivity and/or the integrity of fishery resources and aquatic ecosystems are subject to a previous EIA, in accordance with the conditions to be established by regulation (Article 21).

The Fisheries Code provides for the regime of access to fisheries and fishing licensing scheme (Articles 23–49), and subjects the Ministry in charge of fisheries and aquaculture to the obligation of establishing conditions for the creation and registration of national fishing vessels in a register and the organisation of its operation (Article 33). With regards to MCSE, all fishing vessels authorised to operate in national waters and national fishing vessels

authorised to operate beyond these waters are required to permanently keep a fishing logbook with, *inter alia*, the composition of the total catches and accessory species, the statistics on fishing effort and discards and information on transshipment. Transshipment in national waters is prohibited except in ports subject to requirements of use and port entry and landing of fishery products is subject to controls by authorised officers in accordance with the Port State obligations of Madagascar (Article 60). Fishing vessels authorised to fish in national waters, and their gear, are also required to be marked in accordance with FAO rules to facilitate their identification, and to recover the lost fishing gear (Article 58(a)(b)(d)). All licenced national fishing vessels must keep on board a vessel monitoring system (VMS), and in accordance with the requirements to be established by regulations (Article 59). Authorised inspecting officers are granted enforcement powers such as inspecting the fishing vessels, controlling fishing gears, fishing logbooks, examining documents, among others (Article 68). Administrative process is provided therein, including the possibility of compounding the offence through transaction (Articles 79–83). Offences are detailed with their respective sanction scheme, which may be pecuniary sanction and/or imprisonment (Articles 84–96).

2.2.3 Fisheries secondary legislation

The assessed 29 fisheries secondary legislation corresponds to C1 to C29. They cover **28** of the 82 EAF legal requirements.

The 2017 Arrêté n° 29213, *fixant les conditions et modalités d'obtention d'une autorisation d'exportation des produits et des sous-produits de la pêche et de l'aquaculture*, which regulates Décret n° 2017-532 briefly assessed below, requires all natural and legal persons to obtain an authorisation for the export of fisheries and aquaculture products and sub-products, detailing the applicable procedures. This Order was complemented by the 2017 Arrêté n° 29212, *fixant les produits et les sous-produits de la pêche et de l'aquaculture d'origine marine autorisés à être collectés*, which defines the fisheries and aquaculture products and sub-products authorised for collection.

The 2017 Arrêté n° 29211, *fixant les modalités de transfert de gestion des ressources halieutiques et écosystèmes aquatiques*, provides for the delegation of power for the management of fishery resources and aquatic ecosystems from the Ministry in charge of fisheries and aquaculture to members of fishing communities organised as a group and for the Locally Managed Fisheries Area (LMFA), which can be implemented upon request from the fishing communities to the Ministry in charge of fisheries and aquaculture (Article 5). The proceedings include, *inter alia*, the approval of concerned local authorities and validation of the LMFA by the community assembly (Article 7). The fishing community has the right to subject part or the entire LMFA to the payment of relevant ecosystem services, and the respective manager has the duty to conduct activities such as the systematic reforestation of mangroves monitoring of the area by the community, which can be conducted independently or with the support of non-governmental organizations (NGOs) and the Ministry responsible for fisheries and aquaculture (Article 8).

The 2017 Arrêté n° 27786, *fixant les critères exigés pour l'exploitation d'une ferme aquacole de crabes de mangrove (Scylla serrata) à Madagascar* details the criteria for the exploitation of a mangrove shrimps aquaculture establishment. This Order should be read together with other related regulations, namely: the 2014 Arrêté n° 32101, *portant réglementation de l'exploitation des crabes de mangrove (Scylla serrata) de Madagascar, modifié par l'Arrêté n° 37206/2014 et l'Arrêté n° 14096/2016*.

The 2017 Arrêté n° 24390, *portant mise en œuvre du plan d'aménagement concerté des pêcheries pour le Fokontany d'Ampasivelona, Commune Ambodibonara, District d'Ambilobe*, endorses the FMP for fisheries in the said sites, which include both marine and mangrove areas (Article 2). It fixes two objectives, namely, of sustainably exploiting fishery resources and improving the income of the concerned fishing communities; and affirms that the management measures are adopted based on the best available scientific information, adopting the precautionary principle (Article 3). This Order provides specific details on temporal and spatial control, as well as on fishing efforts and TACs. For instance, a marine reserved area is established to preserve coral reefs around the Nosy Mangiho where certain fishing methods are prohibited (Article 5).

The 2017 Arrêté n° 19815, *portant sur la réglementation de la pêche récréative et de la pêche sportive maritime*, details the regulation of recreational fishing and sport fishing.

The 2017 Arrêté n° 14191, *portant mise en œuvre du Plan d'Aménagement des Pêcheries pour les Baies d'Ambaro, de Tsimipaika, d'Ampasindava et l'archipel de Nosy Be (PAP BATAN)*, endorses the FMPs of the said sites, in which there are three marine protected areas (MPAs). The Plan was developed following a participatory approach, with the involvement of various stakeholders, including concerned communities, NGOs and SSF representatives (Article 3). It provides for specific measures for the preservation of aquatic ecosystems and sensitive habitats, including awareness raising on the regulatory framework, protection of seagrass areas and the establishment and protection of nursery and spawning areas reservation of aquatic ecosystems and sensitive habitats (Article 11). In addition to detailing spatial and temporal controls, fishing gears and fishing effort requirements, this Order provides that social conflict between resident fishers and migrant fishers are to be regulated between belligerents and the local authorities (Article 24).

The 2017 Arrêté n° 11907, *portant modification de l'arrêté n°37069/2014 portant définition du plan d'aménagement concerté des pêcheries de la baie d'Antongil*, endorses the FMPs of the said site. It sets out three specific objectives: environmental preservation to ensure sustainability of ecosystem services and rehabilitation of fishery resources; sustainable exploitation of fishery resources, increasing the standard of living of coastal populations whilst improving the profitability of fishing activities; and fairer distribution of wealth generated by the fisheries sector, improving the share of the local population in relation to the interests of the municipal, regional and national economy (Article 4). It also provides spatial and temporal controls as well as restrictions on fishing efforts and fishing gears (Articles 6–12) and for co-management and transfer of management (Articles 14–17).

The 2017 Décret n° 532, portant organisation générale des activités de commercialisation et de la valorisation des produits de la pêche et de l'aquaculture, regulates Articles 50–55 of the Fisheries Code concerning the activities of trade and processing of fisheries and aquaculture products.

The 2016 Arrêté n° 23283, portant officialisation du plan d'aménagement concerté des pêcheries maritimes de la Région Melaky ainsi que des modalités prises pour sa mise en œuvre, endorses the FMPs of the said site. It has similar provisions to the FMP for the baie d'Antongil with respect to locally managed areas, MPAs, and fisheries management requirements and control.

The 2016 Arrêté n° 10772, portant suspension de toutes activités sur l'exploitation des trépangs (holothurie, concombre de mer, bêche de mer), imposes a ban on fishing, collecting, trading, transporting and exporting of all forms of sea cucumber.

The 2016 Décret n° 1493, portant réglementation des activités d'aquaculture, implements Article 102 of the Fisheries Code, detailing the rules for aquaculture.

The 2016 Décret n° 1492, portant réorganisation générale des activités de pêche maritime, defines the principles and guidance fixed by the Fisheries Code (Article 1). It requires all small-scale fishing vessels to be registered (Article 6). It also provides detailed requirements for the fishing licensing scheme with respect to the procedures, renewal, transferability, and specific conditions for certain types of fishing vessels, including the authorisation regime for foreign industrial fishing vessels (Articles 8–29).

The 2014 Arrêté ministériel n° 21816, portant interdiction de l'exploitation des corail noir (*antipatharia sp.*) au niveau national, prohibits all forms of exploitation, including harvesting, collecting, conserving, transporting and trading of black corals at national level (Article 1). It grants the fisheries surveillance centre, with the concerned authorities, with the power to investigate any offence to its provisions (Article 2).

The 2014 Arrêté n° 12666, portant réglementation sur la conservation des tortues marines capturées par les pêcheries, applies to all longliner fishing vessels flying the Malagasy flag operating in the EEZ of Madagascar, in the EEZ of a third country or in international waters (Article 1) and requires the captain of the fishing vessel to bring on board, as soon as possible, any marine turtle caught or inanimate or inactive during the fishing operation, and do everything possible, including reviving it and putting it back to water (Article 2).

The 2014 Arrêté n° 12665, portant réglementation sur la conservation des requins-renards (famille des *Alopiidae*) capturés par les pêcheries, prohibits all fishing vessels from conserving on board, transshipping, landing, keeping or trading the entire or parts of thresher sharks species *Allopiidae*.

The *2012 Décret n° 771, portant création du Centre de Développement de l'Aquaculture*, creates the Aquaculture Development Center, with the mission of, *inter alia*, contributing to the aquaculture sustainable development (Article 3).

The *2012 Décret n° 768, portant création de l'Observatoire Economique de la Pêche et de l'Aquaculture*, creates the Economic Observatory of Fisheries and Aquaculture, as a mechanism that allows actors of the fisheries and aquaculture sector to make optimal decisions on the management of the sector; be the depositary of economic data for such sector, in compliance with the confidentiality clause for the individual data of economic operators in the sector; provide reflections and economic studies of the sectors at the level of the sector; analyse changes in key strategic economic indicators of the sectors at the sector level; and support the Ministry responsible for fisheries in determining the annual fees resulting from the exploitation of the shrimp industry (Article 2).

Other regulations provide requirements for specific types of fisheries or types of fishing, namely: the *2008 Arrêté n° 16953, fixant les règles applicables à la corde de dos des chaluts utilisés par les navires de pêche industrielle et artisanale des crevettes côtières* (with respect to back rope of trawls in coastal shrimp); the *2008 Arrêté n° 16952, établissant les modalités administratives de gestion des droits de pêche industrielle et artisanale des crevettes côtières* (with respect to managing access rights to coastal shrimp); the *2007 Décret n° 957 portant définition des conditions d'exercice de la pêche des crevettes côtières* (with respect to licensing conditions for coastal shrimp); the *2006 Arrêté n° 18679, fixant les types d'engins autorisés pour la pêche traditionnelle crevettière dans la zone comprise entre le cap St Sébastien au Nord et la pointe d'Angadoka au Sud* (with respect to certain authorised fishinggears for traditional shrimp fishing in the said site); the *2003 Décret n° 1101, réglementant l'exercice de la pêche par chalutage, dans la mer territoriale malgache* (with respect to trawl fishing in Malagasy waters); the *2002 Arrêté n° 1612, fixant les mesures relatives à la pêche en eau profonde* (with respect to deep-sea fishing).

On institutional arrangements, the *2005 Décret n° 376, portant création de l'Agence Malgache de la Pêche et de l'Aquaculture*, creates the Malagasy Agency of Fisheries and Aquaculture, whose mission includes: contributing to the sustainable development of the fisheries and aquaculture sector by financing activities and implementing sectoral policies; promoting, supporting and coordinating associations and professional bodies in the sector; and promoting the preservation of marine and freshwater resources and their rational management, in particular by supporting the actions of the Fisheries Monitoring Center (Article 2). The *2003 Décret n° 076, fixant les attributions du Ministre de l'agriculture, de l'élevage et de la pêche ainsi que l'organisation générale de son ministère*, provides for the organization and structure of the Ministry in charge of agriculture, livestock and fisheries. The *2002 Décret n° 412, fixant les attributions du Secrétaire d'Etat à la pêche et aux ressources halieutiques, ainsi que l'organisation générale de son département, modifié par Décret n° 2002-825*, regulates the organization and functioning of the Secretary of the State responsible for fisheries and fishery resources.

The 2002 Arrêté n° 1613, portant adoption d'un système de suivi satellitaire à bord de tout navire opérant dans le secteur de la pêche, details the form and modalities of transmitting data to the Centres of fisheries surveillance. It requires, for instance, the transmission of information concerning the identification of the vessel, date and hour of transmission, latitude, longitude, speed and course of the vessel (Annex).

2.2.4 Other sectors primary legislation

The other sectors primary legislation corresponds to D1 to D8 in Appendix A.

The Madagascar's Constitution of 2010 provides that framework laws will fix the objectives of the State in environmental matters (Article 91 of the Constitution). Accordingly, the 2015 Loi n° 003, portant Charte de l'Environnement Malagasy actualisée (hereinafter referred to as 'Environmental Law') establishes the rules and fundamental principles for environmental management (Article 1). It aims at, *inter alia*, sustainable and equitable development through a green economy; monitoring and evaluating system for any action relating to environmental projects; promoting environmental quality; and setting up sustainable financing mechanisms for environmental actions (Article 3). General principles include prioritizing the environment, recognizing as a general interest the environmental management, protection, conservation, enhancement, restoration and respect for the environment, based on State's effective environmental management and implementation of the environmental policy, international cooperation, and internalization of environmental issues at all levels and by all sectors (Article 5). This Law affirms the fundamental right of all persons to live in a healthy and balanced environment (Article 6), as well as their duty to take part in environmental management through protection, conservation, enhancement and restoration (Article 8). The State and any natural or legal person have the obligation to take adequate measures to counter any damage that could seriously and irreversibly affect the environment, taking into account current scientific and technical knowledge and the precautionary principle (Article 11).

The Environmental Law requires an EIA for public or private investment projects, whether or not they are subject to authorization or approval from an administrative authority, or whether they are likely to harm the environment in accordance with the rules and procedures of the Decree on the compatibility of investments with the environment which shall also specify the nature and attributions of the competent authorities (Article 13), briefly assessed below.

It also ensures, through the principle of public participation, every citizen's access to environmental information, including information on hazardous substances and activities, allowing the public to be involved in the relevant decision-making processes (Article 14). The State, the Decentralized Territorial Collectivities with the support of the municipalities and Fokonolona, civil society, local communities, the private sector and all citizens, are responsible for, *inter alia*: restoring degraded ecological habitats; promoting the conservation of existing and future Protected Areas through the System of Protected Areas of Madagascar for the preservation of biodiversity and Malagasy heritage; ensuring the integrated and sustainable management of water resources; effectively managing the various sources of pollution and nuisances by establishment of an environmental compliance and monitoring structure;

developing research that is the base of knowledge useful for decision-making in environmental management (Article 19).

The *2015 Loi n° 005, portant refonte du Code de Gestion des Aires Protégées* [Protected Areas Management Code] defines the various types of protected areas, which include fully protected natural reserves, national parks, natural parks, natural monuments, special reserves, balanced protected landscape, natural resources reserve (Article 2). Its objectives include conserving all of Madagascar's biodiversity, in particular ecosystems, species and genetic variability; enhancing biodiversity through research; and maintaining ecological services and the sustainable use of natural resources for poverty reduction (Article 5). The System of Protected Areas is guided by, *inter alia*, the systematic adoption of procedures of consultation and liaison with the various relevant parties for the creation, management and declassification of a protected area; and co-management (Article 6). This Code also provides for the participation of affected communities in the proceedings for establishing a protected area, being it in the determination of safeguarding measures or in the implementation and monitoring of respective activities (Article 48). The roles, exercise of economic, cultural and traditional activities conducted by the communities within the management of protected areas, and the rights they are entitled to as well as the modalities of participation and co-management are described in a communitarian management convention (Article 49).

The *2003 Loi n° 025 portant statuts des ports* [Statutes of Ports Law] provides the general rules for, *inter alia*, the management, classification and exploitation of ports. It requires all port investment projects relating to the construction, rehabilitation or work that require the use of materials, to be subject to an EIA and the applicable procedures (Article 50).

The *2000 Loi n° 028, portant refonte du Code maritime* [Maritime Code] sets up the limits of national jurisdiction (Chapter 3) and promotes inter-States cooperation with a view to protect marine mammals, including through international organizations for their protection and research (Article 1.9.01). Cooperation with other States is also fostered for the management of anadromous species, catadromous species, and species which straddle between other States maritime zones (Articles 1.9.02–1.9.04). It also provides general requirements for the State's duty to protect and preserve the marine environment against pollution and other negative impacts (Articles 1.10.01–1.10.14). It establishes rules on the nationality of vessels (Article 1.4.0.6) and requires all fishing vessels to be register with the maritime authority (Articles 2.1.04–2.4.04).

The *1999 Loi n° 029, portant Code de l'eau* [Water Code] requires, *inter alia*, any natural or legal person, public or private, carrying out an activity that is a source of pollution or that may threaten water resources and environmental hygiene to consider any appropriate measure to curb or prevent the observed threat, being liable to payment of a compensation in the event of non-compliance with such rules (Article 12). Any undertakings, structures or works, carried out by public or private persons, must be preceded by a public hearing and an EIA, due to their potential to impact the environment and disturb aquatic ecosystems (Article 23).

The *1999 Loi n° 021, sur la politique de gestion et de contrôle des pollutions industrielles*, defines the general framework for the policy on sustainable development and control of industrial pollution, pursuant to the Environmental Law, briefly assessed above, and in particular its provisions on the Environmental Action plan (Article 1). It describes the environment as the collection of natural or man-made environments, including human environments and the social and cultural factors that determine them, as well as the biotic and abiotic elements of nature (Article 3). It also requires the State, through the Ministry in charge of industry in close collaboration with the competent environmental authorities, to assume responsibilities of, *inter alia*: cohesion, consistency and coordination of the legislation on the industrial environment applicable throughout the national territory, taking into account the specificities of each region and particularly sensitive areas; and legislative or regulatory measures, emergency and immediate relief measures and protective measures for the safeguard and protection of people, property of all kinds and the natural environment in the event of environmental disasters and accident (Article 18). The issuance of an authorisation for operating industries is subject to prior public hearing and EIA (Article 61).

In line with the constitutional provision that requires the Decentralized Territorial Collectivities to ensure, with the participation of the State, the preservation of the environment (Article 141 of the Constitution), the *1996 Loi n° 025, relative à la gestion locale des ressources naturelles renouvelables*, provides for the local management of renewable natural resources. The competent administrative authority transfers the management to the community-base through an agreement (Article 4). The request is examined with an on-site investigation carried out by the local municipality in collaboration with the technical competent services and members of the grassroots communities involved (Article 12). The Law also provides for an environmental mediation with the objective of facilitating discussions and negotiations between the various partners in the local management of natural resources; and helping them to understand their respective points of view on natural resources; develop a certain common vision for the long-term future of these resources; build common strategies for managing these resources; and define procedures allowing their effective management, in common good, on the basis of this vision and these common strategies (Article 17).

The *1960 Ordonnance n° 126 fixant le régime de la chasse, de la pêche et de la protection de la faune*, establishes, among other matters, the prohibition of hunting and capturing protected animals (Article 2), as well as their transport, trade and export, except with authorisation (Article 48).

2.2.5 Other sectors secondary legislation

The other sectors secondary legislation corresponds to E1 to E11 in Appendix A.

The 2017 Décret n° 1106, portant création, organisation et fonctionnement du Comité Interministériel de l'Environnement, provides for the organization of the Inter-ministerial Environmental Committee, which is in charge of, *inter alia*: assisting the Chief of Government in decision-making relevant for the environmental policy; contributing to the integration of the environmental dimension in the sectorial policies, strategies, plans and programmes; and

ensuring inter-ministerial coordination for aligning a common environmental sustainable development vision that benefits all sectors and the Decentralized Territorial Collectivities (Article 2). This Committee, chaired by the Minister responsible for the Environment on behalf of the Prime Minister is composed of more than twenty Ministries, including those in charge of the environment and forestry, water, agriculture, fisheries, decentralization, scientific research, energy and education (Article 3).

The *2015 Décret n° 629, portant création d'une Commission Nationale de Gestion Intégrée des Mangroves*, creates the National Commission for the Integrated Management of Mangroves (Article 1), with the mission of ensuring the sustainable management of mangroves and examining all aspects concerning this management (Article 2). It is composed by representatives of various stakeholders, including Ministries in charge of the environment, ecology, seas, forestry, fishery resources and fisheries; scientific research centres, associations of aquaculture and shrimp fisheries, and local communities (Article 3).

The *2013 Décret n° 880, fixant la Politique Nationale de l'Education relative à l'Environnement pour le Développement Durable*, fixes the National Policy on Environmental Education for Sustainable Development, which has the objective of mobilizing environmental awareness of the population; promoting national respect for life and the environment; establishing the concept of national solidarity without which Madagascar could not find the happiness of living together; instilling respect for difference and hence respect for others and for oneself; and encouraging each citizen to include the concept of sustainable development and rational management of resources in both professional activities and in daily life (Annex).

The *2010 Arrêté interministériel n° 52004, portant création, organisation et fonctionnement de la Commission du Système des Aires Protégées de Madagascar*, creates and regulates the Commission of the Protected Areas System of Madagascar (Article 1). This Commission is in charge of, *inter alia*, supporting the General Directory of Forestry in the implementation of Madagascar's international commitment to tripling the surface area of protected areas until 2012 and supporting the regional directorates responsible for the environment and forests in the process of setting up new protected areas; and ensuring the convergence of national and local interests in matters of conservation and development (Article 2). It can call upon the collaboration of the ad hoc committee within the ministerial departments concerned, including the Fisheries Environment Commission, and also rely on existing bodies dealing with the creation and management of Protected Areas (Article 4).

The *2010 Décret n° 137, portant réglementation de la gestion intégrée des zones côtières et marines de Madagascar*, regulates the integrated coastal zone management of coastal and marine areas, with the following objectives: improving governance processes by making them more equitable, transparent and dynamic, by and for the benefit of communities and the nation; improving the economy, health and quality of life of the inhabitants of a given area; improving environmental quality, in order to ensure the maintenance or restoration, promotion of economic, social and ecological, as well as the productivity of a given area; and ensuring the conservation of the ecological integrity of coastal ecosystems with the view to taking them into account in any development project and development (Article 5). All works

and projects, public or private, as well as the plans and programs which could seriously harm the environment of these zones, must be subjected to an EIA before the issuance of the respective authorization (Article 12). This Decree also establishes the National Committee for the Integrated Management of Coastal Zones (Article 23), which is charge of ensuring effective coordination among maritime and land authorities of various concerned sectors at regional and local levels, regrouping the local and regional entities for reinforcing the coherence and efficacy of strategies, plans and programmes in place, and organizing and coordinating the activities conducted by central authorities with those carried out by regional and local authorities in the implementation of strategies, plans and programmes for developing marine and coastal zones (Article 31).

The *2007 Arrêté Interministériel n° 13 802-MINENVEF/MDM/MDE/M, portant création, fonctionnement et organisation du Comité d'orientation et d'évaluation au sein de chaque nouvelle aire protégée en voie de création*, establishes a Committee for the monitoring and evaluation within each new protected area (Article 1). The Committee is a body of consultation and reflection (Article 2). Also relevant for the regulation of protected areas is the *2005 Décret n° 848 appliquant les articles 2 alinéa 2, 4, 17, 20 et 28 de la 2001 Loi n° 005 portant Code de gestion des aires protégées*, which details the requirements for the creation of new protected areas which are integrated into the National Network of Protected Areas (Article 1). It requires the creation of any protected areas to be subject to a prior EIA (Article 13) and a consultative participatory process with the involvement of affected local communities (Articles 16–17). Another relevant related regulation is the *1997 Arrêté interministériel n° 4355, portant définition et délimitation des zones sensibles*, which delineates the limits of sensitive zones.

Two laws examined in the previous subsection have specific regulatory instruments, namely, the *2000 Décret n° 027, relatif aux communautés de base chargées de la gestion locale de ressources naturelles renouvelables*, which regulates and details the structure and functioning of the community-base management by local communities, as provided by the *1996 Loi n° 025*; and the *1961 Décret n° 093 portant application de le 1960 Ordonnance n° 126 fixant le régime de la chasse, de la pêche et de la protection de la faune*, which regulates the Law concerning the regime of hunting, fisheries and fauna protection.

The *1999 Décret n° 99-954 relatif à la mise en compatibilité des investissements avec l'environnement*, as modified in 2004, concerns the rules for aligning investments with environmental issues and provided the rules and procedures for the EIA. For instance, it provides that the investment projects, public or private, listed in its Annex II (which include an increase in fishing effort in marine areas by type of resource), are subject to an Environmental Engagement Programme, according to the results of a prior "screening" undertaken by the National Environmental Office on the basis of a brief description of the project (Article 5 and Annex II).

3. Conclusion

3.1 Main gaps in the assessed policy and legal instruments

Some of the EAF legal requirements in the EAF Legal Checklist in **Appendix B** were not incorporated (X) or were only partially incorporated (Ø) by the assessed policy and legal instruments of Madagascar identified under **Appendix A**. This subsection summarizes the main gaps from the desk-based preliminary assessment without prejudice to others that may be identified in a comprehensive analysis of the national policy and legal frameworks at country level.

Of the 82 EAF legal requirements, **57** EAF legal requirements were found in Madagascar's policy and legal frameworks assessed in this EAF Legal Report. It should be noted that the 82 EAF legal requirements are considered the minimum standards in legislating for an EAF which may be further elaborated and improved in advancing the implementation of an EAF. Based on the present preliminary assessment, **25** EAF legal requirements remain to be incorporated in the policy and legal frameworks of Madagascar.

The assessed policy and legal instruments did not clearly define nor apply the precautionary approach, as required under EAF Component 3, nor did they provide for the well-publicized public hearings, as required under EAF Component 4. The assessed instrument also did not provide for periodic review of conflict management over fisheries, as required under EAF Component 7. There was also lack of references and provisions on review of integrated management of aquatic ecosystems, which corresponds to EAF Component 8.

Major gaps were found with respect to TAC, additional catch limits and detailed requirements, as well as on specific details on fishing licensing scheme and consultation in the establishment of temporal and spatial controls, as provided under EAF Component 9. There are also improvements to be made with regard to FMPs, which lack provisions on the minimum requirements of FMPs, as provided under EAF Component 10.

With regard to MCSE, which is of particular relevance to the fisheries sector, the assessed policy and legal instruments do not establish an observers scheme. The details of the register of fishing vessels and the requirements on cooperation and coordination among fisheries and maritime authorities in the registration process were not found, nor specifications on VMS, as part of the legal requirements under the EAF Component 11. Judicial processes were not detailed in the assessed policy and legal instruments as well, which is a requirement under EAF Component 12.

Ecosystem-based research was another gap in the assessed policy and legal instruments, indicating misalignment with EAF Component 13. No provisions were found on the mechanisms for the designation of endangered and threatened species, pursuant to EAF Component 14. Details on EIA component and its process were not found as well, as required under EAF Component 16.

3.2 Level of alignment of the assessed policy and legal instruments with an ecosystem approach to fisheries

In determining the level of alignment of the assessed policy and legal instruments with an EAF in the EAF Legal Report, the following criteria were used:

Number of EAF legal requirements incorporated in the assessed policy and legal instruments	Percentage of the 82 EAF legal requirements incorporated	Overall level of alignment with an EAF
0 - 30	0 - 36%	Low
31 - 50	37 - 61%	Low-medium
51 - 61	62 - 75%	Medium
62 - 72	76 - 87%	Medium-high
73 - 82	88 - 100%	High

The policy and legal instruments of Madagascar, assessed in this Report, incorporate **57** out of the 82 EAF legal requirements, therefore indicating a **medium** level of alignment with an EAF.

3.3 Final considerations and proposed way forward

Legislating for an EAF is complex and challenging. Due to the numerous national policy and legal instruments relevant to the EAF, this EAF Legal Report should be considered as a desk-based preliminary assessment. It provides the initial basis upon which countries can advance the work towards improving their national policy and legal frameworks in alignment with an EAF, contributing to the ultimate goal of sustainability in fisheries.

The incorporation in the national policy and legal frameworks of all the EAF relevant provisions from international legally binding instruments to which Madagascar is a Party, as identified under subsection 1.2 above, should be a priority in the improvement of the EAF implementation at the national level. The relevant EAF provisions from the international non-binding instruments that reflect principles of international law should also be incorporated in the national policy and legal frameworks.

With respect to the assessed policy and legal instruments, some gaps have been identified which should be addressed to ensure full implementation of an EAF in the country. The following subjects could benefit from a detailed review and update in the relevant policy and legal instruments: “institutional arrangements” (especially review of processes of conflict management and integrated management of aquatic ecosystems), “control on fishing operations” (especially TACs and consultative process), “fisheries management” (particularly aspects of integrated management of ecosystems), “research”, “conservation measures” (especially processes for designating threatened species, regulation of ghost fishing), and

“MCSE” (especially the observers scheme, detailed recording information, registration process, cooperation and coordination on registration, and VMS requirements).

The review of the policy and legal instruments with respect to “control on fishing operations”, “fisheries management” and “MCSE” could be led by fisheries whereas others, such as “institutional arrangements”, “research” and “conservation measures”, would require a more active involvement of other sectors in the review of their transversal relevant provisions.

This preliminary assessment is aimed at assisting legal practitioners, policy-makers and fisheries managers in taking the necessary steps for improving the EAF implementation in their country.

The review of national policies and/or legislation is one of the many ways or processes through which an assessment of the implementation of the EAF can be conducted. It provides a country with the opportunity to reassess its respective policy and legal frameworks, identify the gaps and/or needs for improvement, and present recommendations for enacting new policies and/or legal instruments for an EAF, and/or amending the existing ones to bring them fully in line with an EAF.

4. References

Reports and other international instruments

- FAO.** 2021a. *A diagnostic tool for implementing an ecosystem approach to fisheries through policy and legal frameworks*. Rome. <https://doi.org/10.4060/cb2945en>
- FAO.** 2021b. *Un outil de diagnostic pour la mise en œuvre d'une approche écosystémique des pêches à partir des cadres politiques et juridiques*. Rome. <https://doi.org/10.4060/cb2945fr>
- FAO.** 2021c. *Uma ferramenta de diagnóstico para a implementação de uma abordagem ecossistêmica às pescas através de quadros políticos e jurídicos*. Roma.
- FAO.** 2021d. *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>
- FAO.** 2021e. *Ecosystem Approach to Fisheries – Policy and Legal Implementation*. In: FAO elearning Academy. Rome, FAO. Cited 8 April 2022. <https://elearning.fao.org/course/view.php?id=753>
- FAO.** 2019. *Progress in the Implementation of the Code of Conduct for Responsible Fisheries and related instruments*. In: *Report of the Thirty-third Session of the Committee on Fisheries, Rome, Italy 9–13 July 2018*. FAO Fisheries and Aquaculture. Report No. 1249. Rome. www.fao.org/3/ca5184en/ca5184en.pdf
- FAO.** 2016. *A How-to Guide on legislating for an ecosystem approach to fisheries*. FAO EAF-Nansen project report No. 27, Rome, FAO.
- Skonhoft, A.** 2011. *Legislating for an ecosystem approach to fisheries. A review of trends and options in Africa* (English). FAO EAF-Nansen project report No. 10, Rome, FAO, 2011. 159 p.

Internet sources

- FAO.** n.d-a. EAF Nansen-Programme, available at <http://www.fao.org/in-action/eaf-nansen/background/history-of-the-nansen-programme/en/> (Accessed on 08 April 2020).
- FAO.** n-d.b. *The EAF IMT tool: monitoring progress and achievements of effective fisheries management*, available at <http://www.fao.org/in-action/eaf-nansen/news/detail-events/en/c/1268177/>.
- FAO.** n.d-c. FAOLEX Database, Country Profiles, available at <http://www.fao.org/faolex/country-profiles/en/>.

Appendix A. List of national policy and legal instruments assessed in this report

Identification	Instruments of MADAGASCAR
A	Fisheries Policies
A1	2016-2020 Programme sectoriel agriculture, élevage, pêche Plan national d'investissement agricole (PSAEP/PNIAEP)
A2	2015 Politique Nationale de l'Environnement pour le Développement Durable
A3	2015-2025 Stratégie et Plans d'Actions Nationaux sur la Biodiversité
A4	2015-2019 Plan National de Développement 2015-2019
A5	2015 Lettre de Politique Bleue
A6	2015 Lettre de Politique Intersectorielle Agriculture, Elevage et Pêche
A7	2012 Stratégie Nationale de Bonne Gouvernance des Pêches Maritimes à Madagascar
B	Fisheries Primary Legislation
B1	2015 Loi n° 2015-053 du 16 décembre 2015 portant Code de la pêche et de l'aquaculture
C	Fisheries Secondary Legislation
c1	2017 Arrêté n° 29213/2017 du 28 novembre 2017 fixant les conditions et modalités d'obtention d'une autorisation d'exportation des produits et des sous-produits de la pêche et de l'aquaculture
c2	2017 Arrêté n° 29212/2017 du 28 novembre 2017 fixant les produits et les sous-produits de la pêche et de l'aquaculture d'origine marine autorisés à être collectés
c3	2017 Arrêté n° 29211/2017 du 28 novembre 2017 fixant les modalités de transfert de gestion des ressources halieutiques et écosystèmes aquatiques
c4	2017 Arrêté n° 27786/2017 du 9 novembre 2017 fixant les critères exigés pour l'exploitation d'une ferme aquacole de crabes de mangrove (<i>Scylla serrata</i>) à Madagascar
c5	2017 Arrêté n° 24390/2017 du 04 octobre 2017 portant mise en œuvre du plan d'aménagement concerté des pêcheries pour le Fokontany d'Ampasivelona, Commune Ambodibonara, District d'Ambilobe
c6	2017 Arrêté n° 19815/2017 du 21 août 2017 Portant sur la réglementation de la pêche récréative et de la pêche sportive maritime
c7	2017 Arrêté n° 14191/2017 du 9 juin 2017 portant mise en œuvre du Plan d'Aménagement des Pêcheries pour les Baies d'Ambaro, de Tsimipaika, d'Ampasindava et l'archipel de Nosy Be (PAP BATAN)
c8	2017 Arrêté n° 11907/2017 du 17 mai 2017 portant modification de l'arrêté n°37069/2014 portant définition du plan d'aménagement concerté des pêcheries de la baie d'Antongil
c9	2017 Décret n° 2017-532 du 04 Juillet 2017 portant organisation générale des activités de commercialisation et de la valorisation des produits de la pêche et de l'aquaculture
c10	2016 Arrêté n° 23283/2016 du 7 novembre 2016 portant officialisation du plan d'aménagement concerté des pêcheries maritimes de la Région Melaky ainsi que des modalités prises pour sa mise en œuvre
c11	2016 Arrêté n°10772-16 du 13 mai 2016 portant suspension de toutes activités sur l'exploitation des trélangs (holothurie, concombre de mer, bêche de mer)
c12	2016 Décret n°2016-1493 portant réglementation des activités d'aquaculture
c13	2016 Décret n° 2016-1492 du 06 décembre 2016 portant réorganisation générale des activités de pêche maritime

Identification	Instruments of MADAGASCAR
c14	2014 Arrêté n° 32101/2014 du 24 octobre 2014 portant réglementation de l'exploitation des crabes de mangrove (<i>Scylla serrata</i>) de Madagascar, modifié par l'Arrêté n° 37206/2014 du 19 décembre 2014 et l'Arrêté n° 14096/2016 du 01 juillet 2016
c15	2014 Arrêté ministériel n° 21816-2014 portant interdiction de l'exploitation des corail noir (<i>antipatharia</i> sp.) au niveau national
c16	2014 Arrêté n° 12666/2014 du 28 mars 2014 portant réglementation sur la conservation des tortues marines capturées par les pêcheries
c17	2014 Arrêté n° 12665/2014 du 28 mars 2014 portant réglementation sur la conservation des requins-renards (famille des Alopiidae) capturés par les pêcheries
c18	2012 Décret n° 2012-771 du 21 août 2012 portant création du Centre de Développement de l'Aquaculture
c19	2012 Décret n° 2012-768 du 21 août 2012 portant création de l'Observatoire Economique de la Pêche et de l'Aquaculture
c20	2008 Arrêté n° 16953/2008 du 07 octobre 2008 fixant les règles applicables à la corde de dos des chaluts utilisés par les navires de pêche industrielle et artisanale des crevettes côtières
c21	2008 Arrêté n° 16952/2008 du 04 septembre 2008 établissant les modalités administratives de gestion des droits de pêche industrielle et artisanale des crevettes côtières
c22	2007 Décret N°2007-957 portant définition des conditions d'exercice de la pêche des crevettes côtières
c23	2006 Arrêté n° 18679/2006 du 30 octobre 2006 fixant les types d'engins autorisés pour la pêche traditionnelle crevette dans la zone comprise entre le cap St Sébastien au Nord et la pointe d'Angadoka au Sud
c24	2005 Décret n° 2005-376 du 22 juin 2005 portant création de l'Agence Malgache de la Pêche et de l'Aquaculture (AMPA)
c25	2003 Décret n° 2003-1101 du 25 novembre 2003 réglementant l'exercice de la pêche par chalutage, dans la mer territoriale malgache
c26	2003 Décret n° 2003-076 fixant les attributions du Ministre de l'agriculture, de l'élevage et de la pêche ainsi que l'organisation générale de son ministère
c27	2002 Arrêté n° 1613-2002 portant adoption d'un système de suivi satellitaire à bord de tout navire opérant dans le secteur de la pêche
c28	2002 Arrêté n° 1612-2002 fixant les mesures relatives à la pêche en eau profonde
c29	2002 Décret n° 2002-412 fixant les attributions du Secrétaire d'Etat à la pêche et aux ressources halieutiques, ainsi que l'organisation générale de son département, modifié par Décret n° 2002-825
D	Other Sector's Primary Legislation
d1	2015 Loi n° 2015-005 du 26 février 2015 portant refonte du Code de Gestion des Aires Protégées
d2	2015 Loi n°2015-003 du 20 janvier 2015 portant Charte de l'Environnement Malagasy actualisée
d3	2003 Loi n° 2003-025 portant statuts des ports
d4	2000 Loi n°99-028 du 3 février 2000 portant refonte du Code maritime
d5	1999 Loi n° 98-029 portant Code de l'eau
d6	1999 Loi n° 99-021 sur la politique de gestion et de contrôle des pollutions industrielles
d7	1996 Loi n° 96-025 relative à la gestion locale des ressources naturelles renouvelables
d8	1960 Ordonnance n° 60-126 fixant le régime de la chasse, de la pêche et de la protection de la faune
E	Other Sector's Secondary Legislation
e1	2017 Décret n° 2017-1106 du 28 novembre 2017 portant création, organisation et fonctionnement du Comité Interministériel de l'Environnement (CIME)

Identification	Instruments of MADAGASCAR
E2	2015 Décret n° 2015-629 du 07 Avril 2015 portant création d'une Commission Nationale de Gestion Intégrée des Mangroves
E3	2013 Décret n° 2013-880 du 23 décembre 2013 fixant la Politique Nationale de l'Education relative à l'Environnement pour le Développement Durable (PEREDD)
E4	2010 Arrêté interministériel n° 52004/2010 du 10 décembre 2010 portant création, organisation et fonctionnement de la Commission du Système des Aires Protégées de Madagascar
E5	2010 Décret N° 2010-137 du 23 mars 2010 portant réglementation de la gestion intégrée des zones côtières et marines de Madagascar
E6	2007 Arrêté Interministériel n°13 802/2007-MINENVEF/MDM/MDE/M du 23 août 2007 portant création, fonctionnement et organisation du Comité d'orientation et d'évaluation au sein de chaque nouvelle aire protégée en voie de création
E7	2005 Décret n° 2005- 848 appliquant les articles 2 alinéa 2, 4, 17, 20 et 28 de la loi n° 2001-005 portant Code de gestion des aires protégées
E8	2000 Décret n° 2000-027 relatif aux communautés de base chargées de la gestion locale de ressources naturelles renouvelables
E9	1999 Décret n° 99-954 relatif à la mise en compatibilité des investissements avec l'environnement
E10	1997 Arrêté interministériel n° 4355/97 portant définition et délimitation des zones sensibles
E11	1961 Décret n° 61-093 portant application de l'ordonnance n° 60-126 du 3 octobre 1960 fixant le régime de la chasse, de la pêche et de la protection de la faune

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none • not assessed N/A not applicable * optional

Appendix B. Ecosystem Approach to Fisheries Legal Checklist applied against selected national policy and legal instruments

EAF components	EAF legal requirement		Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
				1ary	2ary	1ary	2ary		
	Scope and definitions								
General guidelines	1.	– Clearly outline the geographic and substantive scope of the application.	✓	✓	✓	✓	✓	(A1) Page 23 (A2) Page 32 (A3) Pages 65–67 (B1) Article 3 (c16) Article 1 (c17) Article 1 (D5) Articles 3–4 (E5) Articles 1–4	
	Principles and objectives								
C.1 EAF concepts C.3 Precautionary approach C.4 Stakeholder participation C.6 Integration of lower level authorities C.7	2.	– Clearly define and apply the precautionary approach.	∅	∅	∅*	∅	∅	(A5) Page 11 (B1) Article 9(e) (c5) Article 3 (D2) Article 11 (E5) Article 6	Reference in (A5) and provisions in (B1), (c5), (D2) and (E5) do not define the precautionary approach.
	3.	– Broaden stakeholder participation with integration of lower level authorities and bodies.	✓	✓	✓*	✓	✓	(A3) Pages 66–67, 108 (A4) Page 55 (A5) Page 11 (A6) Page 8 (A7) Pages 26–28	

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none • not assessed N/A not applicable * optional

EAF components	EAF legal requirement		Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
				1ary	2ary	1ary	2ary		
Conflict management and C.11, C.13, C.14 and C.17								(B1) Article 7 (c3) Entire Order (c7) Article 3 (D1) Article 6 (D2) Article 14 (D7) Entire Law (E1) Article 2	
	4.	– Ensure the right of access to fair and transparent information.	∅	X	X*	✓	✓	(A1) Pages 50–51 (A2) Pages 5-6 (A3) Pages 94–95 (A5) Page 11 (A6) Pages 8–9 (A7) Page 25 (D1) Article 6 (D2) Articles 14, 20 (E5) Articles 21–22	References in (A1) to (A7) do not explicitly ensure the right of access to information but concern important measures for access to information.
	5.	– Promote institutional coordination, cooperation and integration.	✓	∅	✓*	✓	✓	(A1) Pages 63–67 (A3) Pages 67, 137–138 (A6) Pages 19–20 (B1) Article 64 (c3) Articles 9–10 (c25) Article 2 (D1) Article 27 (E1) Article 2 (E5) Articles 5, 30–32	Provision in (B1) is limited to MCSE.

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none ● not assessed N/A not applicable * optional

EAF components	EAF legal requirement	Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
			1ary	2ary	1ary	2ary		
6.	– Maintain ecological relationships among harvested, dependent and associated species.	X	✓	●*	X	✓	(B1) Articles 9(d)(f), 16 (E5) Articles 5–6	
7.	– Promote sustainable development and avoid overexploitation of marine living resources.	✓	✓	✓*	✓	✓	(A1) Pages 24 and 26 (A3) Page 108 (A4) Page 61 (A5) Pages 10–11 (A6) Page 8 (B1) Articles 2, 9(a)(b), 16 (C7) Article 4 (C8) Article 4 (D1) Article 5 (D2) Articles 3, 17 (D6) Articles 13–14 (E5) Articles 5–6	References in (A1) and (A4) do not mention avoiding overexploitation of marine living resources.
8.	– Preserve marine habitat, conserve and restore marine living resources and biodiversity.	✓	✓	✓*	✓	✓	(A3) Pages 66–67 (A4) Page 66 (B1) Articles 2, 9(g), 16 (C3) Article 8 (D1) Article 5 (D2) Articles 5, 8 (E5) Articles 5–6, 9 (E7) Article 3	
9.	– Promote ecosystem well-being, including the human biotic and abiotic components.	✓	✓	✓*	✓*	✓*	(A1) Page 27 (A2) Page 3 (A3) Page 67 (A4) Page 61	

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none ● not assessed N/A not applicable * optional

EAF components	EAF legal requirement		Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
				1ary	2ary	1ary	2ary		
								(A5) Page 12 (B1) Articles 2, 4, 9(d)(e)(g), 16 (C3) Article 8 (C7) Article 4 (C8) Article 4 (D6) Article 3 (E5) Articles 5–6 (E7) Article 3	
10.	– Promote adaptive management measures, including their regular monitoring and review.		✓	X	✓*	●*	✓*	(A1) Pages 51, 62–67 (C8) Articles 21–22 (E6) Entire Decree	
11.	– Harmonize management measures, including those for shared resources.		✓	✓	●*	✓*	●*	(A3) Pages 125–126 (B1) Articles 5 and 10–11 (D4) Articles 1.9.01–1.9.04	
12.	– Reduce and manage conflict between users and stakeholders over fisheries resources and ecosystems.		∅	∅	✓*	●*	●*	(A3) Page 109 (B1) Article 9(h) (C7) Article 24	Reference in (A3) is limited to conflicts on land use for aquaculture. Provision in (B1) addresses the need to avoid negative impacts from multiple uses of coastal zones and lake areas.

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none ● not assessed N/A not applicable * optional

EAF components	EAF legal requirement	Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
			1ary	2ary	1ary	2ary		
13.	– Consider socioeconomic contexts (e.g. employment, livelihoods, equity, poverty, gender) when designing and implementing management measures.	✓	✓	✓*	✓*	✓*	(A1) Page 24 (A3) Page 67 (A4) Page 56 (A5) Page 10 (A6) Pages 16–17 (A7) Pages 40–41 (B1) Articles 2, 9(a)(j), 14 (C7) Articles 3–4 (C8) Article 4 (D1) Article 5 (D2) Articles 17–18 (E5) Article 5	
14.	– Promote management measures, designate the authority and outline the timeline and process for their monitoring and review.	✓	✓	∅*	●*	●*	(A3) Pages 93–157 (B1) Articles 12, 13 (C13) Article 2	Provision in (C13) designates the authority in charge of implementing the measures.
15.	– Provide for the establishment of MCSE measures.	✓	✓	✓*	✓*	●*	(A2) Page 5 (A7) Pages 28–30 (B1) Articles 9(k), 64 (C7) Article 9 (D2) Article 20	Reference in (A2) concerns environmental surveillance.
16.	– Promote ecosystem-based research plans/priorities, designate the authority and outline the timeline and process for their monitoring and review.	X	X	X*	∅*	X*	(D1) Article 5	Provision in (D1) calls for enhancing biodiversity through research.

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none • not assessed N/A not applicable * optional

EAF components	EAF legal requirement		Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
				1ary	2ary	1ary	2ary		
	17.	– Promote the right of access to education and awareness raising on EAF.	∅	X	∅*	∅*	✓*	(A3) Pages 93–96 (c7) Article 9 (d1) Article 5 (d2) Articles 18, 20 (E3) Annex	References in (A3) concern education and awareness-raising on biodiversity issues. Provision in (c7) concerns awareness-raising on closed seasons and areas. Provisions in (d1) and (d2) concern awareness raising and education on environmental protection.
		Institutional arrangements							
C.2 Management boundaries and measures	18.	– Ensure new management boundaries, measures and plans are: (a) ecologically meaningful considering resource ranges, habitats and other ecological factors.	X	X	✓	✓*	✓*	(c5) Article 5 (c7) Entire Order (c8) Entire Order (c10) Entire Order (d1) Entire Law (E5) Entire Decree (E6) Entire Decree (E9) Entire Decree	
C.4 Stakeholder participation		(b) overlapped closely and are harmonized with well-established management boundaries and governance structures.	X	X	✓	✓*	✓*	(c5) Article 5 (c7) Entire Order (c8) Entire Order (c10) Entire Order	
C.5 Coordination, cooperation and integration									

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none ● not assessed N/A not applicable * optional

EAF components	EAF legal requirement	Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
			1ary	2ary	1ary	2ary		
C.7 Conflict management							(D1) Entire Law (E5) Entire Decree (E6) Entire Decree (E9) Entire Decree	
C.8 Integrated management of aquatic ecosystems	19. – Promote states cooperation on the harmonization of management measures and plans (bilaterally, regionally and internationally).	✓	✓	X	✓*	●*	(A1) Pages 64, 66–67 (A3) Page 144 (B1) Articles 5 and 10–11 (D2) Article 5 (D4) Articles 1.9.01–1.9.04	
	20. – Establish transparent and accessible mechanisms, bodies (including lower level authorities) or processes to: (a) support well-established management boundaries and governance structures on the basis of ecosystem considerations.	✓	X	✓	✓*	✓*	(A5) Page 12 (C3) Articles 8–9 (C5) Article 5 (C7) Entire Order (C8) Entire Order (D2) Article 19 (D1) Entire Law (E5) Entire Decree (E6) Entire Decree (E9) Entire Decree	
	(b) outline conservation and management measures, including FMPs, at local and national levels.	✓	✓	✓	●*	●*	(A5) Page 12 (B1) Articles 12, 13 (C3) Entire Order (C5) Entire Order (C7) Entire Order (C8) Entire Order (C10) Entire Order	

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none ● not assessed N/A not applicable * optional

EAF components	EAF legal requirement	Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
			1ary	2ary	1ary	2ary		
	(c) facilitate coordination, cooperation and integration of management decisions, regulatory action, environmental policies, plans and programs.	✓	X	X	✓*	✓*	(A3) Pages 99–100, 138 (A7) Pages 34–35 (D2) Article 18 (D6) Article 18 (E1) Article 2 (E4) Articles 2 and 4	
	(d) monitor, assess and align the various environmental policies and plans.	X	X	X	X*	X*		
	(e) manage conflict over fisheries, relevant resource and ecosystem, including parameters for decision-making and resolving the conflict.	∅	X	✓	●*	●*	(A3) Page 109 (C7) Article 24	Reference in (A3) is limited to conflicts on land use for aquaculture.
	(f) ensure integrated management of aquatic ecosystems (e.g. integrated coastal zone) based on ecosystem delimitations.	✓	X	X	✓*	✓*	(A7) Pages 34–35 (D2) Article 19 (E2) Entire Decree (E5) Entire Decree	
	(g) ensure periodic reviews of managed aquatic ecosystems that assess the state of aquatic resources, levels of pollution, habitat degradation and other factors.	X	X	X	X*	X*		
	(h) ensure periodic reviews of integrated management plans to assess objectives and indicators and to determine any potential needs for adjustment or revision.	X	X	X	X*	X*		
	(i) ensure periodic reviews of conflict management processes.	X	X	X	X*	X*		

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none • not assessed N/A not applicable * optional

EAF components	EAF legal requirement	Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
			1ary	2ary	1ary	2ary		
21.	– Clearly outline powers, roles and responsibilities of all bodies, designated authorities, their relationships and processes, avoiding overlapping and conflicting mandates.	✓	X	✓	✓*	✓*	(A3) Pages 93–157 (c5) Articles 13–16 (c7) Articles 26–29 (c8) Articles 15–17 (c10) Articles 23–25 (c25) Entire Decree (c30) Entire Order (D3) Articles 7–14 (E1) Article 2	
22.	– Outline mandates for the government institutions to: (a) coordinate efforts, cooperate and integrate approaches, from the local to the national levels.	✓	✓	✓	✓	✓	(A1) Pages 64, 66–67 (A2) Pages 4–5 (A3) Pages 137–138 (A7) Pages 38–39 (B1) Articles 7, 15 (c3) Entire Order (c8) Entire Order (D1) Article 6 (D2) Article 19 (D6) Article 18(3)(5) (D7) Entire Law (E1) Article 2 (E2) Entire Decree	
	(b) coordinate, cooperate and integrate the regional and international processes and arrangements.	✓	✓	✓	✓	✓	(A1) Pages 64, 66–67 (A3) Page 144 (B1) Articles 5 and 10–11 (c30) Article 1 (D4) Articles 1.9.01–1.9.04 (E2) Article 3	

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none • not assessed N/A not applicable * optional

EAF components	EAF legal requirement	Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
			1ary	2ary	1ary	2ary		
							(E4) Article 2	
	(c) allocate financial, human and material resources to ensure the integration of lower level authorities	✓	✓	X	X	X	(A1) Pages 31–33 (A3) Pages 139–143 (A5) Pages 14–15 (B1) Article 15	
	Stakeholder participation, coordination, cooperation and integration							
C.4 Stakeholder participation	23. – Ensure bodies established are broadly representative (from industry, the artisanal sector, academia, civil society and local communities) and processes allow for stakeholder and institutional participation and coordination, engaging and integrating lower level authorities or bodies when resources are affected at local level.	X	✓	✓	✓	✓	(B1) Article 7 (C7) Articles 30–31 (C8) Articles 18–20 (C10) Articles 26–28 (C12) Article 7 (D7) Entire Law (E2) Article 3	
C.5 Coordination, cooperation and integration								
C.6 Integration of lower level authorities, bodies and stakeholders	24. – Establish and properly publicize public meetings or hearings.	X	X	X	∅	X	(D5) Article 23 (D6) Articles 61, 66	Provisions in (D5) and (D6) require public hearing but no requirements were found on publicizing them.
C.8 Integrated management of aquatic ecosystems	25. – Allow for sufficient and reasonable time for comments on proposed management decisions or actions (e.g. in meetings and in writing).	X	X	X	✓	X	(D7) Articles 17–37	
	26. – Promote international cooperation for effective integrated management of aquatic ecosystems.	X	✓	X	✓	X	(B1) Articles 5 and 10–11 (D2) Article 5 (D4) Articles 1.9.01–1.9.04	

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none • not assessed N/A not applicable * optional

EAF components	EAF legal requirement		Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
				1ary	2ary	1ary	2ary		
		Fisheries management <i>Catch/output controls</i>							
C.9 Controls on fishing operations C.10 Fishery management plans C.17 Monitoring and review	27.	– Establish limits on the amount of fish that may be removed from a fishery in a given period of time (e.g. TAC), restrict the number of fish that may be landed in a day (e.g. bag limit) or place limits on the amount of acceptable bycatch and/or discards from a fishery – all based on scientific data and maximum sustainable yield and the precautionary principle.	X	∅	✓	N/A	N/A	(B1) Article 22(c) (c5) Article 8	Provision in (B1) cross-refer to regulations for fixing the authorized species, TAC and minimum size species.
	28.	– Ensure authority to institute TACs and to allocate individual quotas is representative, including representatives from lower levels of government.	X	X	X*	N/A	N/A		
	29.	– Ensure procedure for TACs outlines the category of vessels to which the TAC applies; period of time for which the TAC is declared; process for sub-dividing the TAC into individual quotas; timeline, authority and participatory process for periodic monitoring and review.	X	X	X	N/A	N/A		
	30.	– Coordinate the TACs for shared stocks or highly migratory species with international or regional management measures.	X	X	X*	N/A	N/A		
	31.	– Monitor the catch in real-time and close a fishery when the TAC is reached.	X	X	X*	N/A	N/A		
	32.	– Attach catch controls to licenses and access agreements, including authority responsible for allocating, issuing and regulating quotas, and the procedure to be followed.	X	X	X*	N/A	N/A		
	33.	– Outline the ability to institute additional catch controls (e.g. bag limits for recreational fishing), including the authority	X	X	X*	N/A	N/A		

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none ● not assessed N/A not applicable * optional

EAF components	EAF legal requirement		Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
				1ary	2ary	1ary	2ary		
	responsible for allocating, issuing and regulating quotas, and the procedure to be followed.								
	Effort/input controls								
C.9 Controls on fishing operations C.10 Fishery management plans C.17 Monitoring and review	34.	– Define a broad fishing license scheme to regulate access to fisheries and fishing vessels with timeline, authority and process for renewing the license, monitoring and compliance, and permit suspension and revocation of the license for non-compliance.	✓	✓	✓*	N/A	N/A	(A7) Pages 35–37 (B1) Articles 23–49 (C1) Entire Order (C6) Entire Order (C13) Articles 8–29 (C23) Entire Decree	
	35.	– Designate authority responsible for allocating, issuing and regulating licenses, specified license duration, requirement of a fee and conditions that may be attached to licenses.	✓	✓	✓*	N/A	N/A	(A7) Pages 35–36 (B1) Articles 23–49 (C13) Articles 27–29	
	36.	– Outline process for establishing provisions for effort controls (e.g. limitation on vessel capacity, on expansion of fishing fleet, on allowable days spent at sea).	X	X	✓*	N/A	N/A	(C5) Article 5 (C7) Articles 16–18 (C8) Articles 6–7 (C23) Entire Decree	
	37.	– Outline specific details of fishing license scheme (e.g. number of licenses to be allocated, permit conditions for each fishery).	∅*	X*	X	N/A	N/A	(A7) Pages 54–56	Reference in (A7) suggests some restrictions on number of license issued for specific fisheries.
	38.	– Empower the designated authority to establish additional regulations for licensing.	X*	✓	●*	N/A	N/A	(B1) Article 22	
	39.	– Empower authority to regulate effort controls and respective parameters.	X*	✓	●*	N/A	N/A	(B1) Articles 9(b), 22(m)	
	Fishing gear and method controls								

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none ● not assessed N/A not applicable * optional

EAF components	EAF legal requirement		Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
				1ary	2ary	1ary	2ary		
C.9 Controls on fishing operations C.10 Fishery management plans C.17 Monitoring and review	40.	– Establish requirements on fishing gear and methods that are permitted for use within a given fishery or area, including related technical specifications (e.g. general prohibitions on types of gear, methods, specifications on gear design, minimum mesh sizes).	∅	✓	✓	N/A	N/A	(A7) Pages 54–56 (B1) Articles 17, 22(e)(g) (c5) Articles 5, 7–11 (c7) Articles 13–20 (c8) Article 11 (c23) Entire Decree (c29) Entire Order	Reference in (A7) suggests some restrictions on fishing gears and methods for specific fisheries.
	41.	– Outline prohibitions on highly destructive gear and fishing methods (e.g. fishing by toxic substance, explosives, electricity, fishing with the use of light).	X	✓	●*	N/A	N/A	(B1) Articles 17, 22(f)	
	42.	– Outline requirements aimed at reducing negative impacts of fishing methods and gear (e.g. prohibition of trawling in areas with sensitive seabed habitat, require use of biodegradable nets, restrict the use of FADs or require use of bycatch reduction devices).	X	✓	✓	N/A	N/A	(B1) Article 17, 22(h) (c10) Article 13 (c21) Entire Order (c26) Entire Order	
	<i>Spatial and temporal controls</i>								
C.9 Controls on fishing operations c.10 Fishery management plans c.17 Monitoring and review	43.	– Regulate area and time in which fishing operations may or may not take place (e.g. closed areas/seasons), closed or restricted-use areas, which prohibit or limit fishing operations (e.g. protection of artisanal fishing).	∅	✓	✓*	N/A	N/A	(A7) Pages 54–56 (B1) Articles 20, 22(b)(o) (c5) Articles 5–11 (c7) Articles 13–20 (c8) Article 5 (c10) Articles 10–12 (c23) Entire Decree	Reference in (A7) suggests some restrictions on spatial control for specific fisheries.
	44.	– Empower authority to define spatial and temporal controls and the procedure.	X	✓	●*	N/A	N/A	(B1) Articles 20, 22(b)(o)	

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none • not assessed N/A not applicable * optional

EAF components	EAF legal requirement		Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
				1ary	2ary	1ary	2ary		
	45.	– Ensure stakeholder and institutional consultation, both at national and lower levels, in the process of defining spatial and temporal controls.	X	∅	X*	N/A	N/A	(B1) Article 20	Provision in (B1) concerns the definition of spatial control.
	46.	– Establish technical details and specifics on spatial controls.	∅*	✓*	✓	N/A	N/A	(A7) Pages 54–56 (B1) Article 19 (c5) Articles 5–11 (c7) Articles 13–20	Reference in (A7) suggests some restrictions on spatial control for specific fisheries. Provision in (B1) cross-refer to regulation fixing preservation measures in vulnerable zones and mangroves.
	<i>Fishery management plans</i>								
C.9 Controls on fishing operations	47.	– Designate authority with power and responsibility to develop, approve, adopt and publicize a FMP, clearly outlining the roles and responsibilities.	X	∅	X*	N/A	N/A	(B1) Article 12	Provision in (B1) lacks reference to the process of adoption and publication of FMP.
C.10 Fishery management plans	48.	– Ensure FMPs and measures comply with established integrated management plans for aquatic ecosystems involving e.g. protected areas or critical habitat.	✓	∅	X	X*	X*	(A5) Page 12 (A7) Pages 28–29 (B1) Article 13	Provision in (B1) does not require the FMPs to comply with established integrated management plans
C.17 Monitoring and review									

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none • not assessed N/A not applicable * optional

EAF components	EAF legal requirement	Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
			1ary	2ary	1ary	2ary		
49.	– Establish process for approval, adoption and publication of FMP with its periodic review.	X	∅	✓*	N/A	N/A	(B1) Article 12 (c3) Entire Order (c5) Entire Order (c7) Entire Order (c8) Entire Order (c10) Entire Order	Provision in (B1) lacks reference to the process of adoption and publication of FMP.
50.	– Detail process of drafting FMP, including multi-level and multi-sector collaboration and consultation with stakeholders, and a participatory transparent process for monitoring and reviewing the FMP at a minimum within five years of their development.	X	∅	✓*	N/A	N/A	(B1) Article 12 (c3) Entire Order (c5) Entire Order (c7) Entire Order (c8) Entire Order (c10) Entire Order	Provision in (B1) does not include consultation, minimum timeframe for FMPs review, but cross-refer to regulation for details on the content of FMP and methods of its implementation.
51.	– List the minimum requirements in the FMPs:						(c5) Article 3 (c7) Article 4 (c8) Article 4	Provisions in (c5) and (c8) do not explicitly refer to an EAF.
	(a) management objectives that take into account EAF;	X	X	✓*	N/A	N/A		
	(b) biological description of fishery and ecosystem in which it takes place;	X	X	X*	N/A	N/A		
	(c) social, economic and institutional aspects of the fishery;	X	X	X*	N/A	N/A		
	(d) species composition and levels of bycatch, both retained and discarded;	X	X	X*	N/A	N/A		
(e) ecological relationships between harvested, dependent and associated species;	X	X	X*	N/A	N/A			

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none ● not assessed N/A not applicable * optional

EAF components	EAF legal requirement	Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
			1ary	2ary	1ary	2ary		
	(f) impact of other anthropogenic activities on the ecosystem; and	X	X	X*	N/A	N/A		
	(g) a review of the relationship with other coastal or marine resource management plans.	X	X	X*	N/A	N/A		
	Conservation measures							
C.14 Habitat and biodiversity conservation and restoration	52. – Incorporate the consideration of habitat and biodiversity in the processes for establishing management measures (e.g. outline habitats and species related to the fishery and take measures to limit the negative impacts of fishing on them) or gear regulations.	✓	✓	✓*	✓*	✓	(A2) Chapter V (A3) Pages 88–91, 97–98 (A5) Page 12 (B1) Articles 16–17 (C3) Article 8 (C7) Article 11 (D5) Article 24 (E5) Article 9 (E7) Entire Decree	
	53. – Ensure special protection for marine mammals, sea turtles and other particularly vulnerable marine life (e.g. set prohibitions or limitations), in coordination with other national designations or protections and regional and international conservation and management measures.	∅	✓	✓*	✓*	●	(A3) Pages 118–119 (B1) Article 18 (C11) Entire Order (C15) Entire Order (C16) Article 2 (C17) Entire Order (D8) Articles 2, 48	References in (A3) concern coral reef protection.
	54. – Ensure coordination between the various authorities involved in marine environment protection.	✓	X	●*	✓*	✓	(A7) Pages 34–35 (D6) Article 18 (E4) Article 4 (E5) Entire Decree	
	55. – Establish mechanisms and designation of authority responsible for establishing:	∅	X	X*	X*	X	(A3) Pages 123–125	References in (A3) do not provide for the consultative

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none • not assessed N/A not applicable * optional

EAF components	EAF legal requirement	Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
			1ary	2ary	1ary	2ary		
	(a) designation and protection of threatened and endangered species, ensuring cooperation among the authorities throughout the listing process, definition and qualifying factors of each designation, process for listing, including steps for consultation and the special protections associated with the designations.							process of designating protected species.
	(b) protected areas, ensuring the outline of the type of protected areas, description of their levels of protection (e.g. marine reserve, parks, sanctuaries or MPAs), the process for nominating, establishing and managing a protected area, including stakeholder participation particularly of local communities, consultation and coordination with various authorities, both at national and local levels.	∅	✓	✓*	✓*	✓	(A3) Pages 120–122, 133 (A5) Page 12 (B1) Article 20 (C7) Entire Order (C10) Articles 8–9 (D1) Entire Law (D2) Article 19 (E6) Entire Decree (E7) Entire Decree	References in (A3) and (A5) do not provide for the consultative process of designating protected areas. Provision in (D2) does not detail the process.
	(c) the restoration of damaged habitat and ecosystems, ensuring the process through which it is decided when, where and how a damaged habitat/ecosystem shall be restored, and the establishment of funds that may be used to engage in restoration activities.	∅	X	✓*	∅*	X	(A3) Pages 90, 105, 111, 119, 121, 133 (A5) Page 12 (C7) Article 11 (D2) Article 19	References in (A3) and (A5) concern mechanisms of restoration of degraded ecosystems, mangroves, and sensitive aquatic ecosystems, but do not provide for the relevant process. Provision in (D2) does not detail the process.
56.	– Ensure educational and awareness-raising activities for promoting habitat and biodiversity conservation and	✓	X	X*	X*	✓	(A3) Pages 93–96 (E3) Annex	

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none • not assessed N/A not applicable * optional

EAF components	EAF legal requirement		Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
				1ary	2ary	1ary	2ary		
		restoration with the establishment of special funds to support such activities.						(E5) Articles 20–21	
C.15 Regulation of activities potentially harmful to aquatic ecosystems	57.	– Adopt measures to: (a) regulate and reduce pollution of the aquatic ecosystems which should apply to all activities that might have an impact (including fishing, mining, shipping, etc.) and cover all types of pollution including bycatch, discharge of waste, vessel emissions, coastal runoff.	✓	✓	X	✓	✓	(A2) Chapter V (A3) Pages 113–116 (A4) Page 66 (B1) Article 17 (D2) Article 19 (D4) Articles 1.10.01–1.10.14 (D5) Articles 12–16 (D6) Entire Law (E5) Articles 11–13	Reference in (A4) is to the reduction of pollution in general without referring to the aquatic ecosystem nor to the types of pollution to be covered.
		(b) promote energy efficiency and reduce emissions that are applicable to fishing vessels, merchant shipping vessels and extractive industries, including through fuel efficiency standards, vessel size limitations and equipment restrictions for fishing vessels.	∅*	X*	X*	X	X	(A3) Pages 101, 105–106	Reference in (A3) concerns the promotion of energy alternatives and renewable energies that are more beneficial to ecosystems.
		(c) prevent and eliminate ghost fishing with the prohibition of the abandonment of fishing gear, notification of authorities when fishing gear is lost, regulation of materials used in the manufacture of gear.	X	✓	X	X	X	(B1) Article 58(d)	
	58.	– Require authorization prior to the planned introduction of any species, including species meant for aquaculture or fish stocking, taking into account the precautionary approach, and establish measures to prevent the escape of exotic species into the wild.	✓	X	X	X	X	(A3) Pages 117–118	

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none • not assessed N/A not applicable * optional

EAF components	EAF legal requirement		Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
				1ary	2ary	1ary	2ary		
C.16 EIS or EIA	59.	– Regulate marine extractive activities (e.g. marine mining for minerals or petroleum, harvesting of marine plants) and other potentially harmful activities, including the construction of installations for use by industry, laying of underwater cables, military exercises, shipping.	∅	X	X	X	✓	(A3) Page 101 (E5) Articles 14–17	Reference in (A3) concerns the sharing of good practices concerning mining exploitation.
	60.	– Require EIS or EIAs for activities that have the potential to affect ecosystems that support fisheries (e.g. fishing, aquaculture, mining, petroleum extraction, coastal development).	∅	✓	X	✓	✓	(A6) Page 15 (B1) Articles 9(i) and 21 (D2) Article 13 (D3) Article 50 (D5) Article 23 (D6) Articles 16, 61, 64–65, 96 (E5) Article 12 (E6) Article 13	Reference in (A6) draws refers to the need of EIAs in development projects. Provision in (B1) cross refers to regulation the terms and conditions of the EIA without specifying which activities are subject to such assessment.
	61.	– Detail components of EIS or EIA, which should at least discuss the purpose/need for the activity, the ecosystem that may be affected, potential impacts of the proposed activity and potential alternatives or mitigation and rehabilitation measures.	X	∅*	X*	X	X	(B1) Article 21	Provision in (B1) cross-refer to regulation the terms and conditions of the EIA.
	62.	– Establish process for submission, review and decision-making on the EIS or EIA, with designation of authority responsible for receiving, reviewing and deciding upon the EIS or EIA (e.g. the minister responsible for environment), opportunity for public participation (e.g. comment periods and hearings), consultation with other relevant government institutions or localities, and determination of adequate mitigation measures.	X	∅*	X*	X	X	(B1) Article 21	Provision in (B1) cross-refer to regulation the terms and conditions of the EIA.

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none ● not assessed N/A not applicable * optional

EAF components	EAF legal requirement		Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
				1ary	2ary	1ary	2ary		
	Fishery monitoring and research								
C.13 EAF research	63.	– Establish research programme for furthering the knowledge and understanding of EAF.	✓	X	X*	∅	X*	(A1) Page 33 (A3) Page 107 (A5) Page 15 (A7) Pages 32–33 (D2) Article 19	Reference in (A1) concerns applied research on issues related to an EAF, but not specifically mention EAF. Reference in (A3) does not explicitly refer to EAF. Reference in (A5) is about aquaculture research. Provision in (D2) broadly addresses research to support environmental management.
	64.	– Designate authority for conducting and involving stakeholders in the research programme.	✓	✓	●*	✓	●*	(A5) Page 15 (A7) Pages 32–33 (B1) Article 9(c)(d) (D2) Article 19	Reference in (A5) is about aquaculture research.
	65.	– Ensure the research programme’s objectives are based on EAF principles, which may include research on inter-species interactions, the impact of fishing on target and non-target stocks, the identification of spawning and nursery areas, areas of critical habitat, rates of bycatch and discards per fishery, the incidence and effect of pollution on fisheries, the status of ecosystem biodiversity, the social and economic dimensions	X	X	X*	X	X*		

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none ● not assessed N/A not applicable * optional

EAF components	EAF legal requirement		Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
				1ary	2ary	1ary	2ary		
	(such as employment, food security), income distribution and other considerations.								
	66.	– Consider the findings of the EAF research in the adoption of conservation and management measures.	✓	✓	✓*	✓	●*	(A5) Page 15 (A7) Pages 32–33 (B1) Article 9(c)(d) (C5) Article 3 (C7) Article 25 (D2) Article 11	Reference in (A5) is about aquaculture research.
		MCSE							
C.11 MCSE	67.	– Outline an observer scheme with details on the categories of vessels/fisheries that it applies to and the role that observers play (which may be tailored to the category of vessel or the type of fishery and may be limited to the collection of catch/effort data and the collection of scientific samples, or may include the authority to register and/or report violation of management measures).	X	X	X	N/A	N/A		
	68.	– Ensure observers have full access to all parts of the vessel and its equipment and to any place in the country where fish that have been caught in national waters are uploaded, processed, stored or transshipped.	X	✓	X	N/A	N/A	(B1) Articles 26, 34(c), 38(e), 39(g)	
	69.	– Design the scheme in line with regional or international requirements, taking into account relevant regional observer programs.	X	X	X	N/A	N/A		
	70.	– Ensure VMS is required for vessels licensed to fish in national waters and ABNJ, detailing specific categories of fishing vessels and/or fisheries to which it applies.	X	✓	X	N/A	N/A	(B1) Article 59	
	71.	– Ensure reporting of catch and effort data, clearly identifying the vessels that are expected to report (at least all commercial	X	✓	∅	N/A	N/A	(B1) Article 57 (C28) Entire Order	(C28) concerns the transmission of positioning data

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none • not assessed N/A not applicable * optional

EAF components	EAF legal requirement		Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
				1ary	2ary	1ary	2ary		
	fishing vessels that fish within national waters and all nationally-flagged vessels authorized to fish within waters under national jurisdiction and in ABNJ), to whom they are required to report (the designated authority), the frequency and timing of their reports, and the method or format in which they are required to report (e.g. weight of fish caught, including percentage of bycatch, species, dates of fishing, fishing zones, gear/methods employed, type of vessel, time of departure from national waters and catch status at that time).								of the fishing vessel.
72.	– Ensure the establishment and maintenance of a record of fishing vessels licensed to fish in waters under national jurisdiction and nationally flagged vessels authorised to fish in ABNJ with the designation of the authority responsible for its maintenance and information to be recorded for each category of vessel.		X	∅	∅	N/A	N/A	(B1) Article 33 (c13) Article 7	Provision in (B1) generally requires the Ministry in charge of fisheries and aquaculture to establish a register of national fishing vessels. Provision in (c13) concerns the maintenance of a record of pirogues by the decentralised fisheries directorates.
73.	– Ensure the records of industrial fishing vessels include the name of the vessel, the flag state and any previous flag states, the radio call sign, the International Maritime Organization (IMO) number, the automatic identification system (AIS) and the VMS, if relevant the vessel length and tonnage, if relevant the fishing methods and gear used, the name and nationality of operator and beneficial owners of the vessel, and any transgressions of fisheries legislation associated with the vessel.		X	X	X	N/A	N/A		

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none • not assessed N/A not applicable * optional

EAF components	EAF legal requirement	Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
			1ary	2ary	1ary	2ary		
74.	– Broadly detail the registration process and ensure registration of all fishing vessels with the relevant fisheries or maritime authority, including information on the name of vessel, the flag state and any previous flag states, the radio call sign, if relevant the IMO number, the AIS and VMS, if relevant the vessel length and tonnage, the name and nationality of the beneficial owners of the vessel, and any transgressions of fisheries legislation associated with the vessel.	X	∅	∅	✓ N/A	N/A	(B1) Articles 22(a)(d), 23 (c13) Article 6 (d4) Articles 2.1.04–2.4.04	Provisions in (B1) cross-refer to regulations for fixing registration of SSF, and the registration of fishing vessels. Provision in (c13) is limited to registration of SSF vessels.
75.	– Detail the specifications for marking vessels and fishing gear in accordance with internationally approved standards.	X	✓	X	N/A	N/A	(B1) Article 58	
76.	– Ensure cooperation and coordination between fisheries and maritime authorities throughout the registration process.	X	X	X	N/A	N/A		
77.	– Ensure authorized officers have enforcement powers, allowing them to board and search vessels (at sea and in port) and other premises related with fishing, to examine logbooks, records, gear and catch, to investigate and collect evidence, to seize fish, gear and vessels, and to interrogate, detain and arrest persons associated with reasonably suspected violations.	X	✓	X	N/A	N/A	(B1) Articles 68–69	
78.	– Ensure the controls placed on landing and transshipping of fish, both at sea and in port, and by national and foreign vessels, is in accordance with regional and international instruments.	X	✓	X	N/A	N/A	(B1) Article 60	
79.	– Provide additional VMS specifications and specific details on the registration process.	X*	∅	X	N/A	N/A	(B1) Article 59	Provisions in (B1) cross-refer to regulations for detailed requirements on VMS.

Perceived level of alignment with the EAF legal requirement

✓ full ∅ partial X none • not assessed N/A not applicable * optional

EAF components	EAF legal requirement		Fish. policy	Fisheries legislation		Other sectors legislation		Policy and legal basis	Comments and explanatory notes
				1ary	2ary	1ary	2ary		
	Enforcement processes and sanctions scheme								
C.12 Offences, penalties and administrative and judicial processes	80.	– Detail the fisheries-related offences (civil or criminal) and corresponding penalties, weighted depending on the level of severity of the offence but outlined in a way that maintains their strength over time (e.g. utilize formulas such as a percentage of the total market value of the sale of the illegal catch, or penalty units).	X	✓	X	✓	X	(B1) Articles 74–78, 84–96 (D1) Articles 55–65 (D5) Articles 66–68	
	81.	– Establish transparent and equitable administrative processes for determining and confirming offences, applying relevant penalties, with provision for compounding of offences/out-of-court settlement.	X	✓	X	✓	X	(B1) Articles 71–73, 79 (D1) Articles 66-79	
	82.	– Establish judicial processes used for determining and confirming offences and applying relevant penalties to the offending parties, allowing for a right of appeal.	X	X	X	X	X		

The ecosystem approach to fisheries (EAF) is a risk-based management process for the planning, management, development, regulation and monitoring of fishing and fishing-related activities. EAF addresses ecological consequences of fishing as well as social, economic and institutional aspects of fisheries sustainability. Adequate legislation and regulatory frameworks are key to successful implementation of the EAF. The continuous review and update of information on legislation and regulatory instruments require the analysis of existing legal frameworks at all levels of governance, to assess whether they remain in force, valid and aligned with international fisheries law standards, including the EAF. The present work was prepared with a view to assess the level of alignment of national policy and legal frameworks of Madagascar. Based on this preliminary assessment, policy-makers, legal practitioners and fisheries managers can take the necessary steps for improving the EAF implementation in their country. These steps could involve the amendment of existing legislation and/or enactment of new legislation and development of new policies to bring fully in line with an EAF.

For more information:

The EAF-Nansen Programme

Fisheries and aquaculture - Natural Resources and Sustainable Production
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