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REVIEW OF MADAGASCAR 'S POLICIES & STRATEGIES IN FISHERIES AND AQUACULTURE & TO CLIMATE CHANGE RESILIENCE

&
FORMULATION OF
SPECIFIC RECOMMENDATIONS &
INVESTMENT PLAN FOR
THEIR ALIGNMENT WITH RELEVANT
INTERNATIONAL INSTRUMENTS

FINAL REPORT

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EXECUTIF SUMMARY

This report examines the alignment of Malagasy national policies and strategies with international instruments in the field of fisheries and aquaculture as well as that of the available agricultural investment plans (PNIAEP/PSAEP and PNIEB) with the policy framework and reform strategy for fisheries and aquaculture in Africa (PFRS) and the available National Climate Change Adaptation Plan (PNA).

The objective is to assess the extent to which Madagascar has aligned its national fisheries and aquaculture policies and strategies with the African PFRS and relevant international instruments and then to ensure that its PNIA and Sectoral Policy on fisheries and aquaculture are consistent with the PFRS and other measures related to environmental management, resilience and adaptation to climate change.

A previous study revealed that the percentage of alignment of Madagascar's fisheries and aquaculture development policies and strategies with the African PFRS is 76.75%. (KOKO Chantal de Cupertino, June 2023).

The result of this study shows that Madagascar currently has a total of 12 national instruments relating to the development of Fisheries and Aquaculture composed of a law on the Fisheries and Aquaculture Code, sectoral policies and development strategies as well as investment plans for the fisheries sector. Among the 25 specific global instruments for Fisheries and Aquaculture selected as relevant for Madagascar, 21 have been ratified, 1 is in the process of being ratified and 3 have not yet been ratified. This allows us to deduce that the big island has sufficiently ratified instruments and has considered these instruments in its 12 national instruments mentioned translated into policies and strategies, except that the effective implementation of the latter needs even more political will

on the part of all existing powers, whether executive or legislative, effective involvement of all stakeholders and support from regional and international organizations.

Thus, this report highlights: (i) the importance of prioritizing in a participatory manner the facilitation of the domestication of international instruments relevant to the development of Fisheries and Aquaculture, (ii) the stronger integration of the climate change adaptation strategy in sectoral policies related to the development of Fisheries and Aquaculture and (iii) their implementation plans, by aligning the objectives of all development projects in Fisheries and Aquaculture for effective involvement of stakeholders and for their contribution to the implementation of strategies already in place.

By responding to these recommendations, Madagascar could better face climate challenges and promote resilient and sustainable practices to advance even faster in the development of the Fishing and Aquaculture sectors.

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ACRONYMS & ABBREVIATIONS

ACECoR African Centre of Excellence for Coastal Resilience
AMEP Port State Measures Agreement
AMREP Port State Measures Agreement
DONKEY Non-State Actors
ANUP United Nations Fish Stocks Agreement
APMF Maritime and River Port Agency
APP Fisheries Partnership Agreement
CBD Biodiversity Convention
CCPR Code of Conduct for Responsible Fishing
CCPR Code of Conduct for Responsible Fishing
CER Regional Economic Communities
CITES Convention on International Trade in Endangered Species of Wild Fauna and Flora
UNCLOS United Nations Convention on the Law of the Sea
CTOI Indian Ocean Tuna Commission
DGEB General Directorate of the Blue Economy
DGPA General Directorate of Fisheries and Aquaculture
DRPEB Regional Directorate of Fisheries and Blue Economy
DV-AD Voluntary Guidelines for the Development of Sustainable Aquaculture
DV-PPD Voluntary Guidelines for Sustainable Small-Scale Fisheries Development
FAO Food and Agriculture Organization of the United Nations
GAPCM Association of Aquaculturists and Shrimp Fishermen of Madagascar
GVD SSF Volunteer Directors for the Development of Sustainable Small-Scale Fisheries
IH.SM Institute of Fisheries and Marine Sciences
INN Illegal, Undeclared and Unregulated
MARP African Fisheries Reform Mechanism
MEDD Ministry of the Environment and Sustainable Development

MPEB Ministry of Fisheries and Blue Economy
NEPAD New Partnership for Africa's Development
ILO International Labour Organization
WTO World Trade Organization
IMO International Maritime Organization
NGO Non-Governmental Organization
ORP Regional Fisheries Organization
CSO Civil Society Organization
PDACM Continental Aquaculture Development Plan in Madagascar
PDDA Comprehensive Programme for the Development of African Agriculture
PFRS Policy Framework for Reform and Strategy for Fisheries and Aquaculture
PNA National Plan for Adaptation to Climate Change
PNIAEP National Investment Plan for Agriculture, Livestock and Fishing
PNIEB National Investment Plan for the Blue Economy
PSAEP Sector Policy Agriculture Livestock Fishing
RENAFEP National Network of Women Fishermen in Madagascar
SNDAM National Strategy for the Development of Aquaculture in Madagascar
SNEB National Strategy for the Blue Economy
AU-BIRA African Union Inter-African Bureau for Animal Resources
UA-EM Member States of the African Union
EU European Union
SMEB Global Blue Economy Strategy

INTRODUCTION

Context

The management of fisheries resources and the development of aquaculture in African Union (AU) Member States are guided by national policies and legal instruments. These instruments are mainly developed to regulate fisheries and aquaculture practices in national waters and territories. They also set acceptable standards for the marketing, trade and use of fisheries and aquaculture products.

Increased awareness followed by adherence to international treaties, conventions and agreements would greatly assist Africa in combating IUU fishing, curbing the abuse of flags of convenience and enforcing international management measures that will ensure sustainable and profitable exploitation of fisheries resources in the region.

Thus, the second phase of the Fisheries Governance Project (FISHGOV2) which is currently being implemented by AU-IBAR specifically aims to build on the achievements of its previous phase (FISHGOV1) to provide technical support to AU Member States and regional institutions in aligning their national fisheries and aquaculture policies and strategies with the African PFRS and other relevant global fisheries and aquaculture instruments.

Justification

Although most AU Member States ratify, accept, approve and accede to the instruments, they fail to incorporate the provisions of the treaties into the existing laws of their respective countries to give them the required legal force. The key strategic objective of the FISHGOV 2 project is therefore to ensure (i) that Africa adequately domesticates the relevant global instruments so that (ii) it can be adequately represented and participate effectively in

international fisheries and aquaculture fora and to improve the governance of fisheries and aquaculture in AU Member States and mitigate the impacts of climate change on the sector.

In this regard, AU-IBAR identified and engaged the services of relevant and competent consultants to conduct the review of national policies in 15 AU Member States and to make specific recommendations for the alignment and domestication of global instruments as well as the alignment of national investment plans for the sector with the AU PDDA. Madagascar was selected in the Eastern Africa region to be supported in this regard.

This document is therefore part of the "Review of policies and regulations relating to the development of Fisheries and Aquaculture in Madagascar in order to propose specific recommendations for their alignment with global instruments and the domestication of the latter." and the "Review of national sectoral strategies in fisheries and aquaculture and the national investment plan for the Fisheries and Aquaculture sector (PNIEB) in order to align them with the African PFRS and the climate change adaptation plan (PNA) in order to propose an adequate investment plan."

A. METHODOLOGY

1. BIBLIOGRAPHIC RESEARCH

An inventory of national policies relating to the development of Fisheries and Aquaculture existing in Madagascar was conducted. In parallel, an identification of the ratification situation of the relevant corresponding international instruments available was also carried out for their alignment and proposal for domestication.

Various national and international consultation workshops (online and in person) as well as technical working groups (national and international) have strengthened and enriched the information collected during this documentation phase. Additional information was collected on the internet, mainly from the various websites of: MPEB, FAO, MEDD, AU-BIRA.

2. STAKEHOLDERS CONSULTED

35 resource persons from different sectors involved in the field of international legal instruments directly or indirectly related to the development of Fisheries and Aquaculture were selected to conduct the first part of the survey. The list of these resource persons and their contact details is included in the appendix to this report. They are categorized in the following table:

Table 1: Categorization of Actors Consulted

Competent Authorities	National level	MPEB, MEDD, Ministry of Transport (APMF, Port of Tamatave), Ministry of Hydrocarbons (OLEP),
National stakeholders		NGOs, CSOs, Associations and/or Groups of Fishermen and Aquaculturists, University and Research Institute (IH.SM), National Focal Points of international instruments in Madagascar

Stakeholders at the regional level ECOFISH, FAO, CTOI

3. CONSULTATIVE AND PARTICIPATORY PROCESS¹

The three-stage process made it possible to determine the relevance and, above all, the importance of each document inventoried.

- Focus session with the AU-IBAR technical team. This session allowed to agree on expectations and clarify outstanding questions regarding the study. Then a database (Excel) containing the contacts of the selected resource persons concerned was developed.
- Preliminary surveys: a survey sheet was developed and sent by e-mail to the various selected resource persons appearing in the pre-established contact database. The aim is not only to obtain the maximum amount of information from all these resource persons but also to inform them about the implementation of this consultancy work by sharing relevant documents as well as updated and existing national policies and strategies related to the development of Fisheries and Aquaculture in Madagascar.
- In -depth interviews, direct and/or online. These in-depth interviews were conducted with resource persons identified following the analysis of each response issued during the

¹ The survey sheets are inserted in the appendix to this document.

preliminary survey according to their interest in international legal instruments.

4. CONSTRAINT OF THE STUDY

During this study, one of the major challenges concerns the availability of resource persons. Given their responsibility, it was difficult to obtain an interview with some of them. Furthermore, the deadline for returning the survey forms was almost a month, while the drafting of a well-founded document, especially on the subject relating to the history of ratification of the instruments, depends on the participatory information from these resource persons.

However, some resource persons were able to provide sufficient information by filling out the survey form sent following e-mail and reminder phone call. The majority expressed their lack of knowledge especially on international legal instruments related to the development of fisheries to be able to fill out the survey form. However, they agreed that this exercise allowed them to better understand this subject (specific objective of the AU). In addition, more in-depth bilateral interviews, direct and/or indirect, were conducted with some resource persons who could provide details relating to information in their respective fields to continue the study.

B. MALAGASY NATIONAL SECTORAL POLICIES AND STRATEGIES ON THE DEVELOPMENT OF FISHERIES AND AQUACULTURE AND CLIMATE CHANGE

1. MAIN NATIONAL INSTRUMENTS EXAMINED

The documents relating to the National Policy and Development Strategies for Fisheries and Aquaculture in Madagascar as well as the regulations in force are as follows: (i) SNDAM update (2024 - 2030), (ii) SNEB, (iii) PAN-PP, (iv) PDACM, (v) National Strategy for the Development of Small-Scale Fisheries, (vi) Law 2015-053 on the Fisheries and Aquaculture Code in Madagascar and (vii) Law 2018-026 on the revision of certain provisions of this Fisheries and Aquaculture Code as well as (viii) the National Climate Change Adaptation Plan (PNA), (ix) the National Agriculture, Livestock and Fisheries Investment Plan (PNIAEP), (x) the Blue Economy Investment Plan, (xi) Integrated Ocean Governance Policy and (xii) the Investment Guide for Aquaculture.

2. OBJECTIVE OF RELEVANT NATIONAL INSTRUMENTS

The national instruments examined focus on the development of Madagascar's fisheries and aquaculture as well as resilience and adaptation to climate change.

Table 2: Summary of the objectives of each National Instrument

NATIONAL INSTRUMENTS	OBJECTIVE
i. Law 2015-053 on the Fisheries and Aquaculture Code and Law 2018-026 on the revision of certain provisions of this Fisheries and Aquaculture Code	Improving governance and sustainable management of fisheries resources with a view to preserving aquatic ecosystems and protecting the biological diversity of Malagasy waters. Strengthening the

	contribution of the fisheries and aquaculture sector to food and nutritional security, as well as to the economic and social development of Madagascar for the well-being of current and future generations.	National Agricultural, Livestock and Fisheries Investment Program which sets the main indicators, quantifies the priority areas to be pursued and evaluates the budgets required for each of these interventions.
ii. National Strategy for the Blue Economy on Fisheries and Aquaculture (SNEB-PA)	The SNEB-PA constitutes the basis of the Blue Economy policy and represents the second part of a series of documents aimed at establishing the foundations of the Blue Economy in Madagascar.	v. National Investment Plan for the Blue Economy in Madagascar (PNIEB)
iii. National Climate Change Adaptation Plan (NAP)	In order to put the National Policy for the Fight against Climate Change at the service of Madagascar's development priorities, the PNA focuses on the sectors of Agriculture-Livestock, Fisheries, Water Resources, Public Health, Biodiversity and Forestry, Coastal Zones, Infrastructure, Management/Reduction of risks and climate disasters, while considering in a transversal manner the strengthening of human capacities .	It is structured around the 5 strategic axes of the SMEB which are the improvement of Blue Governance (Axis 1), the promotion and valorization of natural resources in relation to the environment (Axis 2), the development of infrastructures and services for the promotion of the Blue Economy (Axis 3), the sustainable exploitation of water resources (Axis 4), and resilience to the impacts of climate change (Axis 5).
iv. National Agricultural, Livestock and Fisheries Investment Plan (PNIAEP)	For the implementation of the LPAEP (AEP Policy Letter), Madagascar has adopted the	vi. National Aquaculture Development Strategy (SNDAM) (updated in 2024, horizon 2030)
		<ul style="list-style-type: none"> - Sectoral policy document providing a strategic framework to promote the Aquaculture sector in Madagascar and aligning with the three fundamental pillars. - Guiding principles: guide public actions, encourage dialogue with the private sector and civil society, and propose an operational

		framework, accompanied by development plans adapted to different scales.
vii.	Development Plan for Continental Aquaculture in Madagascar (PDACM) (Climate Change Adaptation Strategy for the Inland Water Aquaculture Sector in Madagascar: 2022-2027)	<ul style="list-style-type: none"> - A tool for implementing the National Strategy for the Development of Aquaculture in Madagascar (SNDAM) and for seeking funding, internal or external, - A guidance tool for technical and financial partners (NGOs, international cooperation, private sector players, etc.)
viii.	National Plan for the Development of Small-Scale Fisheries (PAN-PP)	<p>The Plan, which will be implemented over five years, encourages:</p> <ul style="list-style-type: none"> - the promotion of food and nutritional security , - the equitable development of small-scale fishing, - the establishment of sustainable exploitation of fisheries resources through good governance and - sustainable management of the sector, and finally the improvement of working conditions for the stakeholders involved.
ix.	Investment Guide for Aquaculture in Madagascar	A sector guide that guides national and international players wishing to invest in the Aquaculture sector on the

		Big Island.
x.	Integrated Ocean Governance Policy (IOGP)	Establishment of an inclusive ocean governance framework that integrates all organizations responsible for maritime and ocean affairs and that harmonizes national actions relating to Madagascar's marine resources. This is in order to promote the development of a diversified, competitive and sustainable economy for the benefit of the Malagasy population.

PART 1:

**“REVIEW OF MADAGASCAR’S NATIONAL FISHERIES AND
AQUACULTURE INSTRUMENTS FOR THEIR ALIGNMENT WITH
RELEVANT GLOBAL INSTRUMENTS IN ORDER TO PROPOSE SPECIFIC
DOMESTICATION RECOMMENDATIONS.”**

A.CONTEXT

The PFRS or Policy Framework and Reform Strategy for Fisheries and Aquaculture in Africa was designed to establish an enabling and favorable framework for the fisheries sector that can catalyze equitable social and economic development in Africa in order to facilitate the transformation of African fisheries and aquaculture by improving nutrition, income and wealth creation.

It aims to:

- i. Develop and clarify the essential guiding principles for good governance of African fisheries with a view to strengthening the coherence and coordination of the sector;
- ii. Assist AU Member States, RECs and RFBs in developing realistic fisheries and aquaculture policies by proposing standards and good practices that benefit the sector in AU Member States in terms of food security, employment and income;
- iii. Facilitate regional collaboration and integration in the management of shared fisheries and aquaculture resources; Provide appropriate guidelines on the modalities for implementing reforms for the development of fisheries and aquaculture;
- iv. Facilitate the ratification and/or adoption of appropriate provisions in international instruments on fisheries management;
- v. Facilitate advocacy for increased investment in the fisheries and aquaculture sector.

This document was chosen as a reference for all AU Member States in the development of Fisheries and Aquaculture and its alignment with all strategic documents in this area is recommended and was supported by the FISHGOV 1 and 2 project.

A previous study revealed that for the case of Madagascar, the alignment rate of national instruments relevant to Fisheries and Aquaculture with the PFRS is estimated at 76.75%.

This study continues the next step which is the review of Madagascar's national fisheries and aquaculture instruments for their alignment with relevant global instruments so as to propose specific domestication recommendations as well as to ensure that the various agricultural investment plans available in Madagascar align with the African PFRS for better orientation to strengthen resilience and reduce vulnerabilities to climate change in the fisheries and aquaculture sector in Africa.

B.SPECIFIC INTERNATIONAL INSTRUMENTS FOR THE DEVELOPMENT OF FISHERIES AND AQUACULTURE

1. MAIN INTERNATIONAL INSTRUMENTS EXAMINED, THEIR OBJECTIVES AND THE SITUATION OF MADAGASCAR WITH REGARD TO THEIR RATIFICATION AND DOMESTICATION

- i. **The main binding instruments concern** : (i) the United Nations Agreement adopted on 4 August 1995 on the implementation of the provisions of the United Nations Convention on the Law of the Sea (UNCLOS) of 10 December 1982 relating to the conservation and management of straddling fish stocks and highly migratory fish stocks (UNFA); (ii) the 2009 FAO Agreement on Port State Measures (PSMA) to prevent, deter and eliminate IUU fishing; (iii) the Treaty on Strengthening

High Seas Governance and Establishing the Tools Necessary for Effective Protection of the Ocean and Sustainable Use of its Resources, in a Coordinated and Coordinated Manner with Other Competent Organizations and Instruments (BBNJ).

ii. **Voluntary Guidelines** have also been adopted to assist Member States in fulfilling their legal obligations and implementing management principles in the fisheries sector, such as: the FAO Voluntary Guidelines for Aquaculture, the Voluntary Guidelines for the Development of Sustainable Small-Scale Fisheries (GVD SSF) and the Development of Aquaculture (DV-AD/FAO ²).

iii. **Other specific instruments related to the development of Fisheries and Aquaculture** contain provisions and address other relevant aspects of fisheries such as: the field of trade, fish health and food safety, working conditions and safety of fishing vessels and environmental protection such as: the Convention on Biological Diversity (CBD), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the MARPOL Convention, the RAMSAR Convention, the NAIROBI Convention, the SOLAS Convention, the International Labour Organization (ILO) , World Trade Organization (WTO) and Maritime Organization (IMO) Agreements and the various protocols such as NAGOYA and CARTAGENA.

iv. **Definition of concepts**

Consent to be bound by a treaty is expressed in various forms, including signature, ratification, acceptance, approval or accession and deposit.

So, by definition:

- **A Ratification** also means "**acceptance** ", "**Approval** " and "**accession** " are acts by which a State establishes at the international level its consent to be bound by a treaty. (Vienna Convention, 1969, Article 14).
- **A treaty** is an international agreement concluded between States in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whatever its name .

²Voluntary Guidelines for the Development of Sustainable Aquaculture

- **Domestication** is a process of incorporating the provisions of a treaty into the existing laws of a country to give it the force of law in that country.

2. RATIFICATION STATUS AND LEVEL OF IMPLEMENTATION OF GLOBAL INSTRUMENTS RELEVANT TO MADAGASCAR

Madagascar has almost ratified most of the international instruments directly or indirectly related to the development of Fisheries and Aquaculture. After analyzing each instrument deemed relevant for the fisheries and aquaculture sectors according to an in-depth study carried out by AU-IBAR and ACECoR on the identification of priority instruments for the development of Fisheries and Aquaculture in AU Member States, 25 different international instruments relevant to Madagascar were selected, of which 20 are already ratified and/or appropriate, 1 in the process of ratification and 4 not ratified.

Table 3: Summary of the objectives of the International Instruments related to the development of Fisheries and Aquaculture in Madagascar as well as their ratification status and their interposition with national regulations and their state of implementation

No.	Instruments	Objective	Membership / Ratification Status	State of implementation work / execution
01	AMREP / PSMA	Prevention, combat and elimination of IUU fishing through the implementation of effective port State measures, thereby ensuring the long-term conservation and sustainable use of living marine resources and marine ecosystems.	accession in 2017 and implementation since 2018 with the support of FAO (Ratification in progress)	Materialized by: - The Decree on Port State Measures, and strengthening its fisheries monitoring, control and surveillance systems and procedures. - The National Strategy and Action Plan to effectively fulfill Madagascar's international obligations as a flag, port, coastal and market State to combat IUU fishing. - The Port State Measures Support Project implemented by <i>Stop Illegal Fishing (SIF)</i>
02	CCPR	Promotion of long-term conservation and sustainable use of fisheries resources	Ratified in 1971	SNDAM/1st ^{axis} , 5th DA: Improving access to financing for national economic operators in the aquaculture sector

No.	Instruments	Objective	Membership / Ratification Status	State of implementation work / execution
				Implementation noted in the general policy of the State and the attributions of the MPEB (good governance and sustainable management of resources. IPOA-INN PAN-PP
03	CBD	Conservation of biological diversity, Sustainable and rational use of its constituent elements, Fair and equitable sharing of benefits arising from the exploitation of genetic resources	Adoption: May 9, 1992 in Rio de Janeiro Entry into force: December 29, 1993 Date of signature: June 8, 1992 Date of ratification: Decree No. 95-695 of November 3, 1995.	<p>SNDAM/1st^{axis}, 3rd DA: Establishment of a supportive environment for seed production according to quality standards and meeting market needs</p> <p>National implementing texts:</p> <ul style="list-style-type: none"> - Decree 2017-066 (amendment) - Law No. 2015-005 of February 26, 2015, amending the Protected Areas Code - Law No. 2013-010 of October 31, 2013 authorizing the ratification of the Nagoya Protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization relating to the Convention on Biological Diversity. <p>Action plan: Yes Implementation activities: Made:</p> <ul style="list-style-type: none"> - Awareness of the National Biodiversity Strategy and Action Plan (SPNAB) in the 05 provincial capitals: Mahajanga, Diego, Fianarantsoa, Tamatave, Tuléar Communication of the Protected Areas Code in the SAVA, DIANA, Atsimo Andrefana, Menabe, Boeny regions

No.	Instruments	Objective	Membership / Ratification Status	State of implementation work / execution
				<ul style="list-style-type: none"> - Capacity building of Protected Area managers in pilot sites (Diana, Boeny, Amoron'i Mania, Atsimo Andrefana) within the framework of POWPA Obtaining decrees for the definitive creation of 123 Protected Areas In progress : - Development of the national policy on Access and sharing of benefits arising from the use of genetic resources Development of the Decree regulating Access and sharing of benefits arising from the use of genetic resources -Establishment of the management delegation contract and specifications for protected areas
04	DV-PPD/FAO	Provision of additional guidance on small-scale fisheries in support of the general principles and provisions of the Code.	No need for ratification but already implemented	implementation with action plan validated in 2024 (PAN-PP)
05	DV-AD/FAO ³	Provision of additional guidance on aquaculture activities in support of the general principles and provisions of the Code	No need for ratification but already implemented	The 6 Guiding Principles to guide the public action of the SNDAM correspond perfectly to the 4 levers for sustainable development of aquaculture
06	Lines guidelines volunteers for the measurements of artisanal fishing and those of	prevent, counteract and eliminate fishing through effective measures; implementation of responsibilities of the State of flag	Approval in COFI/FAO 2024	Non-binding but implemented in Madagascar

³Voluntary Guidelines for the Development of Sustainable Aquaculture

No.	Instruments	Objective	Membership / Ratification Status	State of implementation work / execution
	the state of flag			
07	The Consensus from Rome on fishing world; FAO 1995	<ul style="list-style-type: none"> Important recommendations for aquaculture and provided advice on the role of the sector in this regard concerns food security in developing countries development eliminate overfishing, rebuild and enhance fish stocks fish and minimize the unnecessary fishing practices, develop aquaculture sustainable, rehabilitate fish habitats and develop fisheries for new species and alternatives based on the principles of sustainability scientific and management responsible. 	Ratified	<ul style="list-style-type: none"> -Fishing Code -National fisheries strategy and blue economy -SNDAM: National Strategy for the Development of Aquaculture in Madagascar -PDACM: Madagascar Continental Aquaculture Development Plan
08	Initiative of Cancun and declaration of megadiverse countries the same ideas, 2002	FAO Statement on International Organization: Conference on Fisheries responsible (1992) who established the principles of control and monitoring	Applied	<ul style="list-style-type: none"> - Fishing Code - Text linked to the CSP
09	SOLAS (1974): Convention international for the	International Maritime Treaty Requiring only signatory flag states ensure that ships flying their flag respects	Ratified on June 7, 1996	<p>Membership and other formalities: March 7, 1996</p> <p>Implementation by APMF</p> <ul style="list-style-type: none"> - Maritime Code law 99/028 and implementing texts

No.	Instruments	Objective	Membership / Ratification Status	State of implementation work / execution
	backup of the life human in sea	the minimum standards of security in matters of construction, equipment and operating; SOLAS 1974 came into force effective May 25, 1980; considered as the most important of all international treaties concerning ship safety merchants		
10	EU INN Regulations (2010)	prevent, deter and eliminate IUU fishing; The Commission is working actively with all stakeholders to ensure consistent application of the IUU regulations; only marine fisheries products whose legality is validated by the State of competent flag or exporting State can be imported or exported from the EU	Not ratified	National plan currently being drafted
1 1	IPOA INN Regulations	Voluntary instruments developed within the framework of the CCPR. Combating and eliminating IUU fishing by providing all States with comprehensive, effective and transparent measures for action, including through appropriate regional fisheries management	Ratified	<ul style="list-style-type: none"> - National plan currently being drafted - The National Strategy and Action Plan to effectively fulfill Madagascar's international obligations as a flag, port, coastal and market State to combat IUU fishing. - The Port State Measures Support Project implemented by <i>Stop Illegal Fishing (SIF)</i>

No.	Instruments	Objective	Membership / Ratification Status	State of implementation work / execution
		organizations established in accordance with international law. international.		
12	UNFSA /ANUP⁴	<ul style="list-style-type: none"> - Agreement for the implementation of the provisions of UNCLOS (1982) on the conservation and management of fish stocks riding and tall migrants; - Long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks through effective implementation of the relevant provisions of the Convention. 	Ratified	<p>As a member country of the CTOI, Madagascar implements the UNFSA</p> <p>The data is sent to the CTOI level (Indian Ocean and East Africa zone)</p> <p>-List of serious violations and inspection procedures</p>
13	CITES Convention	Monitors international trade in plants and animals to ensure that it is sustainable and does not threaten the survival of species in the wild.	Ratified	<p>SNDAM/3rd axis : 4th DA: Regional and international cooperation</p> <p>Implementation by MEDD too</p>
14	NAIROBI Convention	<ul style="list-style-type: none"> - Conservation of the region's marine and coastal biodiversity, - Development of coastal and marine areas, - Strengthening the partnership between the public and private sectors and intergovernmental agencies, 	<p>Adoption: June 21, 1985 in Nairobi</p> <p>Date of signature: June 22, 1985</p> <p>Entry into force: May 30, 1996</p> <p>Date of ratification: March 24, 1998</p>	<p>Action Plan: Yes</p> <p>Implementation activities:</p> <ul style="list-style-type: none"> - Development of the National Action Plan on the protection of marine and coastal birds relating to the Protocol of the Convention - Development of the National Action Plan of the Manila Declaration on the further implementation of the Global Programme of Action for the Protection

⁴United Nations Fish Stocks Agreement

No.	Instruments	Objective	Membership / Ratification Status	State of implementation work / execution
		- Adopting a regional rather than local approach		of the Marine Environment from Land-based Activities within the framework of the implementation of the Nairobi Convention
15	RAMSAR Convention	Providing a framework for international cooperation for the conservation of wetland habitats.	Adoption: February 2, 1971 at RAMSAR Entry into force: December 21, 1975 Date of ratification: March 24, 1998 Effective Date: January 25, 1999	National implementing texts: - Draft implementing text Action plan: Yes Implementation activities: In progress: - 5 new sites awaiting designation at the RAMSAR Secretariat: Lake Sofia, Tsiribihina mangroves, Barren Islands, Onilahy Wetlands, Ambondrombe Wetlands - Update of the National Strategy for the Sustainable Management of Wetlands - Preparation of the National RAMSAR Report - Implementation of sustainable management of the 20 RAMSAR-labeled sites
16	ILO Convention	<ul style="list-style-type: none"> • <u>Maritime Labour Convention, 2006 (MLC, 2006)</u> <p>In accordance with paragraphs 2 and 10 of Standard A4.5, the Government has specified the following branches of social security: medical care; old-age benefits; and benefits in the event of accidents at work or occupational diseases.</p> <ul style="list-style-type: none"> • Convention 188 of the International Labour 	Ratified on June 15, 2023	SNDAM: Focus on Decent Work and Economic Growth: Industry, Innovation and Infrastructure - note on the rules and code of the maritime labour convention - Minimum requirements for seafarers to work on board a ship - Conditions of employment - Accommodation, leisure, food and catering - Health protection, medical care, welfare and social security protection

No.	Instruments	Objective	Membership / Ratification Status	State of implementation work / execution
		<p>Organization (ILO):</p> <p>It aims to improve the working and living conditions of fishing workers. Decent work for fishermen and sea fishermen,</p> <ul style="list-style-type: none"> - Improving working conditions (safety and health of workers, including training and safety equipment requirements) - Improving Living and Working Conditions on Board (safety on board ships, working hours, and living conditions) - Protection of Workers' Rights (remuneration, rest, protection against abuse and discrimination) 	Not ratified	
17	CARTAGENA ⁵ Protocol	Contribution to ensuring an adequate level of protection for the safe transfer, handling and use of genetically modified organisms resulting from modern biotechnology which may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health, with particular emphasis on transboundary movements.	<p>Adoption: November 20, 2003</p> <p>Entry into force: February 22, 2004</p> <p>Date of signature: September 14, 2000</p> <p>Date of ratification: November 20, 2003</p>	<p>Action plan: Yes</p> <p>National implementing texts:</p> <ul style="list-style-type: none"> - Order No. 11356/10/MEF of May 5, 2010 establishing a Scientific and Technical Committee on biosafety responsible for supporting the National Competent Authority within the 1st axis: SNDAM/1st DA: Determination and communication around adapted production systems <p>Ministry of Environment and Forests.</p> <ul style="list-style-type: none"> - National Biosafety Policy 2012 - Decree No. 2012 – 883 establishing, operating and

⁵Protocol on the prevention of biotechnological risks

No.	Instruments	Objective	Membership / Ratification Status	State of implementation work / execution
				<p>attributing the various Biosecurity bodies</p> <ul style="list-style-type: none"> - Law No. 2003 – 032 of November 20, 2003 authorizing the ratification of the Cartagena Protocol on the prevention of biotechnological risks or biosafety relating to the Convention on Biological Diversity - Decree No. 2003-1095 of November 20, 2003 ratifying the Cartagena Protocol on Biosafety - National Biosafety Bill drafted and in the process of being adopted <p>Implementation activities:</p> <ul style="list-style-type: none"> - Project entitled "Support for the implementation of the national Biosafety framework in Madagascar" by UNEP/GEF project start December 2011. - Project coordinated by Madagascar National Parks. Phase 1: Inventory of existing national and international legislation relating to modern biotechnology or in relation to the use of Living Modified Organisms, with reference to the reports previously established during the project "development of the National Biosafety Structure."
18	NAGOYA ⁶ Protocol	<p>Fair and equitable sharing of benefits arising from the utilization of genetic resources, including through:</p> <ul style="list-style-type: none"> - satisfactory access to genetic resources and - an appropriate transfer of relevant 	<p>Ratified in 2014-10-12</p> <p>Date of adoption: October 29, 2010</p> <p>Effective date:</p>	<p>SNDAM/1st ^{axis}, 3rd DA: Establishment of a supportive environment for the production of seeds according to quality standards and meeting market needs.</p> <p>National implementing texts</p> <ul style="list-style-type: none"> - Law No. 2013-010 of October 31, 2013 authorizing

⁶Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS)

No.	Instruments	Objective	Membership / Ratification Status	State of implementation work / execution
		technologies, taking into account all rights to these resources and technologies - adequate financing, thus contributing to the conservation of biological diversity and the sustainable use of its constituent elements.	October 12, 2014.	the ratification of the Nagoya Protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization relating to the Convention on Biological Diversity National policy letter on access and sharing of benefits related to genetic resources in Madagascar - Decree No. 2017-066 of January 31, 2017 relating to access to genetic resources and the sharing of benefits arising from their use. Action plan: yes Implementation activities: - Adoption of Decree No. 2017-066 of January 31, 2017 relating to access to genetic resources and the sharing of benefits arising from their use. - Development of implementing texts for decree no. 2017-066 of January 31, 2017 Awareness, information, training of stakeholders concerned by the implementation of the Nagoya Protocol
19	UNCLOS	Facilitation of international communications; -Enable equitable and efficient use of ocean resources, -Protection and preservation of the marine environment; - Promotion of maritime safety	Ratified on August 23, 2001	-Law No. 2004-019 Implementing international conventions relating to the protection of the marine and coastal environment against pollution by oil spills. Old Maritime Code put into force - Fishing Code - Mining code - Law 2018-025: establishing the use of maritime zones

No.	Instruments	Objective	Membership / Ratification Status	State of implementation work / execution
20	MARPOL Convention "OPRC 90 "	<ul style="list-style-type: none"> - Protection of the environment of marine and coastal ecosystems in the sub-region, by assisting these countries to comply with the international convention on prevention, control and cooperation against pollution by hydrocarbons (OPRC). - Development and maintenance of an organization adapted to respond to critical and urgent oil pollution situations - Adoption of uniform rules and procedures at the international level to define questions of responsibility and to ensure fair preparation in such occasions. 	<p>Effective date: May 1, 1965</p> <p>Ratified on May 20, 2002</p>	<p>Law No. 2004-019 of 19 August 2004 – chap. 5. Implementing international conventions on the protection of the marine and coastal environment against pollution by oil spills.</p> <ul style="list-style-type: none"> - The 3 instruments concern the same texts - National plan to combat

No.	Instruments	Objective	Membership / Ratification Status	State of implementation work / execution
	FIPOL or " FC 92 " ⁷	<ul style="list-style-type: none"> - Protection of the environment of marine and coastal ecosystems in the sub-region, by assisting these countries to comply with the international convention on prevention, control and cooperation against pollution by hydrocarbons (OPRC). - Development and maintenance of an organization adapted to respond to critical and urgent oil pollution situations - Adoption of uniform rules and procedures at the international level to define questions of responsibility and to ensure fair preparation in such occasions. -Establishment of a system of compensation supplementing that of the international convention on civil liability for oil pollution damage with a view to ensuring satisfactory compensation for victims of pollution damage and at the same time exempting the owner of the ship from the additional financial obligation imposed on him by the said convention. 	Ratified	Law 2004-019 of August 19, 2004 Chap. 4

⁷International Convention of 1992 on the establishment of an International Fund for Compensation for Oil Pollution Damage.

No.	Instruments	Objective	Membership / Ratification Status	State of implementation work / execution
21	CLC 92	<ul style="list-style-type: none"> - Protection of the environment of marine and coastal ecosystems in the sub-region, by assisting these countries to comply with the international convention on prevention, control and cooperation against pollution by hydrocarbons (OPRC). - Development and maintenance of an organization adapted to respond to critical and urgent oil pollution situations - Adoption of uniform rules and procedures at the international level to define questions of responsibility and to ensure fair preparation in such occasions. - Establishment of a system of compensation supplementing that of the international convention on civil liability for oil pollution damage with a view to ensuring satisfactory compensation to victims of pollution damage and at the same time exempting the owner of the ship from the additional financial obligation imposed on him by the said convention convention. 	Ratified on May 21, 2002	
22	WTO Agreement	Addresses issues related to	Not ratified	Participation in meetings

No.	Instruments	Objective	Membership / Ratification Status	State of implementation work / execution
	Or Agreement on the obstacles techniques at trade (OTC)	<p>overfishing and overexploitation of marine stocks by regulating government subsidies that support fishing activities.</p> <p>Importance:</p> <ul style="list-style-type: none"> • Financial contribution • Fight against IUU fishing, • Reduction of overfishing and overcapacity, • Contribution to the sustainability of the oceans, • Equity for developing countries and LDCs • Transparency and Monitoring • International Cooperation 		
23	International Treaty for the Protection of the High Seas and Marine Biodiversity (BBNJ or Biodiversity Beyond National Jurisdiction)	<p>-Protection of the Ocean located outside the exclusive economic zones (EEZ).</p> <p>-Promotion of compliance with the provisions and that fishing vessels on the high seas do not engage in any activity likely to undermine the effectiveness of international conservation and management measures.</p> <p>Importance:</p> <ul style="list-style-type: none"> • Effective conservation (Creation of MPAs) • Resource management (Rule 	Not ratified	Participation in meetings

No.	Instruments	Objective	Membership / Ratification Status	State of implementation work / execution
		for the exploitation of maritime resources) <ul style="list-style-type: none"> • Protection of endangered species (specific measures to protect marine species and support their habitat) • Preservation of Ecosystem Services (protection of marine ecosystems) 		
2 4	United Nations Framework Convention on Climate Change (UNFCCC)	Stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system KYOTO Protocol Paris Climate Agreement	Ratified - Law No. 2003-009 of September 3, 2003 authorizing the ratification of the Kyoto Protocol - Law No. 2016-019 of August 10, 2016 authorizing the ratification of the Paris Agreement of the	Enough implementation - Development of climate change mitigation/adaptation projects financed by the Green Climate Fund - Implementation of a project on adaptation to climate change and coastal zone management - Development of a National Adaptation Plan (PNA). - National CC adaptation plan - Establishment of the National CC and REDD+ Office (Reduction of deforestation)

No.	Instruments	Objective	Membership / Ratification Status	State of implementation work / execution
			United Nations Framework Convention on Climate Change. - Decree No. 2016-1188 of September 9, 2016 ratifying the Paris Agreement of the United Nations Framework Convention on Climate Change	
25	Ballast Water Management Agreement	- Protection of the marine environment against the transfer of harmful aquatic organisms in ballast water carried by ships -Draft maritime transport code (law)	Ratified	Adoption in progress

3. OPPORTUNITIES ARISING FROM THE DOMESTICATION OF REGIONAL, INTERNATIONAL AND GLOBAL INSTRUMENTS

Madagascar has already ratified and approved the majority of international instruments relevant to the development of fisheries and aquaculture. The integration of certain provisions of these instruments into strategic development documents is also noted, but the implementation and effective application of those that have been ratified or are in the process of being ratified must be improved in order to benefit from:

- a support framework for AU member states, including capacity building and various support for the implementation of these instruments;
- effective sovereignty over the certification of products to be exported with reference to the case of EU IUU regulations;
- of interest in the trade of fishery products for a good position on the quality and price side with regard to the ratification of the WTO Agreement.

C. RECOMMENDATIONS FOR HARMONIZATION OF NATIONAL INSTRUMENTS WITH RELEVANT REGIONAL, CONTINENTAL AND GLOBAL INSTRUMENTS

Reference is made to the preliminary analysis and findings made by the Centre of Excellence for Coastal Resilience (ACECoR) at the University of Cape Coast, Ghana, on mechanisms to facilitate the domestication of the global coastal resilience approach to facilitate

the domestication of global instruments and initiatives at continental, regional and national levels.

The analysis of regulatory frameworks made in this study has made it possible to identify several recommendations, some of which depend essentially on policy. The most important recommendations, which are consistent with the objectives of this study, are presented below.

1. RECOMMENDATIONS ADDRESSED TO MADAGASCAR

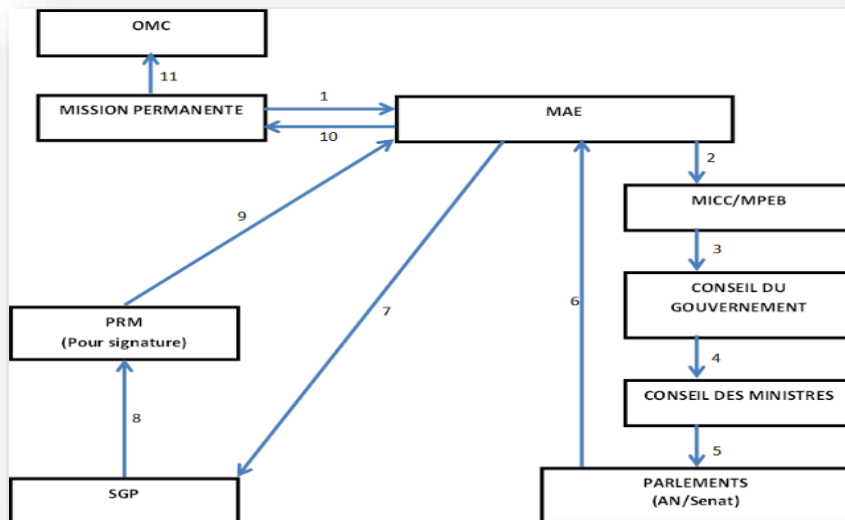
i. ROLES OF THE STATE AND NATIONAL STATE ACTORS

- Initiate a review of regulatory and operational frameworks for the adoption and/or implementation of instruments such as the WTO Agreement, the **EU** IUU Regulations (2010) and the BBNJ;
- Accelerate the ratification of AMREP ;
- effectively implement relevant ratified instruments such as: the UNFCCC, the ILO Convention in favour of sea fishermen, the International Convention for the Safety of Life at Sea (SOLAS 1974) as well as the UNFA;
- Create a framework for coordinating the implementation of international instruments already ratified or in the process of being ratified.
- Communicate jointly between the Ministries concerned to convince the Government (MPEB, FOP, MTM) to facilitate and accelerate the ratification process;
- Before proceeding with the technical stages of ratification, it is necessary to adopt a system for disseminating information concerning the relevant instruments as in the case of the BBNJ, by the Ministry responsible for the Environment;
- Develop at the national level a monitoring and evaluation system and data collection system to provide reference

situations on the evolution of development activities in fishing and aquaculture (professionalization of the sector);

- Demonstrate political will through an agreement on sufficient budgetary allocations, at least to initiate the processes of domestication and facilitation of the implementation of the relevant global instruments on the part of not only the executive powers (members of the Government) but especially those of the legislative and judicial branches (members of Parliament and the Senate), as well as those of the Decentralized Territorial Communities (Governors and Mayors, etc.).

Proposed model roadmap for ratification of the WTO Convention



ii. ROLE OF NON-STATE ACTORS

For a better implementation of each relevant instrument (ratified or not yet), it is recommended to appoint a focal point for each instrument and then to integrate them among the members of the Blue Economy CLUSTER or other platforms for mobilizing multi-sectoral actors in order to ensure the sharing and participatory and timely resolution of problems concerning each instrument (convention, Treaty, Regulation, Agreements and protocol) beneficial to Madagascar.

2. RECOMMENDATIONS ADDRESSED TO AU-BIRA AND SUB-REGIONAL, REGIONAL AND INTERNATIONAL ORGANIZATIONS

The role of sub-regional, regional and international organizations would be to support the process of engagement for each relevant instrument to be ratified relating to: (i) the creation of synergies between Madagascar and other States, (ii) the development of advocacy, (iii) support and assistance in the search for the necessary funding but also in the ratification processes, (iv) the adoption and implementation of the various relevant instruments.

PARTIAL CONCLUSION I

For Madagascar, increasing awareness and subsequent adherence to international treaties, conventions and agreements will be valuable aids in further combating IUU fishing, limiting the abuse of flags of convenience and, in particular, enforcing international

management measures that will help ensure sustainable and profitable exploitation of fisheries resources in the region.

Currently, all the strategic documents necessary to develop the Fisheries and Aquaculture sector such as the updated SNDAM (2023-2030), the SNEB (2023 - 2025) and the PNIEB (2023 -2033) as well as the Small-Scale Fisheries Development Strategy and their respective development plans are already available for Madagascar.

In total, 25 main relevant international instruments related to the development of Fisheries and Aquaculture in Madagascar are inventoried during this study. They belong to the category of main binding instruments, voluntary guidelines and other specific instruments indirectly related to the development of Fisheries and Aquaculture. The majority of them are already ratified and appropriated (20) by the Malagasy State but as for the domestication itself, several are being implemented thanks to the support of international organizations such as the FAO, for the case of AMREP and the Voluntary Directive for the Development of Small-Scale Fisheries of the CCPR.



AFRICAN UNION
INTERAFRICAN BUREAU
FOR ANIMAL RESOURCES



PART 2:

**“REVIEW OF THE NATIONAL SECTORAL POLICY (PSAEP) AND
AVAILABLE NATIONAL INVESTMENT PLANS (PNIAEP & PNIEB)**

IN FISHERIES AND AQUACULTURE FOR THEIR ALIGNMENT

**TO THE POLITICAL AND STRATEGIC REFORM FRAMEWORK DRAWN
UP BY THE AU (PFRS) AND TO THE CLIMATE CHANGE ADAPTATION
PLAN (PNA).**

A. CONTEXT

The Comprehensive Africa Agriculture Development Programme (CAADP) which is the NEPAD Agenda for the agricultural sector, has as its main objective to help African countries stimulate economic growth through agricultural development to eradicate hunger and reduce poverty. It is made up of four pillars namely i) sustainable land and water management, ii) access to markets, iii) food supply and hunger reduction, and iv) agricultural research.

By aligning with the PDDAA, Madagascar is committed to achieving an annual agricultural growth rate of 6% and to allocating at least 10% of its national budget to the agricultural sector according to the Maputo Convention and confirmed by the Malabo Convention. To enable the improvement of the quality and efficiency of the PSAEP/PNIAEP development process, COMESA was chosen as the Regional Economic Community in charge of supporting Madagascar.

B. GUIDELINES FOR RESILIENCE AND ADAPTATION TO CLIMATE CHANGE ACCORDING TO THE PFRS

Fishers and Aquaculture farmers, especially those who are already marginalized, are among the most vulnerable to the impacts of climate change and natural disasters. The costs to the fisheries and aquaculture sector are already being felt and more are anticipated that will undermine food security and livelihoods unless resilience is strengthened.

Therefore, the fisheries and aquaculture sector in Africa must receive the necessary attention at the policy level, and climate change and disaster risks must be addressed in an integrated and comprehensive manner.

Actions required by African decision-makers include:

1. Improving information, knowledge and communication systems;
2. Strengthening adaptation capacities at the local level;
3. Improving policy coherence and coordination at national and regional levels;
4. Identifying financing opportunities.

C. GUIDELINES FOR RESILIENCE AND ADAPTATION TO CLIMATE CHANGE ACCORDING TO SNEB-PA

DOCUMENT	ABOUT CLIMATE CHANGE
SNEB-PA (2023 – 2025)	Axis 4 - Development of the blue economy through intersectorality and an integrated approach) : <ul style="list-style-type: none">• It is mentioned that climate change must be taken into account as a driver for action.
	Page 12 (Basic principles for the implementation of the Blue Economy - Environmental and social sustainability) : <ul style="list-style-type: none">• Climate change and climate variability are mentioned as already having an impact on aquatic systems and food production in Madagascar. It is stressed that the country needs to strengthen the resilience of blue ecosystems and reduce the vulnerability of communities to climate change to ensure future food security and livelihoods.

D. STRATEGIC PRIORITIES OF THE FISHERIES SECTOR ACCORDING TO THE MADAGASCAR CLIMATE CHANGE ADAPTATION PLAN (PNA)

1. STRATEGIC PRIORITY 1: ESTABLISH MARINE RESERVES AND PROTECT CORALS AND MANGROVES:

- Carry out an inventory of coral reefs and their state of conservation;
- Support the process of protecting Marine Protected Areas including coral systems and mangroves with high conservation value;
- Develop a national programme for the restoration of degraded mangroves and promote their sustainable management;
- Conserve all coral reefs;
- Promote sustainable management of aquatic resources and aquaculture.

2. STRATEGIC PRIORITY 2: DEVELOP AND POPULARIZE NEW FISHING TECHNIQUES

- Know the stocks in each current area based on an improved and updated statistical system;
- Develop new research for high commercial value fishery segments ;
- Restructure and regulate small-scale national fishing;
- Develop and promote fish farming, aquaculture, the development of other marine resources (oysters, sea cucumbers, algae, etc.);
- Hold an international/national/regional consultation process for decision-making on development measures.

3. STRATEGIC PRIORITY 3: DEVELOP EARLY WEATHER WARNING SYSTEMS FOR FISHERMEN

This involves strengthening the Early Warning System (EWS) and monitoring the dynamics of local population mobility with the BNGRC and across all coastal regions.

4. STRATEGIC PRIORITY 4: PROFESSIONALIZING FISHERMEN'S JOBS AND STRENGTHENING THEIR MANAGERIAL CAPACITY

- Integrate fishermen into fishermen's groups and a consultation platform so that they can take ownership of the concept of sustainable development of their activities.

This involves supporting the type of organization such as LMMAs (Locally Managed Marine Areas) which are marine areas managed by communities and for communities, in order to protect biodiversity and marine resources for the promotion of sustainable fishing.

- Develop a capacity building program for associations.

Table 4: Summary of the national climate change adaptation plan

Impacts on	vulnerabilities and risks related to climate change	Anticipated risks	Mitigation measures proposed by the NAP
Country	Climate risks are very high and include food insecurity, increased poverty, degraded infrastructure,	Varies by region and includes impacts such as soil erosion, reduced agricultural productivity,	Building resilience through improving infrastructure, promoting sustainable agricultural

Impacts on	vulnerabilities and risks related to climate change	Anticipated risks	Mitigation measures proposed by the NAP
	and negative impacts on public health from extreme climate events such as rising temperatures, decreased rainfall, more intense tropical cyclones, and rising sea levels.	water shortages, increased vector-borne diseases, and damage to infrastructure.	practices, water resource management, and improving institutional capacities for climate risk management
Aquatic ecosystems	Vulnerability is very high: aquatic ecosystems are threatened by coral bleaching, degradation of mangroves, and salinization of groundwater due to rising sea levels.	Loss of marine biodiversity, reduced fisheries productivity, and reduced capacity of these ecosystems to play their role as natural nurseries and barriers against coastal erosion.	Conservation and restoration of mangroves and coral reefs, development of marine reserves, and improvement of fisheries resource management
Fishing and aquaculture	Risks are moderate, with fisheries and aquaculture sectors vulnerable to rising water temperatures,	Reduced fish stocks, loss of income for fishing-dependent communities, and negative	Measures include promoting new fishing techniques, developing sustainable fish farming and

Impacts on	vulnerabilities and risks related to climate change	Anticipated risks	Mitigation measures proposed by the NAP
	more frequent and intense storms, and rising sea levels, which affect breeding habitats and fish stocks.	impacts on food security.	aquaculture, creating fish aggregating devices, and strengthening fisheries management and monitoring. Timeline shift

E. SECTORAL POLICY AND NATIONAL AGRICULTURAL, LIVESTOCK AND FISHERIES INVESTMENT PLAN OF MADAGASCAR (PSAEP/PNIAEP) 2016-2020

In Madagascar, the AEP sector is the pivotal area for poverty reduction and food and nutritional security.

The country's vision for the AEP sector is as follows:

"Madagascar in 2025, relies on competitive and sustainable agricultural production, integrating family farms and modernized processing units to ensure food security and conquer export markets." (PSAEP/PNIAEP, 2016-2020).

In total, 5 programs have been defined for the PNIAEP of Madagascar:

1. P1. Rational and sustainable exploitation of production spaces and resources;

2. P2. Sustained improvement of productivity and promotion of competitive production systems;
3. P3. Contribution to food security and nutritional improvement and risk reduction for the vulnerable;
4. P4. Improving access to national markets and repositioning exports;
5. P5. Improving the governance of institutions and strengthening the capacity of stakeholders.

F. STRATEGIC PRIORITIES OF THE FISHERIES SECTOR ACCORDING TO THE NATIONAL INVESTMENT PLAN IN FAVOUR OF THE BLUE ECONOMY (PNIEB)

The PNIEB was designed based on the strategic orientations contained in the SMEB. It is structured around the 5 strategic axes of the SMEB which are:

1. AXIS 1: IMPROVING BLUE GOVERNANCE

It is structured around five programs which are:

- Program 1.1: definition of the scope of the BE,
- Programme 1.2: Intra- and inter-sectoral coordination as a fundamental structuring element of the implementation of BE;
- Programme 1.3: consolidation of the legislative and regulatory framework;
- Program 1.4: Improving knowledge, expertise and tools specific to EB such as blue accounting;
- Program 1.5: Financing.

2. AXIS 2: PROMOTION AND ENHANCEMENT OF NATURAL RESOURCES IN RELATION TO THE ENVIRONMENT

This axis affects the Fishing and Aquaculture sector within the framework of the governance of living resources with 6 programs:

- Program 2.1. Strengthening the protection of ecosystems;
- Programme 2.2. Re-estimation of fishing potential and fight against IUU fishing;
- Program 2.3. Development of aquaculture;
- Program 2.4. Mobilization of stakeholders in the value chain;
- Program 2.5. Promotion of transformation and enhancement processes in the value chain ;
- Program. 2.6. Regional collaboration, standardization and labeling of the processes used.

3. AXIS 3: DEVELOPMENT OF INFRASTRUCTURES AND SERVICES FOR THE PROMOTION OF THE BLUE ECONOMY

It is structured around the following four programs:

- Program 3.1: Coastal and marine spatial planning for sustainable development preserving Madagascar's natural heritage and its comparative advantages;
- Program 3.2: Opening up coastal areas and establishing a maritime transport network to support the development of the BE;
- Program 3.3: Restoration, construction of works and development of associated services in each maritime region
- Program 3.4: Monitoring and foresight in the service of BE and the promotion of innovative coastal territories.

4. AXIS 4: IMPROVING THE AVAILABILITY OF WATER AND RENEWABLE ENERGY AND DEVELOPING THERMAL POTENTIAL

It is structured around five programs which are:

- Program 4.1: Strengthening the water retention system

- Program 4.2: desalination for drinking water,
- Program 4.3: Minimizing water pollution
- Program 4.4: the development of thermal potential
- Program 4.5: promotion of sites suitable for renewable energies linked to fresh water and marine water.

5. AXIS 5: REDUCING THE VULNERABILITY OF ACTIVITIES AND ADAPTING TO THE IMPACTS OF CLIMATE CHANGE

Resilience consists of (i) mitigating the impacts of climate change on environments through artificial or nature-based infrastructures, (ii) ensuring the effectiveness of MPA protection, (iii) improving prevention and preparation for natural disasters through a monitoring and alert system.

The three key programs associated with strategic axis 5 are as follows:

- Program 5.1. Mitigation of climate change impacts
- Programme 5.2. Improving the effectiveness of marine protected areas
- Program 5.3. Implementation of a monitoring and alert system

G. IMPLEMENTATION OF PRIORITY ACTIONS FOR RESILIENCE TO CLIMATE CHANGE

In accordance with the three pillars of the general policy of the Malagasy State for development including: human capital, industrialization and economic transformation and good governance , the Ministry in charge of Fisheries and Aquaculture of Madagascar currently has the vision of making the fisheries and aquaculture sector a pillar of the economic emergence of Madagascar by 2030

through the development of the blue economy and the improvement of governance.

To this end, the Government of Madagascar has entrusted the MPEB, in collaboration with partners from the private sector and civil society, with the mission of designing, implementing and coordinating the General State Policy relating to the Promotion of the Blue Economy and the sustainable, fair, equitable and responsible use of marine and fisheries resources, including the contribution to food and nutritional security and improving resilience to climate change.

In terms of implementation, Madagascar was able to (i) distribute 3000 SAPs ⁸for all coastal regions of the big island thanks to the SWIOFISH 2 project financed by the World Bank, (ii) put in place measures to encourage artisanal fishing such as improving port infrastructure and granting subsidies for the purchase of boats and fishing equipment (sea safety kits), (iii) also encourage the development of aquaculture to increase fish production and reduce pressure on wild fish stocks such as subsidizing farmers for the installation of aquaculture farms and organizing free training programs offered by the MPEB team and its partners to improve the skills of fish farmers as well as the establishment of Fish Emergence Zones (ZEP) in all regions of the big island and (iv) set up marine protected areas to preserve marine biodiversity and protect fish habitats.

⁸The SAP is a system for anticipating an appropriate and timely humanitarian response to exposed populations.

Efforts are also being made to combat IUU fishing and overfishing, including (v) establishing fishing quotas and regulating the minimum size of fish caught; (vi) developing fish and aquatic product exports by improving product quality and meeting international standards and the supply chain and product quality, including by developing infrastructure for product processing and preservation.

All these initiatives deserve to be supported until their effective execution for a better implementation. The following proposed investment plan focuses on how we will continue to finance these prioritized projects.

H. CLIMATE CHANGE RISK MITIGATION MEASURES FOR THE FISHERIES AND AQUACULTURE SECTOR

The fisheries and aquaculture sector is under pressure from climate actions (drought, flooding, poor spatial and temporal distribution of rainfall) which lead to a degradation of aquatic ecosystems, habitats of bioaquatic resources. As an illustration, the table below shows the influence of certain climatic parameters having an implication on fishery resources as well as on fisheries and aquaculture activities.

Table 5: RISKS AND IMPACTS OF CLIMATE CHANGE ON FISHERIES AND AQUACULTURE

Causes	Biophysical Impacts	Implications	Proposed risk mitigation measures
Modifications surface water	Increase in surface water	Reduction of fish stocks in	Strengthening adaptive

Causes	Biophysical Impacts	Implications	Proposed risk mitigation measures
temperature	temperature that can affect marine ecosystems, changing habitats for fish species and disrupting food chains. This can cause species to move to colder waters, alter breeding periods, and affect the survival of fish larvae and other aquatic organisms. Coral bleaching	some traditional fishing areas, directly affecting the livelihoods of coastal fishing communities. In addition, increasing temperatures can promote the proliferation of invasive species and aquatic diseases.	fisheries management, diversifying target species to include those more resilient to temperature, and protecting critical habitats such as mangroves and coral reefs that serve as natural refuges for certain species. Coral farming while seeking resilient species and use of artificial reefs
El Niño-South Oscillation (marine)	El Niño and its variations can cause temperature and precipitation anomalies, affecting ocean currents,	Increased variability in fisheries catches, with periods of low yield followed by unpredictable fluctuations,	Development of El Niño event forecasting systems to better plan fishing activities, and improvement of stock

Causes	Biophysical Impacts	Implications	Proposed risk mitigation measures
	nutrient distribution and marine productivity. This can lead to mass mortalities in some fisheries and reduce the biomass of some fish species.	jeopardizing the food security of fisheries-dependent communities.	management practices to increase resilience to climate variations.
Sea level rise	Rising sea levels lead to coastal and nearshore erosion, loss of critical habitats such as mangroves and coral reefs, and salinization of coastal wetlands and groundwater.	Decrease in coastal fishing areas, displacement of fishing activities, and degradation of fishing and aquaculture infrastructure (e.g. ports, landing areas). Increased risks to coastal communities due to saline intrusion affecting freshwater	Strengthening coastal infrastructure, implementing nature-based solutions such as mangrove restoration, and adopting brackish water aquaculture practices adapted to new saline conditions. Establishing mitigation and resilient infrastructure

Causes	Biophysical Impacts	Implications	Proposed risk mitigation measures
		resources. Socio-economic degradation of coastal cities	
Upper inland waters Temperatures (Fresh Water)	Increased temperatures of inland waters affect fish physiology, reduce dissolved oxygen concentration; Promotes the growth of harmful algae and aquatic pathogens.	Area of Predilection: Change in resource distribution; Increased mortality of fish in freshwater aquaculture systems, reduced productivity of aquatic species, and negative economic impacts on fish farming communities.	Improved water management in aquaculture (e.g. cooling systems, aeration management), use of heat-tolerant fish strains, and diversification towards species adapted to higher temperatures.
Changes in precipitation and water availability (Fresh and Marine)	Changes in precipitation patterns affect freshwater availability and	Decreased production and productivity of freshwater aquaculture,	Improving freshwater management through reservoirs and

Causes	Biophysical Impacts	Implications	Proposed risk mitigation measures
	quality, disrupting freshwater and coastal ecosystems, and altering salinity and nutrients in marine habitats. Limited fish farming practice	loss of natural fish habitats, and negative impacts on coastal fisheries activities due to water pollution from land-based runoff.	dams, adopting agricultural and aquaculture techniques adapted to variable water conditions, and promoting soil conservation practices to reduce runoff.
Increased frequency and/or intensity storms and wind (Marine and Coastal Environments)	Increased intensity and frequency of storms or "Tiomena", causing physical damage to aquatic habitats (coral reefs, mangroves), leading to disruption, damaging fishing and	Loss of income for fishermen and aquaculture farmers due to business interruption, damage to infrastructure, and increased repair and recovery costs after storms.	Establishing early warning systems, strengthening storm infrastructure, and developing risk management plans to minimize economic losses. Planning and preparation for

Causes	Biophysical Impacts	Implications	Proposed risk mitigation measures
	aquaculture infrastructure.		storms and cyclones
Drought (Fresh and Marine Water)	Prolonged drought reduces the availability of freshwater for aquaculture, increases salinity in estuaries, and affects water quality in marine and freshwater habitats.	Reduced aquaculture productivity, decreased inland and coastal fisheries catches, and negative impacts on aquatic biodiversity.	Efficient management of water resources, development of rainwater harvesting systems, use of drought-resistant fish varieties, and promotion of integrated aquaculture using less water.

I. STANDARD INVESTMENT PLAN TO IMPROVE MADAGASCAR'S CLIMATE CHANGE RESILIENCE POLICY IN FAVOUR OF THE FISHERIES AND AQUACULTURE SUB-SECTOR

In terms of adaptation and resilience to climate change, Program 3 of the PNIAEP and axis 5 of the PNIEB are perfectly aligned with the strategic priorities detailed by the PNA.

The total of the PNIAEP Program from 2016 to 2020, a period of 5 years, amounts to 9,258.264 billion Ariary, or the equivalent of 3.193 billion USD. The Agricultural, Livestock and Fisheries Sector Policy letter stated that in the face of the acceleration of poverty since the crisis, with a poverty rate estimated at 82% of the population, poverty reduction will be prioritized in the short term in the Government's policy by devoting 70% of public investments to it. During this period, the remaining 30% will be allocated to the revival of production and the preparation of medium-term strategies. To this end, priority will be given to economic growth by allocating 60% of public investments to it.

This policy, de facto, translates into an orientation of the budgetary volume, during the first phase of the PSAEP/PNIAEP, to support the P2 and P3 programs, relating respectively to the continuous increase in productivity and the promotion of competitive production systems and the contribution to food security and nutritional improvement and risk reduction.

With regard to the development of fisheries, the PNIEB integrates the cost estimates of pre-feasibility studies on critical infrastructures chosen by Madagascar as priorities for the fisheries sub-sector, including the rehabilitation of the Majunga Fisheries Products Distribution Center (CDPHM), the establishment of infrastructures for the processing and conservation of fisheries products as well as the purchase of boat equipment to upgrade the small-scale fisheries of Madagascar as they are artisanal (modernization).

Concerning the development of Aquaculture, the investment guide recently developed by the MPEB in collaboration with the National Agency for the Promotion of Investments, the EDBM and with the

support of the FAO, highlights all the considerable aquaculture potential as well as the investment opportunities in Aquaculture available in Madagascar to guide national and international actors wishing to invest in the Aquaculture sector, without forgetting to continue to finance projects to set up 70 ZEP throughout the big island by 2030.

PARTIAL CONCLUSION II

In addition to the PSAEP/PNIAEP 2016 - 2020, Madagascar had the opportunity to develop an investment plan for the Blue Economy (PNIEB) 2023 - 2033. Despite this update, these two national investment plans are complementary and perfectly align with the priority axes of the National Climate Change Adaptation Plan (PNA) and even more so with the African PFRS since the PNIEB is based on the SMEB which is a global reference document and consistent with the PDDAA.

So once again, for Madagascar, it is above all a question of continuing efforts on the implementation of all these plans coming from the strategies with well-defined indicators.

And to strengthen the PNIAEP and to promote national reforms consistent with the African PFRS, we will suggest that the following climate change risk mitigation measures also be prioritized by Madagascar, namely:

- i. Capitalize and disseminate production data in Fishing and Aquaculture as well as achievements in increasing community resilience.



- ii. Continue research into techniques and technologies that can mitigate risks.
- iii. Implement the support mechanism for victims of climate hazards.
- iv. Take into account the national risk and disaster management strategy throughout the implementation of the programme.
- v. Work closely with the Ministry of Forests and the Environment, Ecology and the Sea on the implementation of reforestation programs, watershed protection and the fight against climate change.

GENERAL CONCLUSION

In accordance with its PGE, Madagascar is among the many countries that value its fisheries resources. Its challenge is to ensure that the fisheries and aquaculture sector becomes the pillar of economic emergence by 2030 through the development of the blue economy and the improvement of governance.

All necessary strategic documents are currently being developed with development plans including well-defined indicators. In addition, this study has demonstrated that among the 25 international instruments classified as relevant for the development of fisheries and aquaculture in AU Member States, 21 have already all been ratified by Madagascar. National policies as well as strategic documents (Law 2018-026 on the overhaul of certain provisions of this Fisheries and Aquaculture Code) Aquaculture , SNEB, SNDAM, PAN-PP and PNIEB) have recently been updated to align with the majority of these ratified international instruments and are in the process of ratification.

Concerning the investment plan, the complementarity between the PSAEP/PNIAEP 2016 – 2020 and the PNIEB 2023 – 2033 as well as their perfect alignment with the PNIA and the African PFRS will facilitate the prioritization of activities relating to climate change risk mitigation measures.

Thus, the acceleration of the reform for the development of fisheries and aquaculture in Madagascar only depends on the effective implementation of all these instruments and strategies put in place (

in a universally coherent manner) in which each stakeholder has its role to play, whether public or private.

At the end of this work, we would like to express our thanks to all the resource persons who are also qualified as stakeholders in this study. Without their contribution, moving on to the next stage would not have been possible. We will come back to them again for the final stage of this exercise during the deliverable validation workshop.

Together we will go far !



APPENDIX

1. List of people consulted

	Name	Position	Contact details
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2. Main Survey Results (Completed Survey Sheet)

SITUATION DE MADAGASCAR PAR RAPPORT AUX INSTRUMENTS INTERNATIONAUX LIES AUX FILIÈRES PÊCHE ET AQUACULTURE

No .	International instruments	Category (binding or not)	Status of ratification and date	Status of Domestication and date	Connection with: the Law and National Policies on Fisheries & Aquaculture	Focal Point (Names/First names + Contact details)
01	AMREP ⁹ /PSMA	YES	joined in 2017 and implemented since 2018 with the support of FAO	Materialized by: The Port State Measures Support Project implemented by <i>Stop IllegalFishing (SIF)</i>	<ul style="list-style-type: none"> - The National Strategy and Action Plan to effectively fulfill Madagascar's international obligations as a flag, port, coastal and market State to combat IUU fishing. - The Decree on Port State Measures, and strengthening its fisheries monitoring, control and surveillance systems and procedures. 	
02	CCPR ¹⁰	YES	Yes in 1971		SNDAM/1st ^{axis} , 5th DA: Improving access to financing for national economic operators in the aquaculture sector	
03	WTO Agreement	No				
04	CTOI Resolution	Yes	Ratified because Madagascar is a		Resolution 16/11 adopted long ago but especially by Tuna	

⁹Port State Measures Agreement

¹⁰Code of Conduct for Responsible Fishing

			member country			
05	CBD	Yes	Ratification in 1996-06-02		SNDAM/1st ^{axis} , 3rd DA: Establishment of a supportive environment for seed production according to quality standards and meeting market needs	
06	DV-PPD/FAO ¹¹	No				
07	DV-AD/FAO ¹²	No			The 6 Guiding Principles to guide the public action of the SNDAM correspond perfectly to the 4 levers for sustainable development of aquaculture	
09	IPOA INN Regulations	No	Recommended	PAN-INN adopted in the process of validation		
10	UNFSA /ANUP ¹³	Yes				
11	CITES Convention	Yes			SNDAM/3rd ^{axis} : 4th DA: Regional and international cooperation	MEDD
12	NAIROBI Convention	No			SNDAM/3rd ^{axis} : 4th DA: Regional and international cooperation	Mr. JacquisRasoanaina jacquis415@gmail.com
13	RAMSAR Convention	Yes			SNDAM/3rd ^{axis} : 4th DA: Regional and international cooperation	NARISOA Andoniaina andoniaina.narisoa@gmail.com
14	MARPOL Convention	Yes	• Ratified in 2004	• Decree No. 2004-1018 Ratifying the	Law No. 2017-037 Authorizing the Accession of Madagascar to the 1997	APMF

¹¹Voluntary Guidelines for Sustainable Small-Scale Fisheries Development

¹²Voluntary Guidelines for the Development of Sustainable Aquaculture

¹³United Nations Fish Stocks Agreement

			<ul style="list-style-type: none"> Madagascar's accession to the 1997 Protocol in 2018 	<p>International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL 73188) and its annexes.</p> <ul style="list-style-type: none"> Decree No. 2018-393 on the Accession of Madagascar to the 1997 Protocol to the International Convention for the Prevention of Pollution from Ships of 1973, as amended by the 1978 Protocol relating thereto (1997 MARPOL Protocol). 	<p>Protocol to the International Convention for the Prevention of Pollution from Ships of 1973, as amended by the 1978 Protocol relating thereto (1997 MARPOL Protocol).</p>	
15	ILO Convention	Yes	Ratification in 2024		SNDAM/Focus on Decent Work and Economic Growth 9. Industry, Innovation and Infrastructure	
16	CARTAGENA Protocol ¹⁴	Yes	Ratification in 2004-02-22		1st axis: SNDAM/1st DA: Determination and	Mrs. AgnesRaherimalala

¹⁴Protocol on the prevention of biotechnological risks

					communication around adapted production systems	araherimalala@yahoo.fr
17	NAGOYA Protocol ¹⁵	Yes	2014-10-12	Decree No. 2017-066 of 01/31/2017 regulating access and benefit sharing arising from the use of genetic resources.	SNDAM/1st ^{axis} , 3rd DA: Establishment of a supportive environment for seed production according to quality standards and meeting market needs	Ms. LolonaRamamonjisoa Ranaivosoa lolona.ramamonjisoa@gmail.com
18	United Nations SDGs	Yes			The SNDAM responds to the SDGs: 1. No Poverty 2. Zero hunger 3. Good Health and Well-being 5. Gender equality 8. Decent work and economic growth 9. Industry, Innovation and Infrastructure 10. Reduced inequalities 17. Partnerships for achieving objectives	
20	DV-SDC/VG-CDS ¹⁶	No		Implementation in progress (text already developed Decree 2024-.....on PSMA, SWIOFC, IPOA INN, CDS, VMS...		
21	UNCLOS	Yes		Law No. 2004-019 Implementing international		

¹⁵Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS)

¹⁶Voluntary Guideline for the Capture Documentation System

				conventions relating to the protection of the marine and coastal environment against pollution by oil spills.		
22	"OPRC 90" ¹⁷	Yes		Law No. 2004-019 of 19 August 2004 – chap. 5. Implementing international conventions on the protection of the marine and coastal environment against pollution by oil spills.		
23	or "CLC 92" ¹⁸	Yes		Law 2004-019 of August 19, 2004 Chap. 3		
24	FIPOL or "FC 92"	Yes		Law 2004-019 of August 19, 2004 Chap. 4		
25	STCW AIS (GPS type) versus VMS (more detailed vessel detection access by flag)		Ratified	Domesticated and applied by APMF	Purpose: The Convention prescribes minimum standards for seafarers' training, certification and watchkeeping that countries are required to meet or exceed.	STCW AIS (GPS type) versus VMS (more detailed vessel detection access by flag state and coastal state)

¹⁷International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990

¹⁸International Convention on Civil Liability for Oil Pollution Damage, 1992

¹⁹International Convention of 1992 on the establishment of an International Fund for Compensation for Oil Pollution Damage .

	state and coastal state)					
	United Nations Framework Convention on Climate Change	KYOTO Protocol	Law No. 2003-009 of September 3, 2003 authorizing the ratification of the Kyoto Protocol			
		Paris Climate Agreement	<ul style="list-style-type: none"> - Law No. 2016-019 of August 10, 2016 authorizing the ratification of the Paris Agreement of the United Nations Framework Convention on Climate Change. - Decree No. 2016-1188 of September 9, 2016 ratifying the Paris Agreement of the United Nations Framework Convention on 	<ul style="list-style-type: none"> - Preparation of the initial national communication - Preparation of the Second National Communication - Preparation of the Third National Communication (in progress) - Creation of the structure for the Clean Development Mechanism: National Authority 	<ul style="list-style-type: none"> - Order No. 1142 /10/MEF of 23/02/2010 reforming the Designated National Authority (AND) for Kyoto Clean Development Mechanism (CDM) projects as well as other carbon markets in Madagascar within the Ministry of the Environment and Forests. - Decision No. 008 /10-MEF of 03/09/2010 appointing and defining the tasks of the Members of the National Authority Designated for the Projects of the Clean Development Mechanism of the Kyoto Protocol as well as other carbon markets in Madagascar within the Ministry of the Environment and Forests. 	

			Climate Change.	<ul style="list-style-type: none"> - Designated - Development of the National Adaptation Action Programme (NAPA) - Development of National Mitigation Actions (list of Actions) - Development of the National CDM Strategy - Creation of the National Climate Change Coordination Office within the MEEF (2015) - Development of the National Policy for the fight against Climate Change - Development of an 		
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				<p>Adaptation project (PANA) financed by adaptation funds for the PMA.</p> <ul style="list-style-type: none"> - Development of a document relating to the Nationally Determined Contribution (NDC) for the Paris Agreement - Development of Adaptation projects financed by adaptation funds for LDCs (Least Developed Countries) - Development of climate change mitigation/adaptation projects financed by 		
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				<p>the Green Climate Fund</p> <ul style="list-style-type: none"> - Implementation of a project on adaptation to climate change and coastal zone management - Development of a National Adaptation Plan (NAP). NAP is a document describing priority medium/long term adaptation actions - Implementation of a renewable energy project 		
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3. Investigation sheet relating to:

a) Alignment of PSAEP/PNIAEP with climate change and environmental management

- Does your country have a: (Yes/ No-. If yes, give the title, reference and share the copy and or URL
- How does the national climate change adaptation plan describe and qualify (e.g. high, low risk) the
- What do national fisheries and aquaculture development policies/plans say about climate change? You may include other relevant documents/policies that influence fisheries and aquaculture development in your country.
- Can you detail the risks and impacts of climate change identified in the above documents for fisheries and aquaculture?
- Are the following issues addressed in the National Environmental Management Policy and Plan and the National Agricultural Investment Plan?

Stake	Indicate how it is addressed in the National Environmental Action Plan (NAP)	Indicate how it is treated in the PNIAEP	Remarks
Higher inland water temperatures			
Changes in precipitation and water availability			
Drought			
Cyclone			

- What is your SWOT analysis of the PNIAEP on issues related to climate change, environmental management and related policies for fisheries and aquaculture?

b) Harmonization of PNAI and PAIR with climate change and environmental management

1. Does your country have: (Yes/No. If yes, please provide title, reference and share a copy/URL link)

- National plan for adaptation to climate change
- National Fisheries and Aquaculture Development Policy and Plan
- National Environmental Management Policy and Plan
- National Agricultural Investment Plan

2. What does the National Climate Change Adaptation Plan describe and qualify (e.g., high, low risk) for:

	vulnerabilities and risks related to climate change	Anticipated risks	Proposed mitigation measures
Overall/generally for the country			
Aquatic ecosystems			
Fishing and aquaculture			

3. What do the national fisheries and aquaculture development policies and plans say about climate change? *May include other relevant documents/policies that influence fisheries and aquaculture development in your country*

Name and reference	Cite what the document says about climate change in the sector (e.g. nothing,	Note, if applicable
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of the document	mentions 'climate change under sections..., page#)	

4. Could you please clarify the risks and impacts of climate change identified in the above documents for fisheries and aquaculture in the table below: (please specify if this is a freshwater/marine aquatic environment)

Drivers	Biophysical Impacts	Implications	Proposed Measures	Risk Reduction
Modifications surface water temperature				
El Niño-South Oscillation				
Sea level rise				
Upper inland waters temperatures				
Changes in precipitation and water availability				
Increased frequency and/or intensity of storms				
Drought				

4. List of priority international instruments for domestication by AU-BIRA/FISHGOV 2

No.	International Instruments on Fisheries Regulation	Legally binding
1.	1982 United Nations Convention on Law of the Sea (<i>Law of the Sea Convention</i>)	Yes
2.	Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (Compliance Agreement)	Yes
3.	Port State Measures Agreement (<i>Port State Measures PSMA</i>)	Yes
4.	International Convention for the Conservation of Atlantic Tunas (<i>ICCAT Convention</i>)	Yes
5.	The UN Fish Stocks Agreement (<i>UNFSA 1995</i>)	Yes
6.	International Convention for the Regulation of Whaling	Yes
7.	ILO Work in Fishing Convention (2007) C188	Yes
8.	Code of Safety for Fishermen and Fishing Vessels, 1968 (<i>Code of Safety</i>)	No
9.	The Code of Conduct for Responsible Fisheries (<i>The Code</i>)	No
10.	International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (<i>IPOA-IUU</i>)	No
11.	Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (<i>Voluntary Guidelines SSF</i>)	No

No.	Instruments for environmental protection, pollution control and biodiversity	Legally binding
12.	United Nations Environment Regional Seas Programme (Sub-regional Conventions)	Yes
13.	International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 relating thereto (<i>MARPOL Convention</i>)	Yes
14.	Convention on International Trade in Endangered Species of Wild Fauna and Flora (<i>CITES</i>)	Yes
15.	Convention on Biological Diversity (<i>CBD</i>)	Yes
16.	Convention on Wetlands of International Importance especially as Waterfowl Habitat (<i>Ramsar Convention</i>)	Yes
17.	the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal	Yes
18.	Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade	Yes
19.	Convention on the Law of the Non-Navigational Uses of International Watercourses (The UN Watercourses Convention)	Yes
20.	United Nations Framework on Climate Change	Yes
21.	International Convention on the establishment of an international fund for compensation for oil pollution damage	Yes
22.	International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC)	Yes
23.	The International Convention for the Control and Management of Ships' Ballast Water and Sediments	Yes
No.	Other instruments	Legally binding
24.	Agreement on the Application of Sanitary and Phytosanitary Measures (<i>SPS</i>)	Yes
25.	Agreement on Technical Barriers to Trade (<i>TBT</i>)	Yes

5. Extract from the PNIAEP 2016 - 2020: Budget allocated by each sub-program

PROGRAMME	COUT TOTAL EN MILLIONS ARIARY PAR AN					
	2016	2017	2018	2019	2020	Total 2016 à 2020
P1. Exploitation rationnelle et durable des espaces de production et d'exploitation des ressources	255 847	335 819	562 716	817 390	1 078 662	3 050 435
1.1. Utiliser le foncier comme un atout aux producteurs	2 253	2 480	2 661	2 868	3 091	13 352
1.2. Préserver les ressources et faire des aménagements intégrés	253 594	333 339	560 056	814 522	1 075 571	3 037 083
P2. Amélioration soutenue de la productivité et de la promotion des systèmes de productions compétitifs	233 422	324 424	424 625	422 225	490 154	1 894 850
2.1. Renforcer les facteurs de production comme éléments clés de la croissance	77 536	136 165	171 591	212 492	252 964	850 748
2.2. Renforcer les Services aux Producteurs	69 762	91 323	156 450	103 718	123 774	545 028
2.3 Atténuer les risques liés aux catastrophes et aléas	76 710	78 134	80 507	86 801	99 311	421 464
2.4. Augmenter la production rizicole	9 413	18 802	16 077	19 214	14 104	77 610
P3. Contribution à la sécurisation alimentaire et nutritionnelle et la réduction des risques	417 387	540 312	633 684	771 739	948 434	3 311 556
3.1. Accroître la résilience et soutenir le renforcement nutritionnel	204 164	281 095	345 857	445 702	609 797	1 886 615
3.2. Mettre en place un environnement favorable pour l'émergence d'une Agriculture moderne pour les jeunes entrepreneurs ruraux	141 513	167 448	176 156	191 388	181 538	858 043
3.3. Normaliser les infrastructures des petits ou moyens producteurs	69 935	89 368	108 421	130 068	150 483	548 274
3.4. Diversifier les revenus	1 775	2 402	3 250	4 580	6 617	18 623
P4. Amélioration de l'accès aux marchés nationaux et repositionnement de l'exportation	102 019	134 175	167 078	199 946	241 484	844 702
4.1. Développer les marchés des produits Agricoles	34 289	54 240	72 111	82 262	98 502	341 405
4.2. Développer les filières porteuses	11 379	14 160	14 798	15 340	15 274	70 951
4.3. Mettre en relation durable le marché et la production	71	54	-	-	-	124
4.4. Augmenter la production rizicole	56 281	65 721	80 168	102 344	127 707	432 222
P5. Amélioration de la gouvernance des institutions et renforcement de la capacitation des acteurs	45 029	37 133	36 351	20 603	17 606	156 721
5.1. Développer un cadre institutionnel et réglementaire	4 973	5 763	6 045	8 794	5 191	30 765
5.2. Développer des outils de prise de décision et d'orientation	16 091	5 522	3 269	2 498	2 611	29 990
5.3. Renforcer la capacité des acteurs pour la mise en œuvre du PSAEP	23 965	25 848	27 037	9 310	9 805	95 965
Total en millions Ariary	1 053 704	1 371 863	1 824 454	2 231 902	2 776 341	9 258 264

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