

MADAGASCAR – NATIONAL ACTION PLAN

ON PREVENTION AND REDUCTION OF SEA-BASED MARINE PLASTIC LITTER (SBMPL)

2023 - 2026

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The information presented in this document does not (Norad) reflect the views of the IMO, FAO or Norwegian Norad.

ACRONYMS

ALDFG	Abandoned, Lost or otherwise Discarded Fishing Gear
APMF	Port, Maritime and Waterways Agency – Agence Portuaire, Maritime et Fluviale
CNGIZC	National Committee on Integrated Coastal Zone Management – Comité National de Gestion Intégrée des Zones Côtières
CNRE	National Research Center for the Environment – Centre National de Recherche pour l'Environnement
CSP	Fisheries Monitoring Center – Centre de Surveillance des Pêches
FAO	Food and Agriculture Organization of the United Nations
GloLitter	GloLitter Partnerships Project
IMO	International Maritime Organization
MEDD	Ministry of the Environment and Sustainable Development – Ministère de l'Environnement et du Développement Durable
MoU	Memorandum of Understanding
MPEB	Ministry of Fisheries and Blue Economy – Ministère de la Pêche et de l'Economie Bleue
MTM	Ministry of Transport and Meteorology – Ministère des Transports et de la Météorologie
NAP	National Action Plan
NFP	National Focal Point
NGO(s)	Non-Governmental Organization(s)
NTF	National Task Force
PCU(s)	Project Coordination Unit(s)
PSMA	Port State Measures Agreement
SBMPL	Sea-Based Marine Plastic Litter
VGMFG	Voluntary Guidelines on the Marking of Fishing Gear

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1. Introduction

Madagascar is an island-State, with 4 800 km of coastlines and 17 seaports, with 7 seaports open to international shipping, including fishing. The issue of Sea-Based Marine Plastic Litter (SBMPL) is a reality in Madagascar and needs to be addressed. The fishing activities throughout the vast maritime area under Madagascar's jurisdiction can be considered as the main source of SBMPL. Fishing is undertaken both by national and foreign vessels, and the lack of regulations or guidance on the marking of fishing gear can be thought of as the main cause of Abandoned, Lost or otherwise Discarded Fishing Gear (ALDFG) problems.

This National Action Plan (NAP) has been prepared following the GloLitter Country Status Assessment conducted in Madagascar, to address gaps, priorities and needs to more effectively prevent and reduce SBMPL. The plan has been prepared by the Ministry of Fisheries and Blue Economy (Ministère de la Pêche et de l'Economie Bleue – MPEB) with the contribution of the Ministry of Transport and Meteorology (Ministère des Transports et de la Météorologie – MTM), Ministry of the Environment and Sustainable Development (Ministère de l'Environnement et du Développement Durable – MEDD), the Port, Maritime and Waterways Agency (Agence Portuaire, Maritime et Fluviale – APMF), the National Committee on Integrated Coastal Zone Management (Comité National de Gestion Intégrée des Zones Côtières – CNGIZC), the Fisheries Monitoring Center (Centre de Surveillance des Pêches – CSP), and the National Research Center for the Environment (Centre National de Recherche pour l'Environnement – CNRE). The plan is designed for a period of 4 years, from 2023 to 2026. It identifies the main gaps in legal and policy frameworks as neither the current Maritime Code, nor the Fishing Code, nor the draft new Maritime Transport Code contain provisions on SBMPL.

It appears that legal and policy reforms need to be undertaken in order to take SBMPL issues into account, as well as to provide proper training to relevant governmental agents, and strengthen the cooperation with the private sector to ensure efficient implementation and monitoring of SBMPL management.

2. Objectives of the NAP

The purpose and the objectives of the NAP are to guide national actions on addressing SBMPL as follows:

- To address SBMPL through legal and policy development and efficient enforcement;
- To coordinate efforts at every level of Government, national and local, as well as private sector and NGOs;
- To promote sharing of best practices on SBMPL as well as encouraging regional and global cooperation, raising awareness and inciting behavioral change; and
- To document concrete steps in addressing SBMPL-based evidence from international, regional and local efforts.

3. Country context including geographical scope and current state of knowledge on SBMPL at National and Local levels

Madagascar is the 4th largest island in the world, with 590 000 km² of surface. Its population is around 27 500 000 and the fishing industry is one of the main sources of income. As an island, Madagascar is surrounded by the Indian Ocean on its east side and the Mozambique Channel on its west side.

A national policy on maritime transportation is currently under development. Although it addresses many aspects of shipping, including the protection and preservation of the marine environment from the adverse effects of shipping, the issue of SBMPL is not directly addressed. It can only be interpreted as partially treated under the implementation of MARPOL, but it is not sufficient. There is also a national policy on fisheries but it does not address the issue of SBMPL.

Madagascar has ratified MARPOL Annex V, the London Protocol and the Port State Measures Agreement (PSMA), but these instruments are not entirely implemented under the current legislation on shipping and on fisheries. A draft new Maritime Transport Code is under development and it contains provisions implementing MARPOL Annex V and the London Protocol.

4. Principles and approaches that should frame the implementation

The implementation of the NAP will obey fundamental environmental law principles:

- the precautionary approach: where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation. As such, preventive measures are to be taken when there are reasonable grounds for concern that substances or energy introduced, directly or indirectly, into the marine environment may bring about hazards to human health, harm living resources and marine ecosystems, damage amenities or interfere with other legitimate uses of the sea, even when there is no conclusive evidence of a causal relationship between the inputs and the effects;
- **the polluter pays principle**: adoption of necessary and appropriate legislation and enforcement such that costs of pollution prevention, control and reduction measures are to be borne by the polluter, with due regard to the public interest;
- the ecosystem approach: the comprehensive integrated management of human activities based on the best available scientific knowledge about the ecosystem and its dynamics, in order to identify and take action on influences which are critical to the health of the marine ecosystems, thereby achieving sustainable use of ecosystem goods and services and maintenance of ecosystems;
- **public and private participation**: to create awareness about the problem of SBMPL and ensure a sense of public ownership in order to build support for relevant measures;
- sustainable consumption and production: the use of goods and services that respond to basic needs and bring a better quality of life, while minimizing the use of natural resources, toxic materials and emissions of waste and pollutants over the life cycle; and

 best available knowledge and practices: actions and operational targets should be based on available knowledge of the predominant amounts, materials, items and sources of SBMPL found in Madagascar's maritime zones and take into account the social and economic costs of degradation compared to the cost and benefits of proposed measures.

5. Specific Actions, responsible authorities/agencies/ institutions, and timelines

Cross-departmental or cross-ministerial cooperation is very important to reduce SBMPL in sea areas under Madagascar's jurisdiction. The NAP should therefore be implemented with all relevant stakeholders, public and private, mainly the MPEB, the APMF, the MEDD, the Ministry in charge of scientific research, port authorities, NGOs and other private sector organizations.

The following are the main actions of the NAP:

- institutional actions: with the objective to establish a national platform to coordinate stakeholder participation in SBMPL management in the form of a national committee or a SBMPL working group which will advise and coordinate on appropriate actions for SBMPL management; the committee or the group should be composed of designated stakeholders' representatives;
- policy and legal actions: to review, evaluate and strengthen or enact new legislation to address SBMPL;
- existing legislation needs to be reviewed, updated or revised to provide necessary support for prevention and monitoring efforts;
- operational actions: to improve port reception facilities to effectively manage shipgenerated wastes, to improve the implementation of MARPOL Annex V mainly on garbage management plans on-board ships, and to identify probable hotspots for SBMPL (coastal tourism, aquaculture, fishing grounds, ...);
- education and outreach actions: develop human capacity and infrastructure by developing scientific and technical capacity in research and practice through education, training and knowledge exchange, increase enforcement capacity, produce communication materials;
- global and regional cooperation actions: maintain and strengthen cooperative relations with IMO and FAO, regional organizations such as Indian Ocean Commission, the Nairobi Convention; attract international technical assistance in control of SBMPL, receive models of management and technologies for the manufacture of environmentally friendly fishing gears; and
- private sector engagement actions: encourage private sector contributions to combat SBMPL, promote collaborative actions with private sector and the fisheries industry to implement measures addressing SBMPL issues, engage private sector in capacity building campaigns on SBMPL issues.

6. Monitoring progress

The progress of the implementation of the NAP will be closely monitored by the National Task Force (NTF) who will assign some specific tasks to precise departments, namely the Agence Portuaire, Maritime et Fluviale – Port, Maritime and Waterways Agency (APMF) and the MPEB. The NTF will meet every 1 to 3 months to check on implementation progress and will also report regularly to the GloLitter National Focal Point (NFP).

1. Actions related to the legal, policy and enforcement reforms

1.1. Review and update the draft National Maritime Transportation Policy and the existing fishing policy to include SBMPL

Existing and upcoming policies need to be reviewed and updated in order to build a framework to address SBMPL, including support for prevention and monitoring. Effectiveness of the policies needs to be evaluated on a regular basis and subsequent updates can be brought accordingly. The review and update process can be done through consultations of relevant stakeholders and workshops under the lead of the APMF for the maritime transportation policy and the MPEB for the fishing policy. External support would be helpful to organize a workshop on SBMPL policy development.

1.2. Update maritime transportation legislation and fishing legislation to include SBMPL

Existing legislations, such as the Fishing and Aquaculture Code and the Maritime Code, and upcoming legislations, such as the draft Maritime Transport Code, need to be updated as they are mostly silent around SBMPL. Updates should include specific provisions on SBMPL prevention and monitoring and their effectiveness should be evaluated periodically. The review process will be undertaken under the lead of the APMF for maritime legislation and the MPEB for fishing legislation, through consultations and workshops. External support would be helpful to organize a workshop on legal implementation of instruments and guidance related to SBMPL.

2. Actions related to institutional capacity and reforms

2.1. Establish a SBMPL monitoring programme

- 2.1.1. The monitoring programme includes: set up baseline data on SBMPL at the national level using developed methodologies and assessment criteria, and validate common methodologies, guidelines and reporting protocols for assessment and monitoring of SBMPL. Recommendations provided by international bodies such as the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) should be taken into consideration. The establishment of the monitoring programme would see the involvement of all stakeholders in the NTF.
- 2.1.2. Develop and implement a training programme for NGOs and the private sector in data collection and in monitoring: invite NGOs and private companies to actively collect data for the monitoring plan, train their officers and agents to protocol and data gathering procedures.

2.2. Adopt a programme to improve capacity of port reception facilities

The programme includes a survey of existing port reception facilities to identify priority areas for improvement and provide recommendations for interventions. This will address concerns by shipping industry partners on efficiencies of current operating procedures in some ports. The adoption of the programme would be under the lead of APMF in collaboration with NTF members, and specifically based on GloLitter Port Reception Guidance.

2.3. Adopt and implement a capacity building programme on MARPOL Annex V and London Protocol

Although ratified, MARPOL Annex V and London Protocol need to be effectively implemented through a capacity building programme addressed to inspectors and surveyors of the maritime administration and other relevant personnel, for both for onboard and onshore requirements of these instruments. The adoption of the programme would be under the lead of the APMF in collaboration with NTF members. External support would be helpful to organize a workshop around capacity building for MARPOL Annex V and London Protocol.

2.4. Adopt and implement a capacity building programme on the implementation of the FAO VGMFG

The FAO VGMFG needs to be effectively implemented through the training of fishing inspectors or surveyors on the technical aspects of these guidelines. The adoption of the capacity building programme would be under the lead of the MPEB in collaboration with NTF members. External support would be helpful to organize a workshop on the FAO VGMFG.

3. Actions related to education and outreach

3.1. Raise awareness on negative impacts of SBMPL

Awareness raising would be done by reaching out to stakeholders from the maritime and fishing industries as well as local communities on the negative impacts of SBMPL and disseminating best practices to address SBMPL. This would include the adoption of a calendar for the organization of national and local events to create awareness. External support would be helpful with providing flyers, brochures or other visual, audio and video contents.

3.2. Adopt a training for trainers programme on SBMPL

The programme involves the identification of individuals, involved in fishing and shipping, to spread best practices, based on GloLitter training packages on relevant issues, such as port reception facilities and implementation of MARPOL Annex V, to tackle SBMPL and to train them using a nationwide scheme.

3.3. Adopt a communication plan to communicate the role of SBMPL management authorities to the public

The communications plan aims at disseminating information on the existing laws and regulations on SBMPL, the implementing authorities and the monitoring and control processes. This can be done through multi-media advertising campaigns and national and local awareness events.

4. Actions related to regional and global cooperation

4.1. Identify channels of cooperation related to SBMPL through IMO and FAO

Madagascar is member State of both the IMO and the FAO and should use its membership to identify channels of cooperation, either with projects and partnerships within those organizations or bilaterally with another member State. Cooperation should be done by Memorandums of

Understanding (MoUs) with organizations, other States or other States' maritime and fishing administrations.

4.2. Research and sharing of information and data on SBMPL

Promote cooperation and partnership with research institutions to collect and exchange data and information and develop collaboration on tackling SBMPL through national and international events and meetings, and exchange visits. Cooperation should be undertaken through MoUs with national or foreign research institutions.

4.3. Invite international technical assistance and investment in control of SBMPL

Formulate and launch research projects on the scientific aspects of SBMPL especially on the assessment of pollution risks and impacts of SBMPL on marine ecosystems, the environment and human health; and on technologies and techniques for SBMPL processing and mitigation.

4.4. Develop a system for monitoring SBMPL based on remote sensing and image interpretation technologies

Seek international technical and financial cooperation to develop a system for monitoring SBMPL based on remote sensing and image interpretation technologies and a system of geographic information, such as GIS data, combined with artificial intelligence and local knowledge.

5. Actions related to private sector engagement

5.1. Develop incentives and disincentives for the private sector

Establish a system of incentives and penalties to ensure compliance with laws and regulations related to SBMPL and to encourage environmentally friendly corporate initiatives. There will be 2 types of incentives: financial and non-financial. Financial incentives include exemption or reduction of some administrative fees for active and proactive corporates and non-financial incentives include awards, recognition and others types of non-monetary rewards. The NTF will adopt document procedures on the development of incentives and the assessment of corporate initiatives. Disincentives include fines and other monetary penalties.

5.2. Promote cooperation with the private sector

Create and/or increase private sector partnerships in awareness in helping companies to adopt behaviours that prevent SBMPL, particularly aimed at fishing companies, shipowners, fishing products dealers and exporters. Cooperation agreements/partnerships are to be adopted with private sector actors and can be undertaken under two types: mutual collaboration, where the private sector will support the NTF or the NFP to achieve identified goals on SBMPL; or sponsorships, where there is a financial contribution from the private sector to support the NTF's or the NFP's identified goals in addressing SBMPL.

MADAGASCAR NAP

n	Description	Priority Level (high, medium, Iow)	Responsible authority	Start Date	End Date	Resources required (staff, tech, etc.)	Progress indicators	Methods of verification	
1.			Actions re	lated to the	e legal and	l policy reforms			
Action 1	Review and update the draft National Maritime Transportation Policy and the existing fishing policy to include SBMPL	High	Shipping policy: APMF as lead agency and other members of NTF Fishing policy: MPEB as lead agency and other members of NTF	03/2023	12/2023	Staff, budget for workshops <u>External support</u> required to provide expert or consultant on the development of SBMPL related policy/strategy	Updated draft maritime policy formulated by APMF, Updated fishing policy formulated by MPEB	Updated draft policies validated by NTF and adopted by Government	
Action 2	Update maritime transportation legislation and fishing legislation to include SBMPL	High	APMF for maritime legislation, MPEB for fishing legislation	03/2023	12/2024	Staff, budget for national and local workshops <u>External support</u> required to provide expert(s) on legislation or a legal consultant on SBMPL and the organization of a national workshop	Workshop on legal review organized (virtual or in-person) Updated maritime transportation legislation formulated by APMF Updated fishing legislation formulated by MPEB	Updated legislations validated by NTF and adopted by Government	
2.		Actions related to institutional capacity and reforms							

Action 1	Establish a SBMPL monitoring programme	Medium	NTF	03/2023	12/2023	Staff, experts, workshops	Workshop organized Monitoring programme adopted by NTF	Progress reports on implementation to be sent to NFP every 3 months
	Develop and implement a training programme for NGOs and private sector in SBMPL data collection and in monitoring	Medium	NTF	06/2023	12/2025	Staff, experts, workshops <u>External support</u> <u>required to</u> support on expert(s) and the organization of workshop(s)	Training programme adopted by NTF, Training workshops organized	Documents and reports sent to NFP every 6 months
Action 2	Adopt a programme to improve capacity of port reception facilities	High	Lead agency: APMF In collaboration with NTF	03/2023	12/2023	Staff, experts, inspectors' training, workshops <u>External support</u> required to provide training materials: the GLoLitter Port Reception Facilities Guidance, expert(s) and the organization of training workshop(s)	National and local workshop organized, Programme adopted by NTF	Progress reports on implementation to be sent to NFP every 3 months
Action 3	Adopt and implement a capacity building programme on MARPOL Annex V and London Protocol	High	Lead agency: APMF In collaboration with NTF	03/2023	12/2023	Staff, experts, maritime inspectors and surveyors training, workshops <u>External support</u> <u>required to provide</u> expert(s) and the organization of workshop(s)	Programme adopted by NTF, Training workshops organized	Capacity building training reports sent to NFP every 6 months

Action 4	Adopt and implement a capacity building programme on the implementation of the FAO VGMFG	High	Lead agency: MPEB in collaboration with NTF	03/2023	06/2024	Staff, experts, fishing inspectors and surveyors training, workshops <u>External support</u> <u>required to</u> provide expert(s) and workshop(s)	Programme adopted by NTF, Training workshops organized	Capacity building training reports sent to NFP every 6 months
3.			Actions re	elated to e	ducation a	nd outreach		
Action 1	Raise awareness on negative impacts of SBMPL	Medium	NTF	03/2023	12/2025	Staff, experts, visual, audio and video contents <u>External support</u> <u>required to provide</u> multimedia content on SBMPL	National and local workshops organized	Awareness raising meeting/worksh op reports sent to NFP every 3 to 6 months
Action 2	Adopt a training for trainers programme on SBMPL	Medium	NTF	03/2023	12/2025	Staff, experts, workshops <u>External support</u> required to develop training packages on SBMPL, experts, training workshops	Training programme adopted by NTF Workshops organized	Training workshop reports sent to NFP every 6 months
Action 3	Adopt a communications plan to communicate the role of SBMPL management authorities to the public	Medium	NTF	03/2023	12/2025	Staff, experts, workshops	Communications plan adopted by NTF, Workshops and events organized	Workshops and event reports sent to NFP every 6 months

4.	Actions related to regional and global cooperation									
Action 1	Identify channels of cooperation related to SBMPL through IMO and FAO	Medium	NTF	03/2023	12/2025	Staff, technical and financial partners <u>External support</u> <u>required to</u> support on networking	Draft MoU validated by NTF MoU(s) signed	Signed MoU(s) sent to NFP		
Action 2	Research and sharing of information and data on SBMPL	Medium	NTF	03/2023	12/2025	Staff, technical and financial partners	Draft MoU validated by NTF MoU(s) signed	Signed MoU(s) sent to NFP		
Action 3	Invite international technical assistance and investment in the control of SBMPL	High	NTF	03/2023	12/2025	Staff, technical and financial partners <u>External support</u> <u>required to</u> support on partnering on various aspects such as technical, research or financial assistance	Draft research project validated by NTF Partnership or agreement on the research project adopted and signed Research report(s) adopted	Signed partnerships or agreements sent to NFP Research reports sent to NFP		
Action 4	Develop a system for monitoring SBMPL based on remote sensing and image interpretation technologies	Medium	NTF	03/2023	12/2025	Staff, technical and financial partners	Monitoring system's TOR developed and adopted by NTF, System in operation	Reports sent to NFP every 6 months		

5.		Actions related to private sector engagement								
Action 1	Develop incentives and disincentives for the private sector: financial and non-financial	Medium	NTF	03/2023	12/2025	Staff	TORs on financial and non-financial incentives developed by NTF Procedures on the assessment of financial and non- financial incentives developed and adopted by NTF	Developed TORs sent to NFP Adopted procedures sent to NFP Procedures' performance to be evaluated every 12 months		
Action 2	Promote cooperation with the private sector including shipping and fishing sector: - Cooperation agreements/part nerships, - Sponsorships	Medium	NTF	03/2023	12/2025	Staff External support required on development of model agreement or partnership	Draft partnership or cooperation agreement validated by NTF Partnerships and/or agreements with private sector signed or adopted	Signed partnerships and agreements sent to NFP, Progress report on implementation sent to NFP		
Action 3	Develop and implement a training programme for NGOs and the private sector in data collection and in monitoring	Medium	NTF	03/2023	12/2025	Staff, experts, workshops <u>External support</u> <u>required to</u> : provide training materials, training packages and guidance documents	Training programme adopted by NTF, Training workshops organized	Documents and reports sent to NFP every 6 months		