Environmental and Social Management Plan for
"Pilot and integration of tracking, logbook and market traceability tools for co-management of the small-scale fisheries sector in Seychelles"

1. **Project Description**

Objective: To establish a small-scale pilot project and proof of concept of a set of digital tools to demonstrate the benefits that could be achieved through a larger scale implementation for the diverse communities of artisanal fishers in the Seychelles.

Output: A set of co-management tools for the FBOA working with the SFA and reports.

Planned activities:

- Deployment of hybrid tracking system on 30 fishing vessels and trials at sea for 12 months of the total 18 months of the project.
- Customization of existing tools for traceability of value chains
- Consolidation of the data collected into dashboard indicators
- Surveys and regular workshops with the fishermen, the FBOA and the SFA.

Issues to be addressed in terms of potential E&S impact

- Occupational health and safety (OHS) (injuries or health risks).
- Biodiversity risks (illegal fishing of protected species and/or in protected areas)
- Pollution risks (dumping of vessel waste at sea)

2. Risks, mitigation measures and monitoring

Potential risks	Mitigation measures	Indicators to monitor implementation of mitigation measures
Environmental risks		
Illegal fishing of protected species and/or in protected areas	1.1 Deployment of VMS trackers which provides fishing location for each trip.	1.1 VMS data from individual trips will be verified by the Seychelles Fishing Authority (SFA) to ensure that fishing does not occur in protected areas. Geofencing by SFA on the VMS trackers can also trigger alarms when fishers enter MPA's.
	1.2 Use of the ABALOBI Fisher Logbook and Marketplace.	1.2 Fishers will be requested to log all catch from fishing trips. Protected species will not be traded on the Marketplace however catch of these species will be recorded in logbook.
Dumping of vessel waste at sea	1.3 Training and fisher onboarding. Fishermen will be asked to read and sign declaration/disclaimer (Annex 1) covering waste management and dumping at sea.	1.3 Periodic verification of waste management practices will be done when recording catch data for the Marketplace. Awareness activities will be implemented with fisher workshops.
Health and safety risks		
Accident at sea	2.1. Familiarize participating fishers in SOS alerts and maritime rescue channels. (See attachment). SOS alert button is present on all the CLS NEMOVMS devices. In case of emergency fishers press the SOS button and emergency transmission is sent to SFA and MRCC.	2.1. 100% of participating fishers involved in the project will be trained in use of VMS SOS and provided relevant safety services contact information. Training will involve showing the fishers where the SOS button is and informing them of its role in sending message to authorities.
	2.2. Verify that participating fishers have required safety equipment.	2.2. 100% of participating vessels will be inspected to ensure they have all required safety systems in place.

3. Monitoring Plan

3.1. Data collection, analysis and report responsibilities

Accidents at Sea

1. Data relating to the indicator will be collected by the FBOA and/or SeyCCAT as required.
2. SeyCCAT will process the data and provide a brief monitoring report to PIU.
3. If required PIU will collect additional monitoring data.

Illegal fishing of protected species and/or in protected areas

1. Data relating to catches and fishing zone is automatically uploaded to the ABALOBI database and will be monitored by program staff. Information relating to illegal activities will be made available to relevant authorities.

3.2. Additional support (capacity building, resources etc.)

Accidents at Sea

1. All participating vessels will need to meet relevant requirements for fishing vessel set forth by The Seychelles Maritime Safety Administration (SMSA).
2. Records of participating vessels safety measures will be recorded in database managed by SMSA.
3. SFA and MRCC will receive alerts in case of SOS alert from VMS devices.

Illegal fishing of protected species and/or in protected areas

1. SFA has been offered access to VMS data for them to use during duration of the project. When fishers enter MPA, alerts can be automatically generated due to geofencing capabilities of the VMS devices.

2. Data relating to capture of protected species logged via the fisher app will be recorded in database.

3.3. Monitoring table

Mitigation measures	Indicator	Frequency	Responsibility	Cost
Familiarize participating fishers in SOS alerts and maritime rescue channels.	Number/percentage of fisher onboarding completed	Prior to participation in project	FBOA	NA
Verify that participating fishers have required safety equipment.	Number/percentage of fisher onboarding completed	Prior to participation in project	FBOA	NA
Deployment of VMS trackers which provides fishing location for each trip	Number/percentage of fisher onboarding completed	Weekly. Data from the VMS trackers are available for each trip and uploaded automatically to servers. Data will be available to project staff and SFA if they require.	FBOA	NA
Use of the ABALOBI Fisher Logbook and Marketplace	Number/percentage of fisher onboarding completed	Weekly. Fishers will be required to log catch information relating to each trip. This data is available immediately to project staff on entry via the ABALOBI database.	FBOA	NA
Dumping of vessel waste at sea	Fisher onboarding completed	Fishers will be informed on the importance of not disposing waste at sea. There is no means in place that allows for the verification that this does not happen. Project aims to target mostly small-scale vessels with outboard motors. These vessels do not generally go to sea for more than a few hours. As such storing waste onboard and returning it to shore should not pose a problem.	FBOA	Some cost could incur if waste bins or bags are to be deployed on the 30 vessels. Cost would be minimal.

3.4. Implementation schedule

Activity	Timeline of Activity										
	Year 1				Year 2						
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Mitigation measures											
Develop vessel safety onboarding protocol and fisher onboarding forms	▓										
Monitoring of the mitigation measures implementation											
Onboarding of Fishers. (continuous ongoing)	▓	▓	▓	▓	▓	▓	▓	▓			
Fisher workshops and community engagement (continuous ongoing)	▓	▓	▓	▓	▓	▓	▓	▓			
Database management (continuous ongoing)	▓	▓	▓	▓	▓	▓	▓	▓			

4.   Grievance Redress Mechanism

In line with the World Bank safeguards policies, the SWIOFish3 project has developed a Grievance Redress Mechanism (GRM) to receive, process and respond to complaints from any person or group of people related to the project or is affected by its activities. The GRM is a system designed to answer questions, clarify doubts and resolve implementation problems and complaints of individuals or groups affected by SWIOFish3 project activities. GRMs are intended to be accessible, collaborative, efficient, and effective in resolving concerns through dialogue, joint fact-finding, negotiation, and problem solving. Grievances can surface at different stages of the project cycle. Some grievances may arise during the project design and planning stage, while others may come up during project implementation. In general, grievances that may be encountered in the implementation of the SWIOFish3 project can be grouped into three categories:

- Grievances related to the changes in access to resources through management plans
- Grievances related to proponents and beneficiaries of the Blue Grants Fund (BGF) and Blue Investment Fund (BIF)
- Grievances related to issues encountered by local communities where project activities are occurring

Individuals or groups affected by the SWIOFish3 subproject can

- complete a "complaint form" which will be made available to the public to formulate their suggestions or complaints. These forms can be withdrawn at the PIU office or download from the project website. Once completed, these forms can be deposited in complaint boxes.
- A line of communication will be made for the public so that they can transmit suggestions and complaints through a call or an SMS;
- Formal letters, emails can also be sent to the PIU;
- Suggestions or complaints can also be formulated during consultation meetings.

Address:
SWIOFish3 Project
c/o Department of Blue Economy
Oliaji Trade Centre
Victoria
Republic of Seychelles

Annex 1: Waste management onboarding form

Prior to installing the VMS systems on board vessel ensure that the following section has been covered and understood by participating fishers, once fishers have been made aware of the risks and dangers of marine waste have fishers sign declaration bellow stating that they will not dispose of waste at sea. During the onboarding procedure fishers will be shown images from The Ocean Project Seychelles Facebook pages *(https://www.facebook.com/theoceanproject.sey/)* in order to sensitize them to the dangers of marine pollution as well as show them the effect that marine pollution is having in Seychelles. Onboarding will be conduct in English or Creole.

Marine pollution is a global issue affecting the health of the oceans. Marine pollution involves both larger objects such as food and beverage containers, plastic bags and lost fishing gear as well as smaller items such cigarette buts, bottle caps etc. Some forms of waste can also break down into smaller microscopic pieces can accumulate in the bodies of marine organism and lead to health risks for people consuming them. All these objects can have adverse effects of marine fauna leading to death of animals and degradation of the marine habitat on which fishers depend.

I .... as skipper of fishing vessel registered with the Seychelles Fishing Authority and having SZ number .... agree to participate in the project "Pilot and integration of tracking, logbook and market traceability tools for co-management of the small-scale fisheries sector in Seychelles" hereby confirm that I shall not dispose any waste at sea. I have been informed of the dangers of marine pollution on the oceans and the effects it can have to marine life and have been shown the effect that it has had in the Seychelles. Any waste that may be generated by my fishing operation whilst at sea, shall be returned to shore for proper disposal.

Sign...................................... Date...