SOLOMON ISLANDS GOVERNMENT
Ministry of Fisheries and Marine Resources
PO Box G2, Honiara, Solomon Islands

Pacific Islands Regional Oceanscape Program – Second Phase for Economic Resilience (PROPER)

TERMS OF REFERENCE

Project Overview	
Project Name	Solomon Islands: Pacific Regional Oceanscape Program Second Phase for Economic Resilience (SB-PROPER)
Activity Reference Number	SB-MFMR-515177-CS-CQS
Agency Name	Solomon Islands Government, Ministry of Fisheries and Marine Resources
Country	Solomon Islands
Project Title/Activity Description	Ministry of Fisheries & Marine Resources (MFMR) Electronic Port System Integration Developments – Phase 2
International	Open Market

1   Background

The Solomon Islands Ministry of Fisheries and Marine Resources (MFMR) received formal approval in late 2021 to implement the second phase of the Pacific Islands Regional Oceanscape Program (PROPER). This phase builds on the achievements of the first Pacific Islands Regional Oceanscape Program (PROP) and incorporates lessons learned, with enhanced technical, advisory, and management support to strengthen MFMR's capacity to effectively and efficiently deliver its mandate. PROPER became effective in July 2022. The development objective of PROPER is to strengthen regional collaboration and national capacity for the management and sustainable development of the oceanic and coastal fisheries sector in Solomon Islands. The project is structured around three main components:

Component 1: Strengthening Regional Collaboration and National Capacity for Oceanic Fisheries

This component focuses on improving enforcement, monitoring, and surveillance through the development and implementation of subsidiary legislation, policies, procedures, and operational plans. It also supports the establishment of systems for data collection, analysis, and reporting to inform policy and decision-making. In addition, the component contributes to institutional strengthening by improving the workplace environment and providing essential equipment.

Component 2: Strengthening Regional Collaboration and National Capacity for Coastal Fisheries

This component provides targeted technical support to coastal communities, promotes networking and partnerships, and supports provincial governments in fisheries management. It also emphasizes institutional strengthening to improve the delivery of coastal fisheries management services at national and subnational levels.

Component 3: National Program Management, Monitoring, and Evaluation

This component provides overall project oversight and coordination, including policy dialogue, work planning, budgeting, procurement, monitoring, and reporting. It ensures effective implementation and accountability of the project to both MFMR and the World Bank.

2   Operating Context

The tuna fisheries sector is a major contributor to the Solomon Islands' economy and gross domestic product (GDP). In 2021, the harvesting sector comprised 179 licensed fishing vessels operating under purse seine, longline, and pole and line gear types. The estimated annual catch of all commercial tuna species in national waters in 2021 amounted to 121,666 metric tonnes [1].

The total value of tuna caught in Solomon Islands waters in 2021 was estimated to be around US$212 million[2] from a total of 198 trips.

WCPFC Online database

Commission Part 1: Information on research, information and statistics 2021: (Report No. WCPFC- SC-18-AR/CCM-22). WCPFC, file:///C:/Users/dfatai/Downloads/AR-CCM-22_Solomon%20Islands%20(2).pdf.

2 Pacific Island Forum Fisheries Agency (2022). *WCPFC CA Economic indicators:* https://www.ffa.int/node/2721

With the growing interest of distant fishing nations to operate in Solomon Islands waters, it is essential for the Solomon Islands Government (SIG), through MFMR, to strengthen and enhance its Monitoring, Control, and Surveillance (MCS) systems. This should be complemented by an effective Catch Documentation Scheme (CDS) to ensure the traceability of fish and fish products caught in Solomon Islands waters and exported to overseas markets.

In 2018, MFMR identified the need to develop a system known as the ePort system to store all fisheries related information in a single, centralized database. Currently, the ePort system operates as a hybrid system, with some components already electronic, such as, at sea fishing activities through the Fisheries Information Management System (FIMS), Vessel Monitoring System (VMS), and Electronic Observer System (eObs, while other components, particularly the export component, remain paper-based. Upon completion of Phase 2 of the project, the ePort system is expected to replace the existing paper based manual catch documentation processes currently used by fishing companies, processing companies, and MFMR. The ePort system will serve as an additional monitoring tool to strengthen Monitoring, Control, and Surveillance (MCS) across the fisheries value chain, from capture and landing to transhipment, processing, and export.

3   Rationale for the Development of the ePort System

The ePort system was developed in response to the ongoing challenges faced by MFMR technical officers;

- Delay of catch documents for signing as the documents must move through various officers until it is signed; within both the Ministry of Fisheries and the fishing and processing companies.
- Catch documents are misplaced which resulted in fish products delayed to be shipped to markets;
- Recording and filing of the catch documents are not safe where paper documents wear and tear off;
- Identify more easily and eliminate illegal, unreported and unregulated (IUU) fishing activities throughout the tuna supply chain.
- Trace the legality of the catch from the point of capture, landing, transhipment and to export. Ensuring all catch landed, transhipped, processed and exported out from the two designated ports of Solomon Islands comes from the legal source.
- More efficient and convenient for Catch Documentation Scheme and traceability activities, including international market audit requirements.

With the above reasons, MFMR developed the ePort system and phase 2 will further strengthen and enhance through digitalization and automation of the monitoring and catch documents through storing of all the information about the catch of fish, landing, transhipment, pre-inspection, inspection, licensing, catch log sheets and processing of fish products, focusing on tuna. The second phase of the project will further strengthen the system's capacity. It will look at integration of ePort system to relevant government ministries, regional and sub-regional, industry and processing facilities' systems for that will contribute to efficiency across government machinery in regard to Digitalization of data and

automation of data flow and validation, processing and dissemination for policy and decision making.

4   Purpose and Objectives of the Role

The ePort system project is divided into various stages of development and implementation.

1. Phase 1
   (i) System design and development

   (ii) Maintenance stage- additional data fields/tabs

2. Phase 2- Integration Developments

The phase 1 of the ePort project involved the design, development and operationalize the ePort system. Capturing detail fields of fishing vessel information including catch documentation and traceability from the point of capture to unloading, transhipment and to export of processed and frozen catch to regional and international markets.

The execution of the maintenance stage of phase 1 was crucial to ensure all required information is captured and in accordance with the national, regional and the international port control measures and marketing standard.

The phase 2 development of the ePort project, will include integrating the ePort system with the existing systems from the tuna industries and the government line ministries that are currently based at the Noro and Honiara designated ports, in the Solomon Islands.

Therefore, the purpose of the consultancy role is to execute the integration of the ePort system to other existing and new systems from the tuna industries and the government line ministries which will also include the development of additional data fields and tabs into the existing modules of the ePort system to ensure the system captures all relevant MCS, CDS and traceability activities for both designated ports of the Solomon Islands.

The copyright of all the technical information or any information accessed or generated, design elements and codes developed as part of this consultancy belongs to MFMR. The Consultant must not share any information, design elements or codes without MFMR's approval, what could include a review of the information.

5   Qualification and Experience Requirement

- Bachelor's Degree or Higher qualification in Computer Science & Information Systems or any IT related programmes
- Acquired Industry certification in Application development/DevOps/

Software Engineer

- At least have 3-5 years' experience in developing desktop, web applications and mobile application (android and IOS) using programming language including but not limited to: VB.net, C#, MSSQL, APIs, GitHub, Laravel, (GitHub version control system – VCS).

- Specialized in custom software development to address specific business needs such as traceability of Tuna products and CDS.

- Prior experience developing systems for fisheries management, catch documentation schemes (CDS), or supply chain traceability is highly desirable

- Experience in secure system integration, data migration, and providing technical knowledge transfer/training is essential

- Detailed Integration Design Specification, including API contracts, data mapping, and security protocols for all systems listed in Section 5, for review and approval by the e-Port Steering Committee.

- Fluency in English and excellent written communication skills in English required.

- Ability to work in an organized and systematic manner and demonstrate professionalism with a high level of integrity in the day-to-day performance.

- Good interpersonal and teamwork skills, networking aptitude, ability to work in a multicultural environment.

- Understand basic fisheries operations and processes.

- Understand the World Bank environmental and social standards (ESS) with support from the SB PROPER E&S team.

6   Scope of Service

In the conduct and provision of the service, the Consultant must adhere to all relevant laws and policies of the SIG and World Bank environmental and social standards (ESS). The consultant will work in collaboration with SB PROPER team, MFMR management and the ePort Steering Committee, as required, to do the following.

Phase 2 System Integration of the MFMR ePort System:

  I. Consult the ePort Steering Committee on the required tasks to execute;
 II. Develop additional Data treatment codes, and reports fields, modules and tabs for both Noro and Honiara port activities and link with the correct vessel information from the ePort system;
III. Update ePort Steering Committee, MFMR management, and SB PROPER team on the work progress and inform on actual time of trial on the new features of the system;
 IV. Share technical information with the ePort Steering Committee members namely the

MFMR and SIG ICT support officers on the development of the additional Digitalization of data and automation of data flow and validation, processing and dissemination? Data treatment codes, reports fields, tabs and modules for verification;

V. Provide training and support service to users on the newly develop features of the ePort system;

VI. As per Section 6 provide deliverables including claims to the MFMR ePort Steering Committee for verification and qualification as per the contract requirements and the MFMR ePort Steering Committee through the chairperson will submit to the MFMR Permanent Secretary for approval and thereafter the claims will be submitted to PROPER PMU for payment processing;

VII. Full handover and deployment of the Phase 2 system integration to the MFMR and SIG ICTS once the system integration development is completed.

7   Deliverables/ Expected Outputs/Inputs

Systems to be integrated with ePort System	How to integrate to the ePort System
Parties to the Nauru Agreement (PNA) FIMS system	• Catch log-sheet - *Pull eLog-sheet data from FIMS using trip code* • EM data module – upload data from EM analysis software • Observer catch data (eObs) & GEN 3 - *Added to the Inward clearance module* • *FAD details (Observer data) - Pull data from FIMS Observer Module data on FADs*
National Fisheries Development (NFD) Data Management System	Catch log-sheet – *Develop a function in the catch log-sheet tab to scan and upload catch log-sheet for verification purposes*
	FAD number and position – *Develop a new tab to cater for the data*
	License cert & the Forum Fisheries Authority (FFA) cert (Already captured in electronic Port State Measures (ePSM) - *Create a function that allows users to upload signed documents and match with specific voyage id/ tripcode*
	Unloading summary (PS/PL & LL) & Fish Receipt document - *Create a function that allows users to upload signed documents and match with specific voyage id/ tripcode*
	Catch Certificate (CC) **application** - *Provide an upload function in ePort system to cater for CC applications and the signing process and save the final product*

	Star load confirmation certificate - *Provide an upload function in ePort system to cater for the signing process and save the final product*
	Export declaration - Provide an upload function in ePort system to cater for the signing process and save the final product 　　o Packing list 　　o Container loadlist 　　o Bill of lading (BL) 　　o Catchment Certificate (CC) details 　　o Solomon Islands/European Union Catch Certificate (SI/EU CC) 　　o International Commission for the Conservation of Atlantic Tunas (ICCAT)
SolTuna OIC System	o Fish receipt – *Develop function to upload fish receipt to ePort system* o EU approval vessels and establishments (Move to Solomon Islands Licensing Database (SOLIC)) – *Develop module to capture EU approval vessels and establishments* o Solomon Islands Catch Declaration (SICD) – *Develop SICD form in ePort system*
Traceability and Mass balance	• Expand report to cater for other processes like; what goes to Soltuna, export etc, especially for trips where the fish landed goes to more than 1 process. • Add market destination details • Add Bill of Lading • Add Health Cert Add additional information to identify the retained catch, may be a comments section
SoLic system	• Transshipment data (Honiara and Noro) • Transshipment and port entry levy charges • Generate Port entry and Transshipment levy fees invoice *Develop a new function in ePort system*
MCS TUFMAN	• Boarding/Inspection historical data *Develop a new function in ePort system*
Customs	• ePort to Customs Asycuda 　- Certified export permit (domestic fleets for export duty) 　- Fishing positions & catch within different EEZs Foreign vessel (FV) • Customs to ePort System 　- Certificate of origin 　　MSG Certificate to attach to BL

	Health Competent Authority (CA) system	• MFMR to Health CA - Dropbox to upload and download documents
	User's Training	
	Technical mentoring	
	Ad hoc customized development support	Support unlisted items related to the above major modules and functionalities

8   Duration of the Task and Estimated Timeframe

	New Field/Tab/Module to be added into the ePort System	Where to Link from the Existing Modules/ Fields/ Tabs of the ePort System	Implementation Timeframe
1	PNA FIMS system	• Catch logsheet - Pull eLogsheet data from FIMS using trip code • EM data module – upload data from EM analysis software • Observer catch data (eObs) & GEN 3 - Added to the Inward clearance module • FAD details (Observer data) - Pull data from FIMS Observer Module data on FADs	3 months
2	NFD Data Management System	• Catch log-sheet – *Develop a function in the catch log-sheet tab to scan and upload catch log-sheet for verification purposes* • FAD number and position – *Develop a new tab to cater for the data* • License cert & FFA cert (Already captured in ePSM) - *Create a function that allows users to upload signed documents and match with specific voyage id/ tripcode* • Unloading summary (PS/PL & LL) & Fish Receipt document - *Create a function that allows users to upload signed documents and match with specific voyage id/ tripcode* • Catch Cert (CC) application - *Provide an upload function in ePort system to cater for the signing process and save the final product* • Star load confirmation cert - *Provide an upload function in ePort system*	3 months

		to cater for the signing process and save the final product
		• Export declaration - *Provide a upload function in ePort system to cater for the signing process and save the final product, enable user to select the following to generate;*
		    o Packing list
		    o Container load list
		    o Bill of lading
		    o Annex BProcessing statement
		    o Non-Processing statement
		    o SI/EU CC
		ICCAT	

3	SolTuna OIC System	• Catch log-sheet – *Develop a function in the catch log-sheet tab to scan and upload catch log-sheet for verification purposes*
		• FAD number and position – *Develop a new tab to cater for the data*
		• License cert & FFA cert (Already captured in ePSM) - *Create a function that allows users to upload signed documents and match with specific voyage id/ tripcode*
		• Unloading summary (PS/PL & LL) & Fish Receipt document - *Create a function that allows users to upload signed documents and match with specific voyage id/ tripcode*
		• Catch Cert (CC) application - *Provide an upload function in ePort system to cater for the signing process and save the final product*
		• Star load confirmation cert - *Provide an upload function in ePort system to cater for the signing process and save the final product*
		• Export declaration - *Provide a upload function in ePort system to cater for the signing process and save the final product enable user to select the following to generate;*
		    o Packing list
		    o Container load list
		    o Bill of lading
		            Annex B
			3 months

		o Processing statement o Non-Processing statements/EU CC • ICCAT	
4	Mobile application (android)	• Develop mobile application (android) to capture transshipment and unloading data entries	1 month
5	Traceability and Mass balance	• Expand report to cater for other processes like; what goes to Soltuna, export etc, especially for trips where the fish landed goes to more than processes. • Add market destination details • Add Bill of Lading Add Health Certificate • Add additional information to identify the retained catch, may be a comments section	1 month
6	SoLic system	Develop a new function in the ePort system to capture: • Transshipment data (Honiara and Noro) • Transshipment and port entry levy charges • Generate Port entry and Transshipment levy fees invoice Auto send transshipment & Port entry invoice to companies • upload/download function	1 months
7	MCS TUFMAN	Develop a new function in the ePort system to capture: • Boarding/Inspection historical data	1 months
8	Customs	Develop a function in ePort for customs/MFMR access file directory: • Certified export permit (domestic fleets for export duty) • Fishing positions & catch within different EEZs (Foreign FV) • Certificate of origin MSG Certificate to attach to BL	1 month

9	Health CA system	Develop a function in ePort for Health/MFMR access file directory: • Health Certificate • Catch certificate • Port Entry notification	1 month
10	User's Training	Train all users on how to use the system and how to report operational issues/faults	3 weeks
11	Technical support and maintenance		6 weeks

9 Term of the Maintenance Stage and Performance Assessment

The contract for this development consultancy will be for a period of 1.5 years upon contract signing with an expected start date in May 2026 to July 2027.The assignment may combine home-based and on-site work, with variable costs such as per diem incurred only when on-site presence is required. The role is subject to performance assessment by the MFMR ePort Steering Committee, Solomon Islands Government Information, Communication and Technology Services (SIG ICTS) and the MFMR Permanent Secretary. Payment for the assign tasks will be made upon satisfactory completion, testing, and acceptance of each deliverable in the designated staging environment, subject to approval by the MFMR e-port Steering Committee. All source code must be maintained in a version control system (e.g., GitHub) with access provided to MFMR Steering Committee and the MFMR Permanent Secretary.

10 Administrative Information and Resources

Payments will be made on completion of deliverables, receiving of invoices and submission of reports about the status of the work and approved by the representative of the MFMR ePort Steering Committee and the MFMR Permanent Secretary and provided to the PROPER Project Coordinator and Accounts Team for processing. The consultancy role will be financed by the PROPER under component 1 subcomponent 1: promotion of all the ePort initiative for all landing and processing parts.

MFMR will provide the required information for the assignment and meeting space as required. However, the consultant must ensure they have the necessary resources such as laptop etc. as needed to undertake the role effectively and efficiently.

11   Reporting Requirements

The Consultant will work in collaboration with MFMR offshore team and report directly to the MFMR ePort Steering Committee, the Deputy Director Offshore, PROPER PMU team and the Permanent Secretary of the MFMR.