

Adapting tuna-dependent Pacific Island communities and economies to climate change

ANNEX 06.a: Environmental and Social Management Plan

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Abbreviations

AE	Accredited Entity
AGRM	Accountability and Grievance Redress Mechanism
AP	Affected People
AWS	Advance Warning System
CI	Conservation International
EE	Executing Entity
EEZ	Exclusive Economic Zone
ENSO	El Niño Southern Oscillation
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standards
FADs	Fish Aggregating Devices
FI	Financial Intermediaries
FPIC	Free, Prior, and Informed Consent
FSM	Federated States of Micronesia
GAP	Gender Action Plan
GCF	Green Climate Fund
ILO	International Labor Organization
IPP	Indigenous Peoples Plan
M&E	Monitoring and evaluation
PICs	Pacific Island Countries
PMU	Project Management Unit
PNG	Papua New Guinea
PPF	Project Preparation Facility
RMI	Republic of the Marshall Islands
SEP	Stakeholder Engagement Plan
SPC	The Pacific Community
TOR	Terms of Reference

1 Executive Summary

During development of the Concept Note for the GCF Regional Tuna Programme, proposed activities were screened against the ten Environmental and Social Standards (ESS) of Conservation International's Green Climate Fund (CI-GCF) Environmental and Social Management Framework (ESMF). Screening was undertaken during the concept stage and subsequently reviewed as part of the Project Preparation Facility (PPF). Below is a summary of the risks identified during PPF screening, confirming the Accredited Entity (AE) risk categorization of C - the Programme is likely to have minimal adverse environmental or social impacts, avoided through design or can be minimized through implementation of standard management measures.

At the concept stage it was determined that an Environmental and Social Framework (ESMF) was required as there were multiple activities requiring expounding. Further refinement of the Programme activities and subsequent screening has determined that an Environmental and Social Management Plan (ESMP) is a suitable instrument given the level of activity available and scale of inherent risk. The ESMP is the mechanism through which the requirements of GCF ESS1 (Assessment and Management of Environmental and Social Risks and Impacts) is implemented.

The AE has confirmed a rating of Category C as screening of the Programme activities identifies negligible or minimal inherent adverse impacts that have been avoided through design or can be minimized through implementation standard management measures. The full screening results, including justifications of ESS Standards that have not been triggered, are included in Section 4.

The programme is expected to have minimal environmental and social impacts due to low-impact FAD designs that will be safely deployed at depths beyond those of coral reef ecosystems and based on indigenous knowledge to avoid issues such as damaging coral reefs and marine mammal entanglement; further, there will be no infrastructure or construction activities involved except for small-scale work for container pads and anchor blocks, and there will be no direct financing to industrial fishing vessels or fish processing plants. Identified impacts can be avoided or minimized through considerate activity design which responds to this ESMP. Inherent risks associated with the design and use of the FADs have the potential to cause minimal adverse environmental or social impacts, consistent with Category C which allows for minimal adverse impacts. These can be avoided or minimized through considerate activity design which responds to this ESMP.

A summary of the identified inherent risks are summarized against the CI-ESMF Standards (and associated GCF ESS) below (Table 1) along with mitigation measures to address them.

Table 1: Identified risks by standard along with associated mitigation measures.

Summary of Risks	Mitigation Factors/Measures or Management Strategies
ESS 1: Environmental and Social Assessment, Management and Monitoring (GCF ESS 1: Assessment and Management of Environmental and Social Risks and Impacts)	<p>Based on the detailed description of Programme activities, the results of the screening and identified inherent risks determine a Category C risk rating for this Programme. ESS screening finds that 'there are minimal or no adverse environmental and/or social risks and/or impacts.</p> <p>An ESMP is determined to be an appropriate instrument for this Programme where there are still elements of activities which have not yet been determined (such as FAD deployment site selection), the ESMP and other safeguards instruments (Stakeholder Engagement Plan and Indigenous Peoples Plan) has been designed to provide coverage for avoidance of minimisation of potential risks and/or impacts without the need for additional site-specific screening.</p>

Summary of Risks	Mitigation Factors/Measures or Management Strategies
<p>ESS 4: Indigenous Peoples</p> <p>At the regional level, the 14 participating countries include communities with a diversity of customs, customary laws, norms, cultural practices, languages, and traditions meeting the broad GCF definition of Indigenous Peoples. However, at the Programme intervention level, communities across the PICs are, overall, considered to be homogenous in language, culture, and practices. This means that Programme benefits or impacts will not adversely or differently affect indigenous people under the GCF definition at the Programme site level.</p>	<p>Low Risk</p> <p>Affected People are considered at a community level encompassing marginalized and vulnerable groups and individuals. Best practice will be used and Free, Prior, and Informed Consent (FPIC) using traditional customer processes is integrated throughout Programme design and stakeholder engagement. An IPP was not required for this Programme as FPIC has been integrated into FAD site selection processes both in activity design and through the required processes of the ESMP.</p> <p>This is considered low risk given the inherent cultural norms across the PICs which prevent any type of Programme activities from taking place within communities without community support and/or approval.</p>
<p>ESS 5: Resource Efficiency and Pollution Prevention</p> <p>FADs which break loose from their mooring have the potential to become marine pollution.</p>	<p>The Programme is using a FAD system designed by SPC and will be securely anchored in nearshore (or up to 7km offshore in limited circumstances in 3 participating countries) water for some FADs in three countries) setting which minimizes the usual risks to FAD loss (through damage from large shipping vessels). FADs are designed to minimize entanglement with marine mammals, turtles and sharks. FADs will also be installed with a GPS tracker to enable lost FADs to be easily recovered, repaired, and reinstalled.</p> <p>No specific management plan is required for this standard as SPC FAD design is specially contextualized to the nearshore environments of the PICs and recovery of lost FADs is built into activity design through GPS trackers. (Activity 1.1.6)</p> <p>This is considered low risk given the small artisanal nature of the proposed FADs and considering that SPC have specially targeted their FAD design to be suitable for these environments.</p>

Summary of Risks	Mitigation Factors/Measures or Management Strategies
<p>ESS 8: Community Health, Safety and Security</p> <ol style="list-style-type: none"> 1. Changing fishing methodology of some fishers from reef fishing to FAD fishing presents safety-at-sea risks. Safety-at-sea risks include: (i) operating new types or sizes of boat (mechanical and skills), (ii) fishing in new types of water conditions, (iii) inexperience or lack of data leading to exposure to weather events at sea, (iii) health and safety risks associated with using new type of fishing gear used for FAD fishing. 2. There is also a risk associated with the post-harvest handling and processing of tuna. These risks are associated with histamine poisoning from tuna left in the sun for too long and botulism risks from incorrect processing of harvested fish. 	<ol style="list-style-type: none"> 1. A CHSS Plan has not been developed as part of the PPF, instead an activity (with three sub-activities) has been developed in the Programme log frame to specifically include addressing the risks associated with safety-at-sea (Activity 1.2). Activity 1.2 will be implemented in alignment with the requirement of this ESMP to ensure all applicable aspects of ESS 8 will be captured during implementation. This is considered low risk as many fishers targeted by the Programme are already familiar with FAD fishing and are currently working under this risk. Through activity 1.2, the Programme is providing them with an increased level of safety compared to the status quo. Despite the specific comprehensive activities proposed under this Programme, any time a fisher enters the marine environment there is a risk to safety. That inherent risk of going to sea exists regardless of fishing method and complete avoidance of risk is impossible in any setting. 2. This is considered low risk as both risks are well known and understood within the local fishing communities and within the Executing Entity (EE), SPC. There are already existing materials for training in the PICs to minimise these risks and these training materials have been incorporated into the capacity building plans for activity implementation.

The ESMP shows how risks identified in the CI screening process are considered in the design of the Programme and any additional mitigation measures that may be required. In addition, during Programme implementation, the ESMP requires that risks be managed through the measures listed below:

- Involving an experienced environmental and social safeguards specialist in activity planning, design, and implementation processes as directed by this ESMP. This specialist input will be sourced through the SPC Programme Director utilising SPC technical experts as required.
- Ensuring the monitoring and evaluation (M&E) process includes adequate review of environmental and social risks. This will be done by a Monitoring, Evaluation and Learning (MEL) specialist with specific experience in reviewing environmental and social considerations. This is provided for.
- Assigning formal roles and responsibilities within the ESMP for environmental and social management across the Programme team.
- Establishing a reporting procedure for environmental and social concerns related to the interventions, including through the Programme's Accountability and Grievance Redress Mechanism (AGRM).
- Incorporating environmental and social safeguard considerations into the training, capacity building and technical assistance delivered through the Programme.
- Ensuring environmental and social risks and safeguards are considered in technical assistance activities and any documentation to be produced under the Programme, including in TORs and capacity building materials.

2 Introduction

This ESMP has been prepared for CI as the Accredited Entity (AE) and The Pacific Community (SPC) as the Executing Entity (EE) and is part of the **GCF Funding Proposal: Adapting Tuna-dependent Pacific Island Communities and Economies to Climate Change**. Along with CI and SPC, the ESMP was collaboratively developed with the partner governments of the 14 participating Pacific Island Countries (PICs).

2.1 Purpose and Scope of This ESMP

The ESMP is a tool to assist in managing potential adverse social and environmental impacts associated with Programme activities, in line with the requirements of CI-GCF's ESMF (Version 7)¹. The development of the ESMP was guided by the environmental and social assessments within the ESMF.

The implementing partners of the Programme and the relevant members of the PMU will follow the ESMP during the start of the Programme implementation to ensure the environmental and social risks and impacts are fully assessed and management measures are in place prior to the implementation of the Programme activities.

Programme screening based on stakeholder meetings and a desktop study of similar programmes in the region as well as a review of potential options led to the AE confirming their original determination of Category C for the Programme. Guided by the CI-GCF ESMF, implementation of the Programme is likely to have minimal adverse environmental or social impact such that an Environmental and Social Impact Assessment (ESIA) is not required. However, specific Programme safeguard plans are required. The ESMP provides the necessary mitigation strategies to strengthen compliance and safeguard communities as necessary.

The locally-led nature of Programme design requires determination of specific interventions during implementation. For example, specific sites for installation of FADs and the identification of post-harvesting processing techniques to pilot can only be determined at Programme start-up. Therefore, the ESMP also provides guidance for further site-specific assessments and management planning required to understand foreseeable risks and impacts and provides the relevant suite of potential mitigation measures during the inception period.

2.2 Integration of ESS Management

It is the responsibility of SPC as the EE to ensure that the requirements of the ESMP are fully integrated into the Programme. The EE will achieve this through its tasking to the PMU. It is the EE's responsibility to ensure that proper ESS processes and reporting is in place to ensure the Programme is delivered with minimal or no negative environmental or social impact.

The EE will:

- Ensure that the necessary resources and skills are retained to successfully carry out all mitigation measures.
- Formally monitor and report on the environmental and social performances of all activities.
- Require that implementing parties manage their environmental and social performance in line with the ESMP.

The PMU will:

- Ensure that all relevant implementing parties are sensitized on aspects of the ESIS/ESMP and received appropriate training to fulfill their individual environmental and social responsibilities.
- Ensure the ESMP screening process is correctly implemented for activity designs.

¹ https://www.conservation.org/docs/default-source/gcf/ci_gcf_esmf-version-7.pdf?sfvrsn=a788de43_4

- Require ESMPs to be developed for unidentified sub-activities as required in this ESMP.
- Continually monitor and report as needed issues related to social and environmental risk.
- Raise awareness among target communities on this ESMP and the Programme's AGRM.

The relevant elements of the ESMP shall form part of any procurement documentation or TOR, and it shall be the PMUs responsibility to ensure that all procurement documents and contractual specifications are subject to review against this ESMP to ensure that all appropriate safeguard measures are captured at the bid stage and in all contracts.

It is further the responsibility of the PMU to ensure that this ESMP is considered in review of any TOR for Technical Assistance developed for the Programme. The safeguard requirements for any design or supervision of the Programme will be fully integrated into TOR to ensure that all safeguard responsibilities allocated within the ESMP are realized at the tender stage.

In this way, the ESMP will be fully integrated within the Programme: required measures will be fully appreciated by all responsible parties, staff will be trained to meet ESS requirements, and successful implementation will be achieved.

2.3 CI Environmental and Social Management Framework

Given the diversity of implementation environments, the varying coverage and enforcement of environmental legislation in these countries, the small-scale individual interventions and the absence of need for environmental permits for the Programme, the Programme will use the CI ESMF as the standard governing framework for E&S performance. This will ensure standards are applied evenly across the Programme and will further facilitate effective implementation.

If the requirements of the CI-GCF ESMF differ with the requirements of the policies of the GCF, CI will ensure the programme meets the requirements of the GCF as well as the CI-GCF ESMF. The Programme covered by this ESMP will comply with CI-GCF's ESMF (v7, 2020). The objectives of the ESMF are to:

- Strengthen the quality of programming by ensuring a principled approach.
- Avoid adverse impacts to people and the environment.
- Minimize, mitigate, and manage adverse impacts where avoidance is not possible.
- Strengthen CI and partner capacities for managing social and environmental risks.
- Ensure full and effective stakeholder engagement, including a mechanism to respond to complaints from Programme-affected people.

The CI-GCF ESMF requires that all programmes be screened for their environmental and social impacts, that those impacts be identified, and that the Proposed Programme be categorized according to its potential environmental and social impacts. Regardless in which category a programme is screened, all environmental and social risks shall be adequately identified and assessed by the EE in an open and transparent manner with appropriate consultation.

The scope of the environmental and social assessment shall be commensurate with the scope and severity of potential risks. The assessment should assess all potential environmental and social risks and include a proposed risk management plan, or in this case an ESMF.

All programmes developed by CI shall be designed and implemented to meet the ESMF ESS although it is recognized that depending on the nature and scale of a programme not all standards will be relevant.

Table 2: Environmental and Social Standards of the CI-GCF ESMF

Standard	Purpose
ESS 1 Environmental and Social Impact Assessment	The purpose of this standard is to ensure that all CI-GCF supported programmes are environmentally and social sound and sustainable and avoid/mitigate unintentional negative impacts.
ESS 2 Protection of Natural Habitats and Biodiversity Conservation	To avoid or mitigate any significant loss or degradation and to maintain and promote the sustainable management, protection, conservation, maintenance, and rehabilitation of natural habitats and their associated biodiversity and ecosystem functions and services.
ESS 3 Resettlement and Physical Displacement	To avoid, minimize, mitigate and/or compensate the potential adverse socio-economic and cultural impacts of resettlement processes and displacement that some CI-GCF programmes might create.
ESS 4 Indigenous Peoples	To ensure that: <ul style="list-style-type: none"> a. The Programme respects indigenous peoples' rights, including their rights to Free, Prior and Informed Consent; b. Indigenous peoples involved in the design of the Programme receive culturally appropriate benefits that are negotiated and agreed upon with the EE;

Standard	Purpose
	<p>c. Potential adverse impacts are avoided or adequately addressed or negotiated and agreed upon through a participatory and consultative approach; and</p> <p>d. The implementation of the Programme, any required IPP or Framework, and Programme benefits are monitored by qualified professionals and indigenous peoples.</p> <p>This Standard applies to programmes that affect indigenous peoples, whether adversely or positively. Such programmes need to be prepared with care and with the full and effective participation of affected communities.</p>
ESS 5 Resource Efficiency and Pollution Prevention	<p>The objectives of this Standard are as follows:</p> <ul style="list-style-type: none"> a. To avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from Programme activities; b. To promote more sustainable use of resources, including energy and water; c. To reduce Programme-related emissions of Greenhouse Gas (GHG); d. To avoid or minimize generation of hazardous waste; and e. To minimize and manage the risks and impacts associated with pesticide use. <p>This Standard outlines a Programme-level approach to mitigating, minimizing and managing any risks and potential adverse impacts that may be related to resource use and pollution.</p>
ESS 6 Cultural Heritage	To ensure that cultural resources, both tangible and intangible, are appropriately preserved and their destruction or damage is avoided.
ESS 7 Labor and Working Conditions	<p>To protect workers by ensuring that risks or potential adverse impacts to workers are avoided or mitigated, and the fundamental rights of workers are respected, consistent with the International Labor Organization's Declaration on the Fundamental Principles and Rights at Work. This Standard seeks to promote the fulfilment of these rights.</p> <p>The standard applies to workers directly engaged by the Executing Agency/Entity, including direct workers, contracted workers, as well as workers engaged by the Executing Agency/Entity's primary suppliers (primary supply workers).</p>
ESS 8 Community Health and Safety	<p>To ensure that risks or potential impacts to the health, safety and security of Programme-affected communities are identified, avoided, and mitigated.</p> <p>The health, safety, and security of Programme-affected people must be assessed and mitigated as inter-connected risks in any environmental and social risk assessment. This includes the potential risks for communities already subjected to impacts from climate change or natural hazards that may also experience an acceleration or intensification of impacts due to Programme activities.</p> <p>This Standard addresses the need to avoid, and where avoidance is not possible, to minimize and mitigate the health, safety and security related risks and impacts that may arise over the lifetime of the Programme, with particular attention given to marginalized or disadvantaged groups.</p>
ESS 9 Private Sector Direct Investments and Financial Intermediaries	The purpose of this Standard is to promote good environmental and sound human resources management where the CI-GEF/GCF Project

Standard	Purpose
	<p>Agency makes either direct investments in private sector firms, or channels funds through Financial Intermediaries (FIs).</p> <p>The nature of financial intermediation means that the FIs will assume delegated responsibility for environmental and social assessment, risk management and monitoring as well as overall portfolio management. The effectiveness of the FI's environmental and social risk management will be evaluated and monitored by the CI-GEF/GCF Project Agency on a continuous basis throughout the Programme lifecycle in line with the requirements of this ESMF.</p>
ESS 10 Climate Risk and Related Disasters	<p>The purpose of this Standard is to:</p> <ul style="list-style-type: none"> a. Ensure alignment of CI-GEF/GCF programmes with the goals of the Paris Agreement and other international frameworks; b. Ensure that proposed activities are screened and assessed for climate change and disaster risks and impacts both of-and-to programmes; c. Apply the mitigation hierarchy in Programme design; d. Strengthen resilience of communities to address risks of climate change impacts and climate related disasters; and, e. Increase the ability of communities to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emitting programmes that do not threaten food production.

3 Programme Description

3.1 Background

More than four million people, and the economies of nine countries, in the Pacific Islands region face severe risks due to the impacts of climate change on fisheries. These impacts are expected to occur in two major forms. The first is through the degradation of coral reefs, which provide most of the animal-based protein required for domestic nutritious food availability across the region. The second major impact is on the redistribution of tuna supporting the industrial fisheries that many PICs depend on heavily for revenue (from licensing fees) to fund basic services for their citizens.

In the western and central Pacific Ocean, the abundant skipjack tuna is caught most easily at the convergence of the two tropical ecological provinces – the western Pacific warm pool and the Pacific equatorial divergence. This convergence zone is already known to shift by up to 4,000 km due to El Niño Southern Oscillation (ENSO) events and is programmed to move further to the east as the warm pool expands with increasing sea surface temperature. Preliminary modelling confirms that tuna in equatorial areas is also highly likely to shift progressively to the east as the ocean continues to warm, and to a lesser extent into subtropical waters.

The implications for the food availability in the Pacific Island people is significant. Across the region, annual national fish consumption per capita ranges from 20-110kg (Figure 1).

This consumption rate represents up to five times the global average, and fish traditionally caught from coral reefs by small-scale fisheries provide 50-90% of dietary animal protein for coastal communities². By 2035, population growth and the negative effects of climate change on coral reef fish production will create demand for an additional 75,000 tonnes of fish per year for good nutrition of coastal and urban communities.

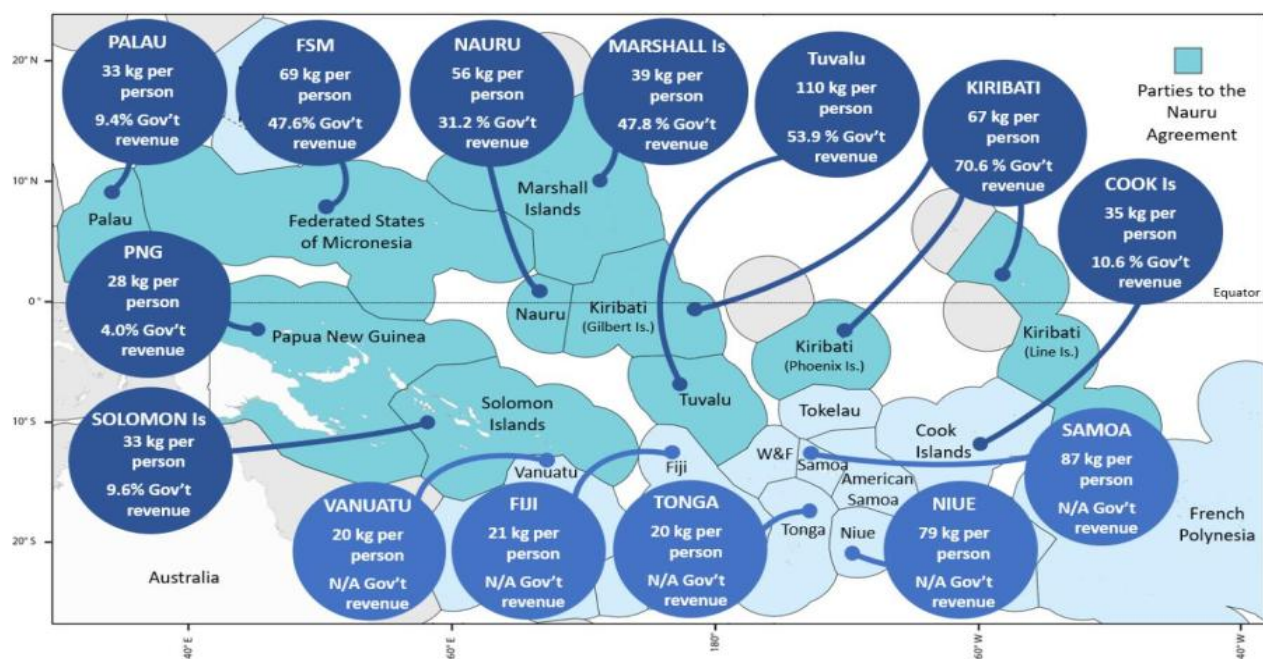


Figure 1: Annual average national fish consumption per capita (kg), and the average percentage contribution of tuna fishing access fees to (non-aid) government revenue (2015-2018), in the 14 PICs participating in the Programme. Source: Concept Note.

² SPC 2008, Fish and Food Security. SPC Policy Brief 1/2008. <https://pacificdata.org/data/dataset/oai-www-spc-intced24e95-7e0a-401a-9f0b-d79316c49cb0>

The rich tuna resources of the region are the most practical choice for filling this gap in fish supply³ because, even though tuna is programmed to migrate eastward, far more tuna than are needed for domestic nutritious food availability will remain in national waters. The region's tuna resources are not overfished⁴ due to exemplary management by PICs, and no problems are anticipated in using tuna to provide most of the additional 75,000 tonnes of fish needed for good nutrition (see Annex 23). Indeed, only 6% of the total annual tuna catch from the Pacific Island region of approximately 1.25 million tonnes will be needed to fill the gap in fish supply by 2035⁵. However, because tuna usually occur some distance from the coast, communities will need additional support to catch them. To make tuna a cornerstone of national food systems, urgent action is required to i) empower coastal communities to catch more tuna efficiently and safely; and ii) ensure that the supply of tuna for urban communities, delivered by industrial fishing vessels, is not disrupted as fleets fish and tranship their catch further to the east.

Furthermore, climate-driven redistribution of tuna threatens to undermine the economies of the PNA member countries and Cook Islands, which obtain an average of 32% (range = 4–70%) of their total (non-aid) government revenue from tuna fishing access fees⁶. By 2050 under RCP8.5, the redistribution of tuna is programmed to reduce the total fishing access fees for these nine countries by an average of approximately \$90 million (range \$40–\$140 million) per year at today's prices⁷. For several of these countries, the programmed loss of fishing access fees is estimated to reduce total (non-aid) government revenue by 6–13% per year (range 2–9% to 11–18%). This significant reduction in government finance will have direct impacts on vulnerable populations in these countries, with fewer resources available for health, education, disaster preparedness and post-disaster recovery. Tuna redistribution could also affect employment across the region, where tuna fishing and processing has created approximately 25,000 jobs⁸.

Based on this, the main barriers to be addressed by this regional Programme fall into two categories – those that are limiting increased access to tuna for coastal and urban communities; and those that prevent governments from understanding and responding to the implications of climate-driven tuna redistribution for their economies.

3.2 Programme Activities

The Programme will remove the main barriers to improve availability of nutritious food through supporting Pacific Island governments to implement effective programmes for assisting coastal and urban communities to obtain and utilize more tuna and provide those governments with improved information on climate change-driven redistribution of tuna. Through this support, Pacific Island nations will be transformed to become more resilient to key climate change threats facing the fisheries sector because communities and governments will be better informed and equipped to make optimal use of the fisheries resources on which they depend for food, livelihoods, and economic development.

Programme interventions to address the barriers related to increased fishing, processing, and marketing of nearshore oceanic tuna and associated species have been formulated based on the region's varied experience utilizing artisanal FADs

The Programme will also support activities to remove barriers to the increased utilization of transhipped and unloaded tuna and bycatch from commercial tuna fishing operations in PICs with fast-growing urban populations by supporting:

³ Bell J.D. et al. 2015. Diversifying the use of tuna for food security and public health in Pacific Island countries and territories. *Marine Policy* 51:584-591. <http://dx.doi.org/10.1016/j.marpol.2014.10.005>

⁴ Brouwer et al. 2019. The Western and Central Pacific tuna fishery: 2018 overview and status of stocks. SPC Tuna Fisheries Assessment Report 19. <https://oceanfish.spc.int/en/ofpsection/sam/508-tuna-fisheries-assessment-reportno-19>

⁵ SPC 2008, Fish and Food Security. SPC Policy Brief 1/2008. <https://pacificdata.org/data/dataset/oai-www-spc-intced24e95-7e0a-401a-9f0b-d79316c49cb0>

⁶ Pacific Islands Forum Fisheries Agency, fisheries development data for the 4-year period 2015-2018.

⁷ Based on the most recent, but yet unpublished, modelling and economic analyses by the project partners. These analyses update the information in SPC Policy Brief 32 (reference 11).

⁸ Pacific Islands Forum Fisheries Agency, fisheries development data for the 4-year period 2015-2018.

- i) the development and implementation of policies that mandate the landing of tuna and bycatch during transshipping and unloading operations, particularly tuna caught by industrial purse-seiners (normally destined for canning) and fresh or frozen tuna unloaded from longliners in PIC ports, and
- ii) research and trials of alternative processing and product presentation options for frozen and brined tuna landed by industrial purse-seiners to increase acceptance and demand among peri-urban and urban populations in PICs.

Some PICs have bans or restrictions on commercial landings by commercial tuna fishing vessels at the current time to protect its local/artisanal fishing sector. However, as populations increase, and the availability of reef-associated fisheries resources continues to decrease in response to climate change, these PICs will be required to explore alternative sources of fish protein to address threats to national food availability.

The Programme will support policy review and development to promote increased availability of tuna and bycatch from the commercial tuna fleets by formalizing requirements for purse seine and longline vessels authorised to fish within the Exclusive Economic Zone (EEZ) of a country to undertake a minimum number of transshipments or unloadings in port, irrespective of fishing patterns that can vary across years because of the prevailing ENSO conditions.

Finally, Component B of the Programme addresses the need to manage the risks to PIC economies, and the vulnerable populations who depend on public spending, associated with the changing distribution of tuna because of climate-induced changes to the WCPO ocean ecosystem by providing reliable information on the scope and magnitude of tuna redistribution. This will be achieved through the development of an 'Advance Warning System' (AWS) to forecast nearer-term changes in the distribution of tuna across the tropical Pacific Ocean, providing robust forecasts in 1–10-year timeframes, rather than the existing 30–50-year range.

All the above will be realized through the following components, outcomes, and activities in the logframe as indicated in the Funding Proposal and below.

Component A. Adaptation to harness tuna for food availability for Pacific Island communities as coral reefs are degraded by climate change

Outcome 1: Improved food availability for vulnerable communities in participating countries

Outputs	Activities	Sub-Activity
Output 1: Increased access to tuna and other pelagic fish for coastal communities	Activity 1.1: Provide technical and logistical support to strengthen National FAD programmes.	<p>1.1.1. Audit progress toward requirements for scaling-up National FAD programmes in the 14 Participating Countries.</p> <p>1.1.2. Develop workplans for scaling-up National FAD programmes based on the audit in 1.1.1.</p> <p>1.1.3. Review national policies and regulations to identify barriers to the equitable and sustainable use of FADs.</p> <p>1.1.4. Design and implement capacity development activities to augment the skills of national staff to implement national FAD programmes.</p> <p>1.1.5. Design and implement a gender responsive consultative stakeholder engagement strategy for national fisheries agencies and communities to identify suitable FAD deployment sites.</p> <p>1.1.6. Procure materials to maintain the national FAD programme.</p> <p>1.1.7. Strengthen the skills of small-scale fishers to catch tuna and other large pelagic fish around FADs.</p> <p>1.1.8. Establish and maintain FAD-related catch data collection systems and processes.</p> <p>1.1.9. Establish/strengthen national response mechanisms to natural disasters affecting small-scale fishers using FADs.</p>
	Activity 1.2. Augment national safety-at-sea initiatives.	<p>1.2.1. Conduct a needs analysis for improved vessel safety for small-scale fishers using FADs.</p> <p>1.2.2. Customize meteorological and natural disaster forecasts to assist small-scale fishers and deliver the information nationwide via mobile applications.</p> <p>1.2.3. Providing 20 sets of boating safety equipment and training in the use of the safety equipment.</p>
	Activity 1.3 Strengthen post-harvest practices and market opportunities for FAD-caught fish.	<p>1.3.1. Provide training for coastal communities to improve preservation of FAD-caught fish using post-harvest methods, e.g., drying, smoking and bottling.</p> <p>1.3.2. Provide communities with basic equipment to apply post-harvest methods, including practical options for cold storage where appropriate.</p> <p>1.3.3. Identify and promote market opportunities for small- and medium-scale enterprises (SMEs) for FAD-caught fish.</p>

		1.3.4. Conduct communication campaigns to raise the awareness of coastal communities about the climate change impacts on coral reef fish and the need to consume more FAD-caught tuna for community food availability.
Output 2: Increased supply of bycatch and tuna from industrial fishing operations for urban communities	Activity 2.1. Implement strategies to deliver more transshipped and unloaded bycatch and tuna to urban/peri-urban communities.	2.1.1. Assess the supply of bycatch and tuna available for offloading at each transshipping and unloading port. 2.1.2. Evaluate the projected shortfalls in the supply of fish needed for the food availability of urban and peri-urban communities by 2030 and in following decades. 2.1.3. Use the AWS (see Activity 3.1.1 below) to assess the implications of tuna biomass redistribution for transshipping and unloading activities across the region. 2.1.4. Build national capacity to conduct policy analysis on current and future transshipment of bycatch and tuna. 2.1.5. Develop procedures and regulations to increase availability of transshipped and unloaded bycatch and tuna where needed to fill the gap in fish supply.
	Activity 2.2 Strengthen/develop post-harvest practices and improve market opportunities to distribute bycatch and tuna from transshipping and unloading operations to urban/peri-urban communities.	2.2.1. Provide training for urban communities to improve/develop post-harvest processing techniques for bycatch and tuna from transshipping and unloading operations. 2.2.2. Pilot alternative marketing mechanisms to support increased trade in bycatch and tuna in urban areas. 2.2.3. Conduct communication campaigns to raise awareness of urban/peri-urban communities about the climate change impacts on coral reef fish and the need to consume more bycatch and tuna to meet future nutrition requirements. 2.2.4. Provide fish market outlet designs at various scales for countries where transshipping and unloading occurs.
Component B. Adaptations to reduce risks to Pacific Island economies from climate-driven tuna redistribution		
Outcome 2: Strengthened capacity of tune-dependent Pacific Island nations to negotiate for benefits from climate-redistributed tuna stocks.		
Output 3: Science-based forecasts and projections that reduce uncertainty in climate change-driven tuna redistribution and facilitate effective	Activity 3.1: Develop and deliver an Advanced Warning System (AWS) for climate-driven tuna redistribution	3.1.1. Transition existing fisheries and ocean monitoring systems to produce higher-resolution forecasts and projections of tuna biomass redistribution. 3.1.2. Establish baselines and indicators for quantification of climate change impacts on distribution of tuna biomass. 3.1.3. Enhance collection and curation of physical oceanography and micronekton data to inform modelling of climate-driven tuna biomass redistribution.

adaptations for all stakeholders	Activity 3.2: Assess and socialise the impact of tuna biomass redistribution on national economies.	3.2.1. Conduct bio-economic and fleet dynamics modelling to estimate changes in tuna catch and associated socio-economic benefits.
	Activity 3.3. Provide AWS-related training to national institutions to negotiate in regional and international forums to address economic losses due to the impacts of climate change on tuna distribution.	3.3.1. Academic and vocational training to increase the number of Pacific Island fisheries and climate staff with enhanced capabilities to negotiate to retain the national benefits received from tuna. 3.3.2. Assemble evidence for Pacific Island countries to use in negotiations at regional and global scales to address the impacts of climate-driven tuna redistribution.

3.2.1 Artisanal Fish Aggregating Devices

Much research and trailing has gone into aFAD (referred to as FADs in this ESMP) designs over the last four decades, and the EE has been at the forefront of this work in the Pacific. The result is three main designs recommended for deployment in nearshore and offshore waters: the Indo-Pacific (Figure 2, top left), the subsurface (Figure 2, top right) and the lizard (Figure 2, bottom) designs. These three designs are proposed for use in the Programme, recognizing that participating countries may have a preference for one or two of these designs. The Indo-Pacific design incorporates a string of surface floats attached to negatively buoyant (sinking) nylon multistrand rope connected (spliced) into positively buoyant (floating) polypropylene multistrand rope which is attached to the anchor system. The length of rope used is around 25 percent longer than the depth of water the FAD will be deployed in, with supplementary buoyancy added to the lower mooring line when FADs are deployed in less than 1,500 m. A full description of the FAD design and materials used has been published by SPC.

This subsurface design has the string of floats attached to polypropylene rope that is shorter than the depth of water the FAD is being deployed in and is attached to the bottom by an anchor system. A small surface float is also attached with light nylon rope so that fishers are able to locate the FAD initially and formulate their own landmarks for locating the FAD when the surface float is removed.

The lizard design incorporates a string of surface floats on negatively buoyant (sinking) nylon multistrand rope connected (spliced) into positively buoyant (floating) polypropylene multistrand rope which is attached to the anchor system. In addition, several pressure floats are attached to the upper end of the polypropylene rope the same as in the subsurface design. Therefore, if the surface float system is lost, the FAD continues to operate as a subsurface design.

The three FAD designs continue to evolve with small changes or refinements to increase their lifespan, to use more environmentally friendly materials and to reduce the costs of materials wherever possible. Therefore, the actual design or designs to be used in each country will be decided between SPC and each country prior to the procurement of materials.

To promote the institutionalization of FAD programmes in PIC government's on-going recurrent support to coastal communities as a means address threats to national food availability, the Programme will facilitate the review of existing institutional and legislative provisions relating to FADs utilized by local fishers. This will provide a sound basis for engaging with coastal communities to collaborate on the location, use and maintenance of FADs.

Critically, in those countries subject to regular extreme weather events, particularly cyclones, national FAD management plans will provide for the establishment of cyclone proof storage facilities, such as shipping containers, to improve resilience and reduce the response time to re-establish FADs in the event of a natural disaster. This will reduce the traditional reliance on international disaster relief efforts to support the recovery of affected communities.

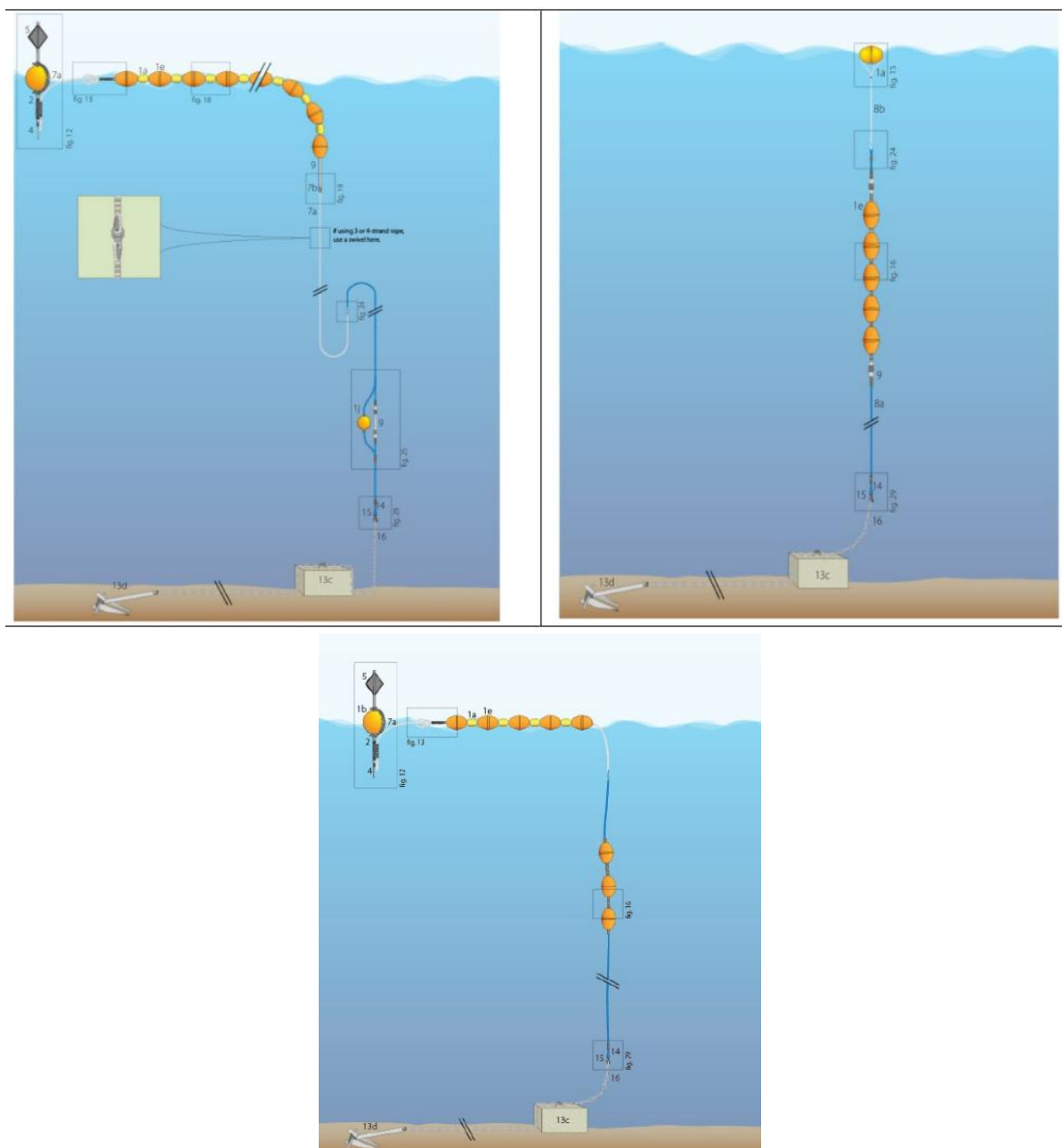


Figure 2: Indo-Pacific FAD mooring design showing the upper floatation system used in offshore areas (top left) and subsurface FAD mooring design showing the temporary surface marker to aid fishers to locate the FAD initially (top right) and “Lizard” mooring design FAD (bottom) that combines features from both the surface Indo-Pacific design and subsurface design.

The vast majority of FADs will be targeted for deployment in nearshore waters; however, three countries have requested FADs to be deployed further into the coastal waters (6km – 9km). Nauru (4 FADs), Palau (8 FADs) and Samoa (10 FADs) are experienced in coastal FAD fishing and have a higher calibre of current FAD fishery boats which are better than in most other countries in the region, as well as fishers experienced fishing this distance from shore.

3.2.2 Post-Harvesting Activities

Sub-activity 1.3a will provide training courses for subsistence households and MSMEs to improve preservation of FAD-caught fish using post-harvest methods, e.g., drying, smoking and bottling, and incorporating traditional knowledge where appropriate.

Sub-Activity 1.3b will provide communities with basic equipment to apply post-harvest methods, including practical options for cold storage where appropriate. The Programmes post-harvest specialist staff member from SPC will consult with national fisheries agencies to identify the groups of small-scale fishers/communities to engage in pilot projects to develop cold chains and establish enterprises to apply post-harvest methods to extend the shelf life of FAD-caught fish and add value to these fish. The criteria for selecting the participants will include, among others, the local demand for tuna and proximity of markets for post-harvest products. The following types of equipment will be purchased by SPC to support the pilot projects on an as needs basis:

- solar-powered ice making machines
- solar freezers
- smokers
- fish dryers
- tools needed for bottling/canning fish to a safe standard.

Sub-activity 2.2b will pilot alternative marketing mechanisms to support increased trade in bycatch and tuna. The purpose of this sub-activity is to identify and pilot additional ways of using bycatch and tuna from transshipping and unloading operations, over and above the post-harvest products that have already been made from fish in the Pacific Island region. Selected MSMEs will be provided with training on post-harvest methods on port where transshipment or offloading takes place. Methods to document subsequent uptake of the post-harvest training by MSMEs will also be developed by the expert staff at FFA and applied in collaboration with national fisheries agencies.

Eligibility criteria and selection process for locations and Micro, Small, and Medium Enterprises (MSMEs) for post-harvest processing of bycatch and tuna

The following eligibility criteria will be used by SPC, FFA and national fisheries agencies for selecting locations and MSMEs that will be supported to improve their capacity for post-harvest processing:

Criteria for selecting locations

- Urban centre (port) is used regularly by purse-seine vessels, and in the past has received more brined bycatch (e.g. tuna that are too small for processing in canneries) than can be sold within an acceptable period (approximately 3 days) following offloading, resulting in waste and thereby providing post-harvest opportunities for increasing shelf-life of bycatch for consumption by urban communities.

Urban centre (port) is used regularly by longline vessels, and in the past has received more bycatch (e.g. frozen non-tuna large pelagic fish species and lower-value tuna) than can be sold within an acceptable period (approximately 3 days) following unloading, thereby providing post-harvest opportunities for production of shelf-stable products for consumption by urban communities.

- At least one MSME with demonstrated experience in retailing and marketing of fish and with good potential to increase production to capitalize on improved supply exists in the urban centre.

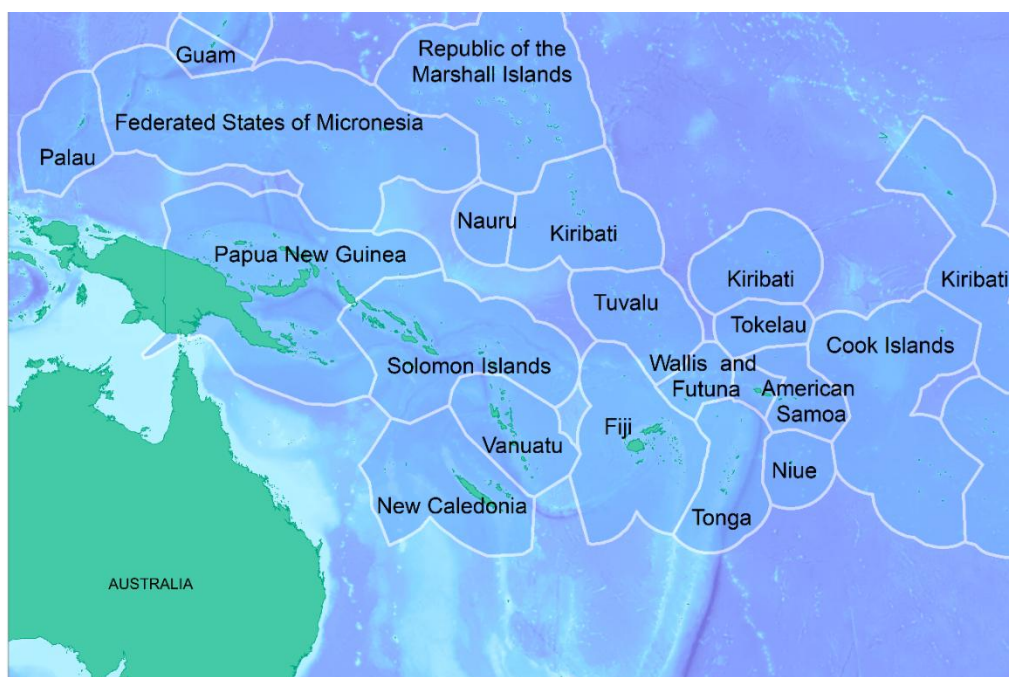
Criteria for selecting MSMEs

- MSMEs respond to a transparent expression of interest process for MSME selection established by each national fisheries administration in collaboration with FFA and SPC

- Criteria for MSME identification and post-harvest training available and administered by the national fisheries agency. National fisheries agency reviews applications from MSMEs against eligibility criteria, including but not limited to:
 - Nature of current business activities
 - Number of years of trading
 - Location of main business activity
 - Number of personnel actively contributing to MSME business activities
 - Gender composition of participant entities
 - Estimate of monthly MSME turnover
 - Estimates of current MSME monthly costs
 - Estimates of the number of beneficiaries
 - An assessment of sustainability / profitability potential
 - An assessment of the current local market demand and product preferences for tuna transhipped or unloaded
 - An assessment of product diversification options

3.3 Programme Locations

The Programme is being implemented across 14 PICs (Figure 3). While no specific sites for interventions have been identified in the PPF stage, a high-level contextual summary of each is provided below. The summaries below are extracted from the Programme's regional report on feasibility of scaling-up national FAD programmes in all 14 participating PICs.⁹



⁹ Chapman L. *in prep*. Regional Report: Feasibility of scaling-up National Fish Aggregating Device (FAD) Programmes in all 14 participating countries. Technical Study prepared for the Pacific Community as a contribution to a funding proposal being prepared for submission to the Green Climate Fund (GCF). October 2023. Lindsay Chapman Consulting Pty Ltd, Brisbane, Australia. 92 p. <https://purl.org/spc/digilib/doc/au6vm>

Figure 3: Map identifying the location of each of the 14 participating countries and their EEZ boundary.
Source: SPREP

3.3.1 Cook Islands

The Cook Islands is a group of 15 islands in central Polynesia made up of a northern and southern group. The Cook Islands' land area is around 237 km² consisting of 12 inhabited and three uninhabited islands, and a coastline length of 120 km. In contrast to the land area, the Cook Islands EEZ is estimated at 1,969,690 km².

The 2021 population was 15,040¹⁰ with everyone living within 5 km of the coast.¹¹ The population is spread through the 12 inhabited islands, with around 70 percent living on Rarotonga where the capital Avarua is located. Table 3 provides a breakdown of the population and household numbers by region, as well the number of households conducting fishing activity on the reef or lagoon and those fishing open ocean for pelagic fish. Table 3 also provides the number of households owning canoes and boats in 2016¹². The average per capita fish consumption is 35 kg ranging from 61 kg in rural areas to 25 kg in urban areas¹³.

Island name	2021 Census				2016 Census	
	Population	Total households (HHs)	Number of HHs fishing in lagoon and reef	Number of HHs ocean fishing	Number of canoes owned by HHs	Number of boats owned by HHs
Rarotonga	10,898	3,467	925	294	140	189
Southern Islands	3,040	962	548	276	167	207
Northern Islands	1,102	252	197	76	33	271
Total	15,040	4,681	1,670	646	340	667

Table 3: Cook Islands population and household numbers by island in 2021, along with the number of households engaged in fishing in the lagoon or open ocean. The number of households in 2016 that owned canoes and boats is also provided.

3.3.2 Federated States of Micronesia

The Federated States of Micronesia (FSM) is an archipelago at the southern edge of Micronesia. FSM's land area is around 701 km² consisting of four States (Pohnpei, Chuuk, Yap and Kosrae) with 607 islands, atolls and islets, and a coastline length of 6,112 km. In contrast to the land area, the FSM's EEZ is estimated at 2,907,950 km².

The mid-2022 population estimate for the FSM is 105,987 people. The population in 2010, the last census, was 102,843¹⁴ with 88.5 percent of the population living within 1 km of the coast, and everyone living within 5 km of the coast.¹⁵ The population is spread through the 4 States, with around 34 percent living on Pohnpei proper where the capital Palikir and the national administration is located. Table 4 provides a breakdown of the population and household numbers by state in 2010 as well as the number of power boats and canoes and the number of fishers catching tuna. Table 4

¹⁰ Cook Islands 2021 Population Census Report.

¹¹ From the SPC Statistics for Development website: https://sdd.spc.int/dataset/df_pop_coast

¹² Cook Islands 2016 Population Census Report.

¹³ SPC Policy Brief 1/2008, Fish and food security, website: https://www.spc.int/DigitalLibrary/Doc/FAME/Brochures/Policy_Brief1_08.html

¹⁴ FSM 2010 Census of Population and Housing.

¹⁵ From the SPC Statistics for Development website: <https://sdd.spc.int/fm>

also provides the number of power boats and canoes in 2016¹⁶ as well as the number of households engaged in fishing, and those catching tuna and other pelagics. The average per capita fish consumption is 69 kg ranging from 77 kg in rural areas to 67 kg in urban areas¹⁷.

States with main island groups	FSM 2010 Census				Integrated Agricultural Census 2016		
	Population	Households (HHs)	Number of power boats and canoes	Number of HHs catching tuna	Number of power boats and canoes	Number of HHs engaged in fishing	Number of HHs catching tuna
Yap State	11,377	2,671	828	914	793	1,378	629
Chuuk State	48,654	8,272	3,224		3,198	4,222	1,577
Pohnpei State	36,196	7,288	1,263	1,090	1,463	2,434	709
FSM	102,843	19,588	5,315	2,004	5,604	8,508	3,059

Table 4: FSM population and household numbers by state in 2010, along with the number of power boats and canoes and the number of households catching tuna; with power boat and canoe numbers in 2016 along with the number of households fishing and those catching

3.3.3 Fiji

The Republic of Fiji or Fiji is an archipelago at the eastern edge of Melanesia in the central Pacific Ocean. Fiji's land area is around 18,333 km² consisting of over 330 islands, of which around 110 are permanently inhabited, plus over 500 islets, and a coastline length of 1,129 km. In contrast to the land area, the Fiji EEZ is estimated at 1,255,290 km².

The 2017 population was 884,887¹⁸, with 76.4 percent of the population living within 5 km of the coast and a further 14.8 percent living from 5 to 10 km from the coast.¹⁹ The population is spread through 4 divisions,²⁰ with around 43 percent living in central division, where the capital Suva is located. Table 5 provides a breakdown of the population and household numbers by division. The average annual per capita fish consumption is 21 kg, ranging from 25 kg in rural areas to 15 kg in urban areas²¹.

Division name	Population	Number of households
<i>Central Division</i>	<i>378,284</i>	<i>78,408</i>
<i>Eastern Division</i>	<i>37,648</i>	<i>8,531</i>
<i>Western Division</i>	<i>337,041</i>	<i>76,235</i>
<i>Northern Division</i>	<i>131,914</i>	<i>28,736</i>
Overall total	884,887	191,910

Table 5: Fiji population and household numbers by division and district in 2017

3.3.4 Kiribati

The Republic of Kiribati is comprised of three island groups, the Gilbert Islands, Phoenix islands and Line Islands at the eastern edge of Micronesia. Kiribati's land area is around 811 km² consisting of 21 inhabited and 12 uninhabited coral islands, with a coastline length of 1,143 km. In contrast to the land area, the Kiribati EEZ is estimated at 3,333,170 km².

¹⁶ FSM Integrated Agricultural Census 2016.

¹⁷ SPC Policy Brief 1/2008, Fish and food security, website: https://www.spc.int/DigitalLibrary/Doc/FAME/Brochures/Policy_Brief1_08.html

¹⁸ Fiji 2017 Population and Housing Census (release 3, September 2018).

¹⁹ From the SPC Statistics for Development website: https://sdd.spc.int/dataset/df_pop_coast

²⁰ The 4 Divisions of Fiji are Central, Eastern, Northern and Western.

²¹ SPC Policy Brief 1/2008, Fish and food security, website: https://www.spc.int/DigitalLibrary/Doc/FAME/Brochures/Policy_Brief1_08.html

The 2020 population was 119,438²² with everyone living within 1 km of the coast.²³ The population is spread across the 21 inhabited coral atolls with around half the population in South Tarawa, with Bairiki being the administrative center. Table 6 provides a breakdown of the population and household numbers by division. Table 6 also provides the number of households that own fishing boats; own canoes; and undertake oceanic or outer reef fishing targeting tuna and other pelagics. The average per capita fish consumption across Kiribati is 62 kg ranging from 58 kg in rural areas to 67 kg in urban areas²⁴.

Division and/or district	Population	Households (HHs)	HHs owning fishing boats (wood, aluminum, fiberglass)	HHs owning canoes	HHs undertaking oceanic and outer reef fishing
South Tarawa	63,072	9,444	251	74	1,112
Northern Division	20,735	3,939	112	385	1,152
Central Division	8,344	1,717	57	179	410
Southern Division	15,994	3,327	125	545	1,034
Line Islands and Phoenix Division	11,293	1,927	94	220	724
Total	119,438	20,354	639	1,403	4,432

Table 6: Kiribati population and household numbers by Division in 2020, along with the number of recreational canoes and power boats and the number of households fishing offshore and for pelagics.

3.3.5 Nauru

The Republic of Nauru is comprised of a single coral island at the southern edge of Micronesia. Nauru's land area is around 21 km² with a coastline length of 30 km. In contrast to the land area, the Nauru EEZ is estimated at 309,044 km².

The 2019 population was 11,550²⁵ with everyone living within 5 km of the coast, and the vast majority living within 1 km of the coast.²⁶ The population is spread around the 14 districts with most of the population living in the southern part of the island where the main employment and shopping centers are located. Table 7 provides a breakdown of the population in 2019 and the population in 2011²⁷ with household numbers by district. Table 7 also provides information from 2011 on the number of households that own fishing boats or canoes; and the proportion or percentage of households that are involved in fishing activities and ocean fishing for tuna and other pelagic fish. The average per capita fish consumption across Nauru is 56 kg²⁸.

Districts around Nauru	2019 mini-census	Population and Housing Census 2011
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²² Kiribati 2020 Census of Population and Housing.

²³ From the SPC Statistics for Development website:

[https://stats.pacificdata.org/vis?lc=en&df\[ds\]=SPC2&df\[id\]=DF_POP_COAST&df\[ag\]=SPC&df\[vs\]=2.0&dq=.KI..&pd=2021%2C2021&ly\[cl\]=RANGE%2CINDICATOR](https://stats.pacificdata.org/vis?lc=en&df[ds]=SPC2&df[id]=DF_POP_COAST&df[ag]=SPC&df[vs]=2.0&dq=.KI..&pd=2021%2C2021&ly[cl]=RANGE%2CINDICATOR)

²⁴ SPC Policy Brief 1/2008, Fish and food security, website: https://www.spc.int/DigitalLibrary/Doc/FAME/Brochures/Policy_Brief1_08.html

²⁵ Nauru 2019 Mini-Census Fact Sheet of Population and Housing.

²⁶ From the SPC Statistics for Development website:

[https://stats.pacificdata.org/vis?lc=en&df\[ds\]=SPC2&df\[id\]=DF_POP_COAST&df\[ag\]=SPC&df\[vs\]=2.0&dq=...&pd=2021%2C2021&ly\[cl\]=RANGE%2CINDICATOR](https://stats.pacificdata.org/vis?lc=en&df[ds]=SPC2&df[id]=DF_POP_COAST&df[ag]=SPC&df[vs]=2.0&dq=...&pd=2021%2C2021&ly[cl]=RANGE%2CINDICATOR)

²⁷ National Report on Population and Housing Census 2011.

²⁸ SPC Policy Brief 1/2008, Fish and food security, website: https://www.spc.int/DigitalLibrary/Doc/FAME/Brochures/Policy_Brief1_08.html

	Population (2019)	Population (2011)	Number of households (HHs)	Proportion (%) of HHs involved in fishing	Proportion (%) of HHs involved in ocean fishing	Number of motorboats (aluminum, fiberglass, wood)	Number of traditional canoes
Yaren	810	747	101	56	19	15	2
Boe	987	851	131	60	28	20	5
Aiwo	1,292	1,220	208	50	24	16	12
Buada	962	739	132	39	19	10	0
Denigomodu	397	307	55	44	17	8	6
Nibok	571	484	70	21	9	7	3
Uaboe	448	318	39	59	15	7	0
Baitsi	656	513	68	38	23	6	9
Ewa	513	446	61	54	28	9	2
Anetan	774	587	90	54	24	10	0
Anabar	418	452	63	73	45	11	5
Ijuw	212	178	28	96	72	1	0
Anibare	317	226	34	85	44	16	0
Meneng	1,729	1,380	241	55	21	17	6
Location	1,464	1,497	326	43	20	5	29
TOTAL	11,550	9,945	1,647	51	24	158	79

Table 7: Nauru population in 2019 by district and population household numbers by district in 2011, along with the number of canoes and power boats and the proportion or percentage of households engaged in fishing and oceanic fishing.

3.3.6 Niue

Niue is an island country at the south edge of Polynesia in the central Pacific, with the island and Beveridge reef located between 18-20° South Latitude, and 167-170° West Longitude (Figure 1²⁹). Niue's land area is around 259 km² consisting of a single coral island with a coastline length of 64 km. In contrast to the land area, the Niue EEZ is estimated at 317,787 km².

The 2021 population was 1,720³⁰ with around 83 percent of the population living within 5 km of the coast.³¹ The population is spread around the island with 25 percent of the population in Alofi South where the administrative center is located. Table 1 provides a breakdown of the population and household numbers by village. Table 1 also provides the number of households conducting fishing activity offshore for pelagic species³² or both offshore and inshore, the number of canoes, aluminum dinghy/boats, outboard motors and charter vessels. The 2021 Agriculture Census also stated that of the 528 households on Niue, 264 of them were engaged in fishing activity with 73 percent of the fishing households only fishing for home consumption and the other 27 percent sold some of their catch. The average per capita fish consumption is 79 kg across the country (urban and rural)³³.

Villages	Number of:
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²⁹ From the Pacific Community (SPC) website: <https://sdd.spc.int/nu>

³⁰ Niue Census of Agriculture 2021.

³¹ From the SPC Statistics for Development website: https://sdd.spc.int/dataset/df_pop_coast

³² Pelagics or pelagic species are defined as organisms that live near the surface of the water or in the water column itself (Bell et al 2011).

³³ SPC Policy Brief 1/2008, Fish and food security, website: https://www.spc.int/DigitalLibrary/Doc/FAME/Brochures/Policy_Brief1_08.html

	Total population	Households (HHs)	HHs engaged in fishing	HHs engaged in fishing offshore or offshore and inshore	Canoes	Aluminium dinghy/boats	Outboard motors	Charter boats
Alofi South	428	150	68	41	24	19	18	11
Alofi North	182	54	26	12	4	2	1	1
Makefu	62	20	10	5	5	0	0	0
Tuapa	126	35	20	10	9	5	2	0
Namukulu	8	4	2	1	1	0	0	0
Hitutavake	47	17	14	6	5	2	2	0
Toi	36	12	5	0	0	0	0	0
Mutalau	85	32	11	6	6	0	0	0
Lakepa	91	27	17	6	3	3	2	0
Liku	86	28	13	3	2	2	1	0
Hakupu	204	51	24	17	14	1	1	1
Vaiea	88	16	4	3	0	3	3	0
Avatele	135	39	25	17	15	7	7	1
Tamakautoga	142	43	25	8	3	3	3	2
TOTAL	1,720	528	264	135	91	47	40	16

Table 8: Population and household numbers by community in Niue in 2021, along with the number of households involved in fishing, owning a canoe, boat, outboard motor or charter boat.

3.3.7 Palau

The Republic of Palau is an archipelago at the western edge of Micronesia. Palau's land area is around 444 km² consisting of nine inhabited islands and over 500 islets, and a coastline length of 1,519 km. In contrast to the land area, the Palau EEZ is estimated at 581,938 km².

The 2020 population was 17,614³⁴ with everyone living within 5 km of the coast.³⁵ The population is spread through the 16 States³⁶ with around 70 percent living in Koror State where most of the administration is located, with the capital being Ngerulmud in Melekeok state. Table 9 provides a breakdown of the population and household numbers by state. Table 9 also provides the number of recreational canoes and power boats, and the number of households conducting some fishing activity offshore and targeting tuna and other pelagic species. The average per capita fish consumption is 33 kg ranging from 43 kg in rural areas to 28 kg in urban areas³⁷.

State	Population	Number of households (HHs)	Number of recreational canoes	Number of recreational power boats	Number of HHs fishing offshore	Number of HHs targeting pelagics
Koror	11,199	3,172	64	304	359	337
Kayangel	41	25	3	8	9	10

³⁴ Palau 2020 Census of Population, Housing and Agriculture.

³⁵ From the SPC Statistics for Development website: <https://sdd.spc.int/pw>

³⁶ The 16 States are: Kayangel, Koror, Ngarchelong, Ngaraard, Ngiwal, Melekeok, Ngchesar, Airai, Aimeliik, Ngatpang, Ngardmau, Ngaremlengui, Angaur, Peleliu, Sonsorol, and Hatohebi.

³⁷ SPC Policy Brief 1/2008, Fish and food security, website: https://www.spc.int/DigitalLibrary/Doc/FAME/Brochures/Policy_Brief1_08.html

Ngarchelong	384	113	5	25	24	19
Ngaraard	396	128	8	23	22	19
Ngiwal	312	88	2	6	35	8
Melekeok	318	94	6	20	15	15
Ngchesar	319	101	4	13	15	9
Airai	2,529	752	47	123	92	111
Aimeliik	363	106	3	27	10	13
Ngatpang	289	74	4	17	15	10
Ngardmau	238	71	0	11	5	8
Ngaremlengui	349	103	0	26	9	9
Angaur	114	49	1	4	15	17
Peleliu	470	154	40	37	25	15
Sonsorol	53	17	0	0	15	15
Hatohobei	39	9	1	2	8	9
Others*	201					
Total	17,614	5,056	188	646	673	624

Table 9: Palau population and household numbers by state in 2020, along with the number of recreational canoes and power boats and the number of households fishing offshore and for pelagics.

3.3.8 Papua New Guinea

Papua New Guinea (PNG) is located at the western side of Melanesia, made up of the eastern half of New Guinea; the Bismarck Archipelago comprising New Britain, New Ireland and the Admiralty Islands; Bougainville and Buka as part of the Solomon Islands chain; and many small offshore islands and atolls (around 600 in total). PNG's land area is around 462,840 km², with a coastline length of 5,152 km. There are 22 Provinces within four regions, Southern, Highlands, Momase and Island, and 15 of the provinces are coastal. In contrast to the land area, the PNG EEZ is estimated at 1,558,660 km².

The population in 2011 was 7,275,324³⁸ and this has increase to around 9,423,000³⁹ based on population estimates. Unlike most other Pacific countries, most of the population in PNG (70 percent) lives more than 10 km from the coast, with around 21 percent living withing 5 km of the coast.⁴⁰ The population is spread across the country with around 5 percent of the population in and around Port Moresby the capital and administrative center of PNG. Table 10 provides a breakdown of the population and household numbers by region from the 2011 census, as well as the population estimates for 2022. The average per capita fish consumption across PNG is around 20 kg ranging from 10 kg in rural areas to 28 kg in urban areas⁴¹.

Regions and provinces of PNG	2011 Census		Population estimates 2017-2022		
	Total population (2011)	Total number of households (2011)	Estimated male population (2022)	Estimated female population (2022)	Estimated total population (2022)
Southern Region	1,456,250	235,388	1,029,000	922,000	1,950,000
Highlands Region	2,854,874	593,179	1,808,000	1,711,000	3,519,000
Momase Region	1,867,657	348,648	1,322,000	1,244,000	2,566,000
Islands Region	1,096,543	197,429	730,000	658,000	1,388,000

³⁸ Papua New Guinea National Population and Housing Census 2011.

³⁹ Provincial estimates or key population groups 2017-2022, Christine McMurray and Esther Lavu, the National Research Institute of PNG, 2020.

⁴⁰ From the SPC Statistics for Development website:

[https://stats.pacificdata.org/vis?lc=en&df\[ds\]=SPC2&df\[id\]=DF_POP_COAST&df\[ag\]=SPC&df\[vs\]=2.0&dq=.SB..&pd=2021%2C2021&ly\[cl\]=RANGE%2CINDICATOR](https://stats.pacificdata.org/vis?lc=en&df[ds]=SPC2&df[id]=DF_POP_COAST&df[ag]=SPC&df[vs]=2.0&dq=.SB..&pd=2021%2C2021&ly[cl]=RANGE%2CINDICATOR)

⁴¹ SPC Policy Brief 1/2008, Fish and food security, website: https://www.spc.int/DigitalLibrary/Doc/FAME/Brochures/Policy_Brief1_08.html

TOTAL	7,275,324	1,374,644	4,889,000	4,535,000	9,423,000
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Table 10: PNG population and housing numbers in 2011 by province, as well as the population estimates for 2022 including the number of women and men by province.

3.3.9 Republic of Marshall Islands

The Republic of the Marshall Islands (RMI) is an archipelago located at the north-eastern side of Micronesia. Marshall Islands' land area is around 181 km² consisting of 29 coral atolls and over 1,100 islets of which 23 atolls are inhabited. The atolls are in two chains, Ratak and Ralik, with a coastline length of 370 km. In contrast to the land area, the RMI EEZ is estimated at 1,774,280 km².

The 2021 population of the RMI was 42,418⁴² with the entire population living within 1 km of the coast.⁴³ The population is spread across the 23 inhabited atolls with around 54 percent of the population on Majuro the capital and administrative center, with a further 23 percent of the population on Kwajalein. Table 11 provides a breakdown of the population and household numbers by atoll as well as the number of paddling and outrigger canoes in 2021. The average per capita fish consumption across the Marshall Islands is estimated at 39 kg.

Atolls	Population	Households	Number of paddle canoes	Number of outrigger canoes
Ailinglaplap	1,175	224	35	15
Ailuk	235	56	6	8
Arno	1,141	217	8	3
Aur	317	66	0	0
Bikini	0	0	0	0
Ebon	469	105	16	9
Enewetak	296	64	0	0
Jabat	75	18	3	0
Jaluit	1,409	206	7	16
Kili	415	82	0	0
Kwajalein	9,789	1,421	2	6
Lae	133	35	6	2
Lib	156	22	0	0
Likiep	228	49	2	2
Majuro	23,156	3,896	40	21
Maloelap	395	83	2	2
Mejit	230	48	5	6
Mili	497	105	2	7
Namdrik	299	70	17	6
Namu	525	101	20	12
Rongelap	0	0	0	0
Ujae	310	51	0	1
Ujelang	0	0	0	0
Utirik	264	54	6	11
Wotho	88	17	0	0
Wotje	816	133	1	0
All Marshall Islands	42,418	7,123	178	127

⁴² Republic of the Marshall Islands 2021 census report.

⁴³ From the SPC Statistics for Development website:

[https://stats.pacificdata.org/vis?lc=en&df\[ds\]=SPC2&df\[id\]=DF_POP_COAST&df\[ag\]=SPC&df\[vs\]=2.0&dq=..COASTALPOPAF..&pd=2021%2C2021&ly\[rw\]=GEO_PICT&ly\[c\]=RANGE](https://stats.pacificdata.org/vis?lc=en&df[ds]=SPC2&df[id]=DF_POP_COAST&df[ag]=SPC&df[vs]=2.0&dq=..COASTALPOPAF..&pd=2021%2C2021&ly[rw]=GEO_PICT&ly[c]=RANGE)

Table 11: Marshall Islands population, number of households, paddling canoes and outrigger canoes in 2021 (RMI 2021 census report).

3.3.10 Samoa

Samoa is a volcanic archipelago at the western edge of Polynesia. Samoa's land area is around 2,934 km² consisting of two main large islands and four small islands, and a coastline length of 403 km. In contrast to the land area, the Samoa EEZ is estimated at 123,278 km² and is the smallest EEZ of the PICs.

The 2021 population was 205,557⁴⁴ with over 95 percent of the population living within 5 km of the coast.⁴⁵ The population is spread across the two main islands, with around 78 percent living on Upolu where the capital Apia is located, and around 22 percent living on Savai'i. Table 10 provides a breakdown of the population and household numbers by main regions as grouped in the 2021 census report. Table 12 also provides the number of households that own canoes and/or motorboats, fishing tools and conducting some fishing activity in 2016⁴⁶. The fishing activity is not split into inshore and offshore or targeting tuna and other pelagic species. The average per capita fish consumption is 87 kg ranging from 98 kg in rural areas to 46 kg in urban areas⁴⁷.

2021 Census				2016 Census		
Main region of Samoa	Total population	Number of households (HHs)	Number of HHs engaged in some fishing activity	Number of HHs owning a motorboat	Number of HHs owning a canoe	Number of HHs owning fishing tools
Apia Urban Area	35,974	5,876	838	132	135	281
Northwest Upolu	75,307	11,487	1,734	174	502	810
Rest of Upolu	49,101	7,036	2,773	177	922	1,910
All of Savai'i	45,175	6,711	2,900	71	967	2,029
Total	205,557	31,110	8,245	554	2,526	5,030

Table 12: Samoa population and household numbers by main regions in 2021, along with the number of households owning canoes and motorboats and fishing tools and engaged in fishing activities in 2016.

3.3.11 Solomon Islands

The Solomon Islands is an archipelago located at the north-eastern side of Melanesia. Solomon Islands' land area is around 28,230 km² consisting of 147 inhabited and 845 uninhabited islands, and a coastline length of 5,313 km. There are 9 Provinces and 6 main islands, Choiseul, New Georgia, Santa Isabel, Guadalcanal, Malaita and Makira. In contrast to the land area, the Solomon Islands EEZ is estimated at 1,547,600 km².

The 2019 provisional population was 721,455⁴⁸ with 65 percent of the population living within 1 km of the coast, and a further 26 percent living from 1-5 km from the coast.⁴⁹ The population is spread

⁴⁴ Samoa 2021 Census of Population and Housing.

⁴⁵ From the SPC Statistics for Development website: <https://sdd.spc.int/pw>

⁴⁶ Samoa 2016 Census of Population and Housing (briefing notes 1 and 4).

⁴⁷ SPC Policy Brief 1/2008, Fish and food security, website: https://www.spc.int/DigitalLibrary/Doc/FAME/Brochures/Policy_Brief1_08.html

⁴⁸ Provisional Count – 2019 National Population and Housing Census (November 2020).

⁴⁹ From the SPC Statistics for Development website:

[https://stats.pacificdata.org/vis?lc=en&df\[ds\]=SPC2&df\[id\]=DF_POP_COAST&df\[ag\]=SPC&df\[vs\]=2.0&dq=SB..&pd=2021%2C2021&ly\[cl\]=RANGE%2CINDICATOR](https://stats.pacificdata.org/vis?lc=en&df[ds]=SPC2&df[id]=DF_POP_COAST&df[ag]=SPC&df[vs]=2.0&dq=SB..&pd=2021%2C2021&ly[cl]=RANGE%2CINDICATOR)

across the 147 inhabited islands and coral atolls with around 18 percent of the population in Honiara the capital and administrative center. The remaining information from the 2019 census is still being analyzed, with Table 13 providing a breakdown of the population and household numbers by province from the 2009 census⁵⁰. Table 13 also provides the percentage of households that are involved in fishing activities in 2009 as well as the number of canoes, boats and outboard engines. The average per capita fish consumption across Solomon Islands is 33 kg ranging from 31 kg in rural areas to 45 kg in urban areas⁵¹.

Provinces in the Solomon Islands plus Honiara	2019	2009 Census					
	Provisional population from 2019 census	Population (2009)*	Households (HHs)	Percentage (%) of HHs involved in fishing activities	Number of canoes	Number of boats/ships	Number of outboard motors
Choiseul	30,619	26,379	4,712	79	5,239	440	539
Western	94,209	76,649	13,762	82	15,299	455	2,046
Isabel	30,399	26,158	5,143	79	5,203	475	644
Central	30,326	26,051	4,905	76	4,444	49	499
Rennell-Bellona	4,091	3,041	688	73	117	8	42
Guadalcanal	154,150	93,613	17,163	58	3,807	144	394
Malaita	173,347	137,596	24,421	49	12,986	699	1,234
Makira-Ulawa	52,006	40,419	7,173	75	3,401	113	200
Temotu	22,132	21,362	4,303	84	2,867	76	148
Honiara	130,176	64,602	8,981	13	374	89	357
TOTAL	721,455	515,870*	91,251	39	53,737	2,548	6,103

* There was an estimated undercount of 8.3 percent and the population in 2009 was more likely to be 551,525 people.

Table 13: Solomon Islands provisional population in 2019, and population and household numbers by province in 2009, along with the percentage of households involved in fishing activity, and the number of canoes, boats, and outboard motors in 2009.

3.3.12 Tonga

The Kingdom of Tonga is an archipelago at the south-western edge of Polynesia in the central Pacific. Tonga's land area is around 749 km² consisting of 169 islands of which 36 are inhabited, and a coastline length of 419 km. In contrast to the land area, the Tonga EEZ is estimated at 628,614 km².

The 2021 population was 100,179⁵² with everyone living within 5 km of the coast.⁵³ The population is spread through the 5 island groups, with around 75 percent on Tongatapu where the capital Nuku'alofa is located. Table 14 provides a breakdown of the population and household numbers by island group. Table 14 also provides the number of canoes, boats, in-board engines and outboard engines by island group. The 2021 Household Income and Expenditure Survey report indicated that fishers in Eua and Ongo Niua were more likely to fish for open water pelagic species than other areas of the country. The average per capita fish consumption is 20 kg across the country (urban and rural)⁵⁴.

Island groups	Population	Number of households	Number of canoes	Number of boats	Number of in-board engines	Number of outboard engines
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⁵⁰ Solomon Islands Government, 2009 population and housing census – National report.

⁵¹ SPC Policy Brief 1/2008, Fish and food security, website: https://www.spc.int/DigitalLibrary/Doc/FAME/Brochures/Policy_Brief1_08.html

⁵² Tonga 2021 Census of Population and Housing.

⁵³ From the SPC Statistics for Development website: https://sdd.spc.int/dataset/df_pop_coast

⁵⁴ SPC Policy Brief 1/2008, Fish and food security, website: https://www.spc.int/DigitalLibrary/Doc/FAME/Brochures/Policy_Brief1_08.html

Tongatapu	74,320	13,705	83	471	88	351
Vava'u	14,182	2,790	46	261	45	199
Ha'apai	5,665	1,157	42	134	13	114
Eua	4,864	931	4	13	1	12
Ongo Niua	1,148	264	0	12	0	9
Total	100,179	18,847	175	891	147	685

Table 14: Population and household numbers by island group in the Kingdom of Tonga in 2021, along with the number of canoes, boats, in-board engines and outboard engines by island group from the 2021 Census.

3.3.13 Tuvalu

Tuvalu is an island nation located at the north-western side of Polynesia. Tuvalu's land area is 26 km² consisting of 9 inhabited coral atolls and reef islands with a coastline length of 24 km. In contrast to the land area, the Tuvalu EEZ is estimated at 725,782 km².

The 2017 population was 10,645⁵⁵ with the entire population living within 1 km of the coast.⁵⁶ The population is spread across the 9 inhabited atolls with around 63 percent of the population on Funafuti the capital and administrative center. Table 15 provides a breakdown of the population by atoll from the 2017 mini-census, with the number of households by atoll either buying or selling pelagic fish from the Tuvalu agriculture and fisheries report⁵⁷. The average per capita fish consumption across Tuvalu in 2008 was estimated at 110 kg, ranging from 147 kg in rural areas to 69 kg in urban areas⁵⁸. More recently in 2016, the average fish consumption had dropped to 72 kg with 90 kg in the outer islands and 55 kg in Funafuti⁵⁹.

Islands of Tuvalu	Total population by where people are living	Number of households (HHs) by island	Number of HHs selling pelagic fish	Number of HHs buying pelagic fish
Funafuti	6,716	849	19	330
Outer Islands	3,929	777	66	522
All of Tuvalu	10,645	1,626	85	852

Table 15: Tuvalu population in 2017 with number of households by atoll and the number of households either buying or selling pelagic fish.

3.3.14 Vanuatu

The Republic of Vanuatu is an archipelago of volcanic islands located in the eastern half of Melanesia. Vanuatu's land area is around 12,281 km² consisting of 13 main islands plus around 65 other smaller islands, and a coastline length of 2,528 km. There are 6 Provinces, Torba, Sanma, Penama, Malampa, Shefa and Tafea. In contrast to the land area, the Vanuatu EEZ is estimated at 595,011 km².

The 2020 population was 300,019⁶⁰ with 64 percent of the population living within 1 km of the coast, and a further 30 percent living from 1-5 km from the coast.⁶¹ The population is spread around the country with around 16 percent of the population in Port Vila the capital and administrative center. Table 16 provides a breakdown of the population and household numbers by province in 2020, along with the number of households that are involved in fishing, either just for home consumption or those that sell all or part of their catch and the number of households that own a canoe or boat. The average

⁵⁵ Tuvalu Population and Housing Mini-Census 2017 Report.

⁵⁶ From the SPC Statistics for Development website:

[https://stats.pacificdata.org/vis?lc=en&df\[ds\]=SPC2&df\[id\]=DF_POP_COAST&df\[ag\]=SPC&df\[vs\]=2.0&dq=..COASTALPOPAF..&pd=2021%2C2021&ly\[rw\]=GEO_PICT&ly\[c\]=RANGE](https://stats.pacificdata.org/vis?lc=en&df[ds]=SPC2&df[id]=DF_POP_COAST&df[ag]=SPC&df[vs]=2.0&dq=..COASTALPOPAF..&pd=2021%2C2021&ly[rw]=GEO_PICT&ly[c]=RANGE)

⁵⁷ Tuvalu Agriculture and Fisheries Report based on the analysis of the 2017 Population and Housing Census.

⁵⁸ SPC Policy Brief 1/2008, Fish and food security, website: https://www.spc.int/DigitalLibrary/Doc/FAME/Brochures/Policy_Brief1_08.html

⁵⁹ Tuvalu Fisheries Department Annual Report 2021.

⁶⁰ 2020 National Population and Housing Census (Volume 1 version 2).

⁶¹ From the SPC Statistics for Development website:

[https://stats.pacificdata.org/vis?lc=en&df\[ds\]=SPC2&df\[id\]=DF_POP_COAST&df\[ag\]=SPC&df\[vs\]=2.0&dq=..COASTALPOPRF..&pd=2021%2C2021&ly\[rw\]=GEO_PICT&ly\[c\]=RANGE](https://stats.pacificdata.org/vis?lc=en&df[ds]=SPC2&df[id]=DF_POP_COAST&df[ag]=SPC&df[vs]=2.0&dq=..COASTALPOPRF..&pd=2021%2C2021&ly[rw]=GEO_PICT&ly[c]=RANGE)

per capita fish consumption across Vanuatu is 20 kg ranging from 21 kg in rural areas to 19 kg in urban areas⁶².

Provinces of Vanuatu	Total population all households (HHs)	Number of private HHs	Number of HHs fishing for home consumption only	Number of HHs fishing to sell some or all of their catch	Number of HHs with a canoe	Number of HHs with a boat
Port Vila (urban)	49,034	11,118	751	78	37	52
Luganville (urban)	17,719	3,584	677	61	34	31
Torba Province	11,330	2,392	940	690	343	39
Sanma Province	43,163	9,306	2,847	1,396	683	147
Penama Province	35,607	7,863	2,475	876	399	113
Malampa Province	42,499	9,715	4,045	1,729	1,105	156
Shefa Province	54,953	11,148	3,433	1,200	422	264
Tafea Province	45,714	8,239	2,678	1,365	461	99
TOTAL	300,019	63,365	17,846	7,395	3,484	901

Table 16: Vanuatu population and number of private households in 2020 by province along with the number of households involved in fishing for home consumption only, selling all or part of the catch, and the number of canoes and boats.

4 Potential Impacts and Management Measures

4.1 Identified Risks or Impacts

During the Programmes concept and preparation phases, the proposed activities were screened against the ten ESS of the CI-GCF ESMF. The environmental and social screening tool within the CI-GCF ESMF is a process that aims at reviewing a programme to identify whether it is likely to cause adverse social and environmental risks and/or impacts.

It enables an initial assessment of risks and/or impacts based on screening questions and enables CI to determine the category of the Programme and the ESS triggered by the Programme. Based on the results of the Safeguards Screening process, the proposed Programme will be classified as either Category A, B or C depending on the type, location, sensitivity and scale of the Programme and the nature and magnitude of its potential environmental and social impacts.

The AE has confirmed a rating of Category C as screening of the Programme activities identifies negligible or minimal inherent adverse impacts that have been avoided through design or can be minimized through implementation standard management measures. Below is a summary of the screening outcomes. The CI-GCF/GEF's environmental and social safeguard screening process includes screening for conflict-affected situations and risks. The AE confirms that no conflicts of medium or high risk were identified during the AE's screening and thus no further conflict assessment is necessary at this stage.

Inherent risks associated with the design and use of the FADs have the potential to cause minimal adverse environmental or social impacts which can be avoided or minimized through considerate activity design which responds to this ESMP.

Additionally, the sites for FAD installation have not yet been selected therefore the ESMP provides the process to avoid risks during site selection and outlines the process required for securing consent

⁶² SPC Policy Brief 1/2008, Fish and food security, website: https://www.spc.int/DigitalLibrary/Doc/FAME/Brochures/Policy_Brief1_08.html

from the community through linkages to the activity design and Stakeholder Engagement Plan (SEP).

CI-GCF ESMF Policy	Yes	No	TBD	Justification
POLICY 1: Environmental and Social Safeguards				
ESS 1: ESIA	X			<p>Based on the detailed description of Programme activities, the results of the screening and identified inherent risks determine a Category C risk rating for this Programme. ESS screening finds that 'there are minimal or no adverse environmental and/or social risks and/or impacts.</p> <p>An ESMP is determined to be an appropriate instrument for this Programme where there are still elements of activities which have not yet been determined (such as FAD deployment site selection), the ESMP and other safeguards instruments (Stakeholder Engagement Plan and Indigenous Peoples Plan) has been designed to provide coverage for avoidance of minimisation of potential risks and/or impacts without the need for additional site-specific screening.</p>
ESS 2: Protection of Natural Habitats and Biodiversity Conservation		X		<p>Not Triggered</p> <p>Small footprint and low impact artisanal FAD design is proposed for use in the Programme design. There are no infrastructure elements or required physical construction in the Programme.</p> <p>The Programme is not proposing activities that would have adverse impacts on natural or critical natural habitats, contravene applicable international environmental treaties or agreements or introduce or use potentially invasive, non-indigenous species.</p> <p>Furthermore, CI ESMF ESS 2 applies to potential significant impacts to Critical Habitats except for adverse impacts on a limited scale that result from conservation actions that achieve a Net Gain of the Biodiversity values associated with the Critical Habitat. Given the small scale and context specific design of the FAD, any impacts from lost FADs to natural habitats will be very limited in scale and will be as a result of an activity which is increasing biodiversity values of habitats by reducing fishing pressure.</p>
ESS 3: Resettlement and Physical and Economic Displacement		X		<p>Not Triggered</p> <p>No land is required for any project activities as there will be no construction of facilities.</p> <p>The Programme is not proposing management interventions that could result in physical and/or economic displacement. No restrictions will be placed on existing fishing methods, instead the Programme will be introducing alternative options for fish food</p>

CI-GCF ESMF Policy	Yes	No	TBD	Justification
				sources and an awareness campaign to encourage their use.
ESS 4: Indigenous Peoples	X			<p>Low Risk</p> <p>At the regional level, the 14 participating countries include communities with a diversity of customs, customary laws, norms, cultural practices, languages, and traditions meeting the broad GCF definition of Indigenous Peoples. However, at the Programme intervention level, communities across the PICs are, overall, considered to be homogenous in language, culture and practices. This means that Programme benefits or impacts will not adversely affect indigenous people under the GCF definition at the Programme site level. For this reason, indigeneity is considered at the community level encompassing marginalized and vulnerable groups and individuals. Best practice will be used and FPIC using traditional customer processes is integrated throughout Programme design and stakeholder engagement when identifying suitable sites for FADs. A SEP has been developed which sets out the process for obtaining community consent for FAD installation and provides the framework for undertaking inclusive community engagement.</p> <p>This is considered low risk given the inherent cultural norms across the PICs which prevent any type of Programme activities from taking place within communities without community support and/or approval.</p>
ESS 5: Resource Efficiency and Pollution Prevention	X			<p>Low Risk</p> <p>1. FADs which break loose from their mooring have the potential to become drifting marine pollution.</p> <p>The Programme is using a FAD system designed by SPC and will be securely anchored in a nearshore setting which minimizes the usual risks to FAD loss (through damage from large shipping vessels). FADs will also be installed with a GPS tracker to enable lost FADs to be easily recovered, repaired, and reinstalled.</p> <p>No specific management plan is required for this standard as SPC FAD design is specially contextualized to the nearshore environments of the PICs and recovery of lost FADs is built into activity design (Activity 1.1.6)</p> <p>This is considered low risk given the small artisanal nature of the proposed FADs and considering that</p>

CI-GCF ESMF Policy	Yes	No	TBD	Justification
				<p>SPC have specially targeted their FAD design to be suitable for these environments.</p> <p>2. Small volumes of concrete may be required for some small-scale works needed for container pads in two countries (to support cyclone-proof storage of FADs materials to fast-track recovery efforts in the event of severe climatic events) and there may be some need for small concrete anchor blocks to be constructed where alternative non-concrete anchoring systems are not used. Volumes of concrete required would be small and geographically spread throughout the participating countries. and the potential environmental risk would be minimal. Measures to avoid and mitigate this risk are provided in the ESMP (Section 4.2.2)</p>
ESS 6: Cultural Heritage		X		<p>Not Triggered</p> <p>There are no activities that will impact physical or intangible cultural heritage.</p>
ESS 7: Labor and Working Conditions		X		<p>Not Triggered</p> <p>There are no construction activities to be undertaken by direct, indirect or community workers.</p> <p>There will be no Programme workers employed in or deployed within the industrial fishing fleet or within MSMEs.</p> <p>SPC as the EE have had their Labor and Working Conditions policies, procedures, systems, and capabilities assessed during the PPF and found to meet all requirements of this standard.</p> <p>Furthermore, SPC are also an AE for the GCF therefore have their own embedded systems which have been audited and approved by the GCF as part of their accreditation process.</p>

CI-GCF ESMF Policy	Yes	No	TBD	Justification
ESS 8: Community Health, Safety and Security	X			<p>Low Risk</p> <p>1. Changing fishing methodology of some fishers from reef fishing to FAD fishing presents safety-at-sea risks. Safety-at-sea risks include: (i) operating new types or sizes of boat (mechanical and skills), (ii) fishing in new types of water conditions, (iii) inexperience or lack of data leading to exposure to weather events at sea, (iii) health and safety risks associated with using new type of fishing gear used for FAD fishing.</p> <p>A CHSS Plan has not been developed as part of the PPF, instead an activity (with three sub-activities) has been developed in the Programme log frame to specifically include addressing the risks associated with safety-at-sea (Activity 1.2).</p> <p>Activity 1.2 will be implemented in alignment with the requirement of this ESMP to ensure all applicable aspects of ESS 8 will be captured during implementation.</p> <p>This is considered low risk as fishers targeted by the Programme are already working under this risk and this Programme is providing them with an increased level of safety compared to the status quo. Despite the specific comprehensive activities proposed under this Programme, any time a fisher enters the marine environment there is a risk to safety that exists. That inherent risk of going to sea exists regardless of fishing method and complete avoidance of risk is impossible in any setting.</p> <p>Risk that the placement of FADs in areas of the marine environment which are either subject to traditional ownership or which are already traditionally fished by communities may lead to a sense of ownership over the FAD by some communities or groups to the point of exclusion of fishing access to other communities or individuals.</p>

CI-GCF ESMF Policy	Yes	No	TBD	Justification
				<p>There is also a risk associated with the post-harvest handling and processing of tuna. These risks are associated with histamine poisoning from tuna left in the sun for too long and botulism risks from incorrect processing of harvested fish. Both risks are well known and understood within the local fishing communities and within the Executing Agency. There are already existing materials for training in the PICs to avoid these risks and these training materials have been incorporated into the capacity building plans for activity implementation.</p> <p>Screening of the Programme against the GCF Sexual Exploitation, Abuse and Harassment (SEAH) Guidelines ⁶³ screening template for Programme activities indicates a very low level of risk for SEAH based on (i) the potential remote locations of FAD installation sites and (ii) beneficiary communities being potentially poor and lacking in resources. No other SEAH intervention level screening questions were identified as applicable to this Programme.</p> <p>Due to the very low level of risk, no specific ESMP driven interventions are required to prevent SEAH other than standard expected approaches through the Programme GAP and AGRM. The AE (Conservation International) and EE (SCP) have staff member trainees in the investigation of SEAH incidents and would be assigned to investigate any reported SEAH incidents. Furthermore, the AGRM has SEAH responses well integrated with a specific section outlining how the EE will manage SEAH-related grievances.</p> <p>Awareness raising on SEAH (including gender-based violence) is incorporated into the Programme through GAP Activities 1.3.2 and 2.2.2. Training also includes referral services information.</p>
ESS 9: Private Sector Direct Investments and Financial Intermediaries		X		<p>Not Triggered</p> <p>The Programme does not include direct investments from private sector or involvement of FIs.</p>
ESS 10: Climate Risk and Related Disasters		X		<p>Not Triggered</p> <p>The Programme seeks to improve the food availability for communities under the impacts of climate change. The proposed activities do not create risks of increased contribution to climate change nor do they lessen the resilience of communities.</p>

⁶³ <https://www.greenclimate.fund/document/sexual-exploitation-abuse-and-harassment-seah-risk-assessment-guideline>

4.2 Management Plan

4.2.1 Introduction

Sections 4.2.2 below contains the required management plan for the Programme. It describes details of the mitigation measures required, the responsible entity and the applicable Programme phase.

Section 4.2.3 provides the Programme team with some guidance for site selection for community FAD installations.

Section 4.3 provides some higher-level guidance to the EE and IA on how to ensure environmental and social safeguards are implemented into the technical advisory activities. This ensures that all contracts, TORs, policies, plans, frameworks, etc developed under this Programme are screened to ensure that the development process and the recommendations follow the principles of the Adaptation Fund.

4.2.2 Environmental and Social Management Plan

Proposed Activity	Identified Risks	Mitigation Measures	Responsible Party/Person	Timing	Expected Results	Monitoring Indicator / Responsibility / Timing	Cost Implication
Site Selection of Fish Aggregating Devices	Risk that the placement of FADs in areas of the marine environment which are either subject to traditional ownership or which are already traditionally fished by communities may lead to a sense of ownership over the FAD by some communities or groups to the point of exclusion of fishing access to other communities or individuals.	<ul style="list-style-type: none"> National FAD programmes will determine approximate areas for FAD installation. Specific site selection will be carried out with full involvement from communities and only selected with demonstrated broad community support. Environmental and social requirements (Section 4.2.3 of this ESMP) for selection of specific sites is integrated into Activity 1.1.5. Participatory planning principles, as detailed in the SEP will be implemented. Broad community support through FPIC will be established using Gender Equality and Social Inclusion (GESI) principles in engagement. The design of specific activities and the requirements of this ESMP ensure that this broad community support is established prior to confirmation of FAD sites. 	EE PMU and regional and country levels	Mitigation measures to be integrated into the FAD activity design and monitored throughout implementation.	Fully inclusive and community supported FAD sites selected with no negative impacts on individuals or groups.	<p>Documented participatory planning engagements and site selection parameters.</p> <p>Documented FPIC showing broad community support.</p> <p>SPC PMU</p> <p>Prior to deployment of FADs per site.</p>	No specific additional costs – part of existing Activity 1.1.5 design and budget
Installed FADs	FADs that break loose from their mooring have the potential to become drifting marine pollution.	<ul style="list-style-type: none"> The Programme is using a nearshore FAD system designed by SPC consisting of a single rope from the anchor to the floats. FAD will be securely anchored in a nearshore setting which minimizes the usual risks to FAD loss (through damage from large shipping vessels). FADs will also be installed with a GPS tracker to enable lost FADs to be easily recovered, repaired, and reinstalled. No specific management plan is required for this standard as SPC FAD design is specially contextualized to the nearshore environments of the PICs and recovery of lost FADs is built into activity design (Activity 1.1.6). FADs design does not utilize plastics or netting to act as an aggregator, instead local biodegradable materials such as bamboo or coconut fronds will be used. A bathymetric survey will inform site selection for each FAD which will enable suitable gently sloping site to be used which minimize the risk of premature loss from anchor slippage. 	EE PMU	Mitigation measures to be integrated into the FAD activity design and monitored throughout implementation.	FADs do not become marine pollution either through robust installation and design, or through occasional GPS recovery of lost FADs.	<p>Pre-deployment inspection of FADs.</p> <p>Pre-deployment verification of pre-approved FAD site.</p> <p>FAD Technical Advisor and SPC PMU</p> <p>Prior to deployment of FADs per site</p>	No specific additional costs – part of existing Activity 1.1.6 design and budget
Use of FADs by Fishermen	<p>Changing fishing methodology of some fishers from reef fishing to FAD fishing presents safety-at-sea risks. Safety-at-sea risks include:</p> <p>(i) operating new types or sizes of boat (mechanical and skills)</p> <p>(ii) fishing in new types of water conditions</p> <p>(iii) inexperience or lack of data leading to exposure to weather events at sea</p>	<ul style="list-style-type: none"> Activity 1.2 (implemented through three sub-activities) has been developed in the Programme log frame to specifically addressing the risks associated with the safety-at-sea risks identified here. To establish a baseline of current safety risks, sub-activity 1.2.1 will conduct a needs analysis for improved vessel safety for small-scale fishers using FADs. This will then inform the design, building and testing of recommended safe and efficient prototype vessels. Prototype vessels will be used for safety training with fishers in each country. Sources of financing to construct these vessels will be identified. Sub-activity 1.2.2 will provide fishers with improved and customized marine weather forecasting delivered nationwide through mobile applications. 	SPC Project Management Unit	During Programme inception, prior to the deployment of FADs for use.	Fishers are comfortable with the knowledge provided using safety equipment at sea, they have the equipment needed to ensure their safety and participating countries are	<p>Programmes M&E framework for Activity 1.2 is applied.</p> <p>SPC PMU</p> <p>Throughout activity implementation.</p>	No specific additional costs part of existing Activity 1.2 design and budget

Proposed Activity	Identified Risks	Mitigation Measures	Responsible Party/Person	Timing	Expected Results	Monitoring Indicator / Responsibility / Timing	Cost Implication
	(iv) health and safety risks associated with using new type of fishing gear used for FAD fishing.	<ul style="list-style-type: none"> Sets of safety equipment will be provided to fishers in need of updated equipment and wider training will be provided on the use of this equipment under sub-activity 1.2.3. 			able to use identified funding to construct tested prototype vessels.		
Small scale concrete production for some FAD anchor blocks and up to 2 concrete pads for 20ft containers.	Small-scale production and use of concrete for installation footings leading to localised contamination or soils from concrete slurry or wastewater.	<ul style="list-style-type: none"> Concrete will be prepared on bunded and covered hard stand surface. All wastewater from concrete production will be collected to allow particulates to settle out before being discharged. Slurry from concrete production will be collected allowed to harden Solid and cured concrete waste is considered safe to be reused by the community for infrastructure maintenance. Workers will be provided with appropriate PPE. 	EE PMUs	Mitigation measures to be integrated into planning/design of activity and implemented during building stage	Fully contained concrete use and production with no environmental impacts	<p>No signs of concrete waste or spills following completion of works.</p> <p>EE Safeguards Officer</p> <p>During and on completion of concrete work.</p>	No additional costs – part of activity development budget
Handling and Processing of Tuna Post-harvest	These risks are associated with histamine poisoning from tuna left in the sun for too long and botulism risks from incorrect processing of harvested fish.	<ul style="list-style-type: none"> Under Activities 1.3 and 2.2, a programme will be designed to provide training for the improvement of post-harvest handling of tuna. Design of the training will commence with a needs assessment to determine the requirements which are specific to the target communities. The needs assessment will provide a baseline to these risks in relation to the target communities and identified preferred post-harvesting techniques. The training programme will integrate existing material developed by SPC, CI and WorldFish (for FAD fishing in Palau) to avoid the risks of histamines. The training programme will also integrate existing FAO training materials (developed for canning in Kiribati) to avoid the risks associated with canning. 	EE PMUs	Prior to the deployment of FADs on a country-by-country basis.	No instances of histamine poisoning or botulism from FAD-caught fish.	<p>Programmes M&E framework for Activity 1.2 and 2.2 is applied.</p> <p>SPC PMU</p> <p>Throughout activity implementation.</p>	No specific additional costs as materials already exist. Integration of existing material into training programme exists as part of Activity 1.3 budget
Design, Implementation, and Management of Programme Activities	Duty bearers may not have the capacity to uphold their duties within the project.	<ul style="list-style-type: none"> Training and capacity building will be integrated into project design to support duty bearers (particularly members of the Project Board, project staff and consultants and government officials). Budget to address gender/ safeguards issues will be allocated as necessary such that technical support and training on gender and safeguards is provided to the country level PMUs at start of project. The Programme M&E process will monitor the development of capacity within the project team and stakeholder groups. 	SPC Project Management Unit	Mitigation measures to be integrated into the Programme design and monitored throughout implementation.	Duty bearers feel empowered and knowledgeable in performing their role.	<p>Attendance records of gender and safeguards trainings.</p> <p>Programme M&E process is applied.</p> <p>SPC PMU</p> <p>Throughout activity implementation</p>	Part of the training and capacity building budget. Budget for country level PMU training should account for half day training (remote) on safeguards and gender.

4.2.3 FAD Site Selection Guidance

The SPC Manual on Fish Aggregating Devices⁶⁴ provides technical guidance on the placement of community FADs. The entities tasked with deploying the FADs (the National Fisheries departments/ministries) are required to follow these guidelines as part of the existing activity design and budget. This manual advises that the main characteristics of a site to look for on marine charts are:

- i. areas with a gentle sloping sea floor rather than a steep drop-off,
- ii. a reasonable depth of water (usually 200 to 400m for inshore FADs) that is within the range of vessels going to fish the FADs,
- iii. look for low current areas,
- iv. consider proximity to protected areas and known habitats of species in the IUCN list,
- v. and that the distance between FADs is adequate (usually 10 to 12 nautical miles apart).

In addition to the technical characteristics, the FAD site selection should also take the following environmental and social suggestions into consideration:

- i. Relationship of site to nearby communities. How many communities' fish the identified sites? Is there the potential for causing conflict between communities if the FAD is placed in shared fishing grounds? Have consultations been carried out with all interested parties to understand any potential conflicts of use.
- ii. Number of potential fishers who may be able to benefit from the FAD installation. Targeting sites with maximized number of beneficiaries and with an existing fishing community who are well placed to make best use of the FAD.
- iii. Proximity of any existing FADs.

The SPC Manual on Fish Aggregating Devices also provides guidance on the correct deployment practices for FADs including:

- i. Using an appropriate vessel (or vessel with towed barge platform) with GPS and a depth sounder.
- ii. Prepare the FAD at the stern of the vessel with the block mounted securely on a platform projecting over the stern with chains and ropes laid out in sequence on the deck next to the elevated block.
- iii. Deploy in suitable conditions with winds less than 10 knots.
- iv. Follow the current direction for deployment of the FAD, either parallel or perpendicular to the reef using the calculations provided in the SPC manual (page 30) to set the starting and finish GPS waypoints for FAD block and bouy setting.
- v. Allow 15 minutes for the FAD block to reach the bottom and for it to settle.
- vi. Aggregators are then attached.

No corals or other ecosystems will be damaged given the depth of 200-400m waters for FAD deployment. It is highly unlikely to damage any corals at this depth as most reef building corals are generally found at depths of less than 50m where sunlight penetrates. These are all small-scale anchored FADs, not oceanic drifting FADs.

Eligibility criteria and selection process for FAD sites - Sub-Activity 1.1e

All steps involved in site selection for FADs to be deployed in each Participating Country must meet best practice standards endorsed by SPC as the Executing Entity⁶⁵. The following eligibility criteria will

⁶⁴ <https://coastfish.spc.int/component/content/article/363-manual-on-fish-aggregating-devices-fads-lower-cost-moorings-and-programme-management>

⁶⁵ SPC (2017) Sustainable national artisanal FAD programmes: what to aim for. SPC Policy Brief 31/2017

be used by SPC and the national fisheries agencies for FAD site selection. All eligibility criteria must be met for a site to be eligible for FAD deployment:

- Best available information demonstrates that the proposed community for FAD deployment has insufficient fish for recommended dietary protein intake per capita.
- Verification by SPC and national fisheries agency that location of community is within the area occupied by the targeted beneficiary population documented in Technical Study 3 / Annex 23.
- Assessment conducted by national fisheries agency confirms that community lacks access to sufficient, functioning FADs.
- National fisheries agency confirms that community has enough fishers to (i) ensure that the FAD will be used regularly when tuna and other large pelagic fish are seasonally abundant, and (ii) catch is likely to be sufficient to significantly increase availability of dietary protein.
- Based on the outcome of community consultation (as outlined in Annex 7) national fisheries agency confirms that there is a general area where good catches of tuna have been made relatively close to the village and that the nominated area for the FAD is at least 5-10 km away from other FAD sites (per SPC best practice standards, see footnote below - if standards change during implementation, programme practices will adhere to current best practice standards) to prevent interference with the ability of each FAD to aggregate fish.
- Endorsement of the site selected for installation of the FAD by the beneficiary community, and local government where relevant, following community consultation conducted by the national fisheries agency. This consultation involves not only site selection but also includes confirmation that the population is sufficient to consume FAD caught fish and identification of the mechanisms that ensure all fishers within the community have access to the FAD. Where multiple communities will share a FAD, consultations will include all relevant communities.
- Verification by the national fisheries agency that the nominated general area for installation of a FAD is aligned with national or local government permitting or regulatory conditions (e.g., shipping lanes, marine protected areas), customary regulations (e.g., ‘tambu’ sites in Solomon Islands where fishing is not permitted) and confirmation that the FAD site will not result in environmental damage (e.g., impacts on mapped deepwater coral or gorgonian communities).
- Availability of suitable substrata for anchoring a FAD in the nominated area where tuna have been caught regularly. Identification that the site is suitable for anchoring a FAD within the nominated area based on bathymetric surveys conducted by national fisheries agency staff trained by SPC to ensure that i) the FAD anchor will not slide into deeper water, and ii) the ropes attaching the FAD to the anchor will not be damaged by rubbing against any benthic structure.

4.3 Technical Assistance and Plan Development

4.3.1 Policy and Plan Development

Any activities which require the development of policies or plans will adhere to the GCF ESP, this ESMP, the SEP, and the Gender Action Plan (GAP) to ensure that all affected parties are engaged in the process of development and that broader impacts on gender, environment, etc. are considered.

All sub-grants issued by SPC as EE (to Technical Partners, SPC Member Grantees, and others) during implementation of the Programme will be subject to ESS review and monitoring by SPC to ensure compliance with CI's ESMF and this ESMP including that no Category A or B interventions are undertaken through these sub-grants.

4.3.1.1 Gender Mainstreaming

The design of the Programme requires equal and active participation, however, there is a risk that gender may not be mainstreamed into management plans developed under this Programme.

To ensure these activities fully incorporate the CI ESMF Gender Mainstreaming Policy, the PMU will be resourced with a full time Gender Equality and Social Inclusion Officer. They should undertake a gender-sensitive review of any management plans or policies (state or national level). The specialist should refer to experiences and tools from previous Climate Change Adaptation and Disaster Risk Management programmes in the Pacific Islands, e.g., PACC, GCCA, IWRM, Pacific Gender & Climate Change Toolkit as well as the Programme's Gender Action Plan and the associated guidelines for any plans or policies developed as part of the Programme.

4.3.2 Consultants

Consultants will be required for the technical reviews, studies, assessments, and plan development associated with the Programme activities. They may also be required for other technical, governance and capacity building activities. TORs for any consultants will require the consultant to comply with the GCF Environmental and Social Policy and the Programme's SEP and GAP.

For all technical assistance consultants this ESMP will be included in the TOR and final contract.

Guided by the Gender Action Plan, key performance metrics will also be developed for consultants which will include gender and cultural sensitivity.

4.3.3 Capacity Building and Materials Development

Awareness materials will be developed and awareness raising activities will be undertaken under the Programme aimed at the public for raising awareness on climate change, nutritious food availability and safe FAD fishing techniques.

All materials will be in the form and language that are tailored to be culturally appropriate for the country in which it is being delivered, is understandable and accessible to affected persons and stakeholders.

Gender balance shall be required during the activities to ensure that women are equally represented. The Programme Gender Action Plan shall be used to guide the development of any materials.

5 Institutional Arrangements and Capacity Building

5.1 Roles and Responsibilities

The roles and responsibilities of Programme staff and associated agencies in the implementation of this ESMP is as follows.

5.1.1 Programme Steering Committee

Within the overall governance framework of the management of the programme SPC will, in association with Conservation International (CI) establish a Programme Steering Committee (PSC). The PMU will act as Secretariat to the PSC.

The wider objective of the PSC is to provide an effective mechanism for the communication of Programme planning, management and delivery across all stakeholders and parties to the Programme and to ensure effective Programme activity delivery monitoring and review. The principal functions of the PSC will be to provide strategic guidance and support the adaptive management of Programme implementation, review progress and evaluation reports, discuss problems or strategic issues that might arise during implementation, and provide a mechanism to support the inter-governmental coordination and contribution to Programme activities.

5.1.2 Executing Entity

The EE for this Programme is SPC. The EE is the entity to which the CI-GCF Agency has entrusted the implementation of CI assistance specified in this signed Programme document along with the assumption of full responsibility and accountability for the effective use of CI resources and the delivery of outputs, as set forth in this document. The EE PMU will be resourced with a full time GESI Officer who will be tasked with supporting the PMU and the country technical officers to implement the requirements of the ESMP, GAP and SEP particularly.

The PMU is responsible for executing this ESMP and all other project safeguards plans. Specific tasks include:

- Execute ESMP, SEP and GAP and monitor the effectiveness of risk mitigation measures; ensure compliance with and adherence to all safeguards outlined in each of the plans and undertake corrective measures in cases where plans have not been satisfactorily executed or where negative or adverse impacts have arisen despite efforts to adhere to Programme plans.
- Inform Programme-affected, local authorities, other stakeholders and the CI-GCF Agency on Programme progress and on any unexpected and unintended events affecting those communities in accordance with Programme-level plan requirements as well as the Programme's agreed upon reporting schedule.
- Complete required progress reports to document safeguard monitoring.
- Ensure effective operation of a Programme AGRM and immediately inform the CI-GCF Agency of complaints that carry reputational risks to CI or GCF.

5.1.3 Conservation International

CI is accountable to the GCF for the implementation of this Programme. This includes overseeing Programme execution undertaken by the EE to ensure that the Programme is being carried out in accordance with CI and GCF policies and standards. CI is responsible for the Programme's assurance function.

CI's role is as follows:

- Review and monitor the implementation of all safeguards plans for the Programme, including through Programme kick-off/launch workshops, supervision missions, mid-term reviews, field visits, audits, and follow-up visits as appropriate to the scale, nature, and risks of the Programme.
- Work with the EE to identify and plan for corrective measures that achieve the results and uphold the safeguard standards expected under the Programme.
- Identify the need for and approving third party monitoring or independent audits as appropriate.
- Disclose Programme monitoring reports that include safeguard/performance, and any corrective actions.
- Disclose completed Programme evaluations and results through CI website (following donor acceptance, and subject to exclusion of proprietary, confidential, and personal information).

5.2 Capacity Building and Training

Specialists with relevant expertise in social and environmental safeguards will be engaged to support the implementation of the ESMP, SEP and GAP. These Specialists will be the GESI Officers employed by the EE PMU. The GESI Officers will oversee the training and support to national level GESI focal points supporting the overall programme within the 14 fisheries ministries and departments.

The CI-GCF Agency will provide advice to Programme teams as needed to support the implementation of this ESMP and other safeguards plans.

The integration of those plans will need to consider particular institutional needs within the implementation framework for application of the ESMP, including a review of the required budget allocations for each measure, as well as the authority and capability of institutions at different administrative levels (e.g., local, regional, and national), and their capacity to manage and monitor ESMP implementation. Where necessary, capacity building and technical assistance activities will be included to enable proper implementation of the ESMP.

The EE and other partners will require training to ensure effective implementation and oversight of the ESMP, SEP and GAP.

Areas recommended for training include the following –

- CI ESMF policy areas and ESSs that are relevant to the Programme activities.
- Roles and responsibilities of different key agencies in safeguards implementation.
- How to effectively integrate the ESMP and other safeguards instruments project management, implementation, monitoring, and reporting.
- Management of the AGRM.
- How to facilitate meaningful participatory planning community consultations.

On-going support will be provided to the country level PMUs by the EE for the duration of the Programme.

While SEAH was not identified as a likely risk in this programme and no additional ESMP interventions are required given the very low risk rating and the measures already integrated into programme design in the AGRM and GAP, both the AE and EE have Senior level staff who are trained in responding to grievances involving GBV and SEAH.

The AE & EE have capability to conduct the investigation but regional/international entities who specialize in nature conservation will be offered as referrals if needed. The immediate,

highly complex and culturally specific care that a SEAH survivor will need should be provided at the most local level.

Below are some examples of country-level GBV/SEAH referral services:

RMI GBV service directory & referral tool: [Annex 3 IOM GBV Directory FINAL Oct 19 2021.pdf \(sprep.org\)](#)

Kiribati SOP for GBV response: [2018 Kiribati SafeNet GBV SOP.pdf - Google Drive](#)

Fiji community response & referral guidelines: [Fiji GBV + CP Guide for Community Workers.pdf - Google Drive](#)

Samoa GBV SOP: [GBV-SOP-Samoa-final SOP 28Sept-final-final-for-printing-June-1.pdf \(health.gov.ws\)](#)

Solomons: The Ministry of Women, Youth, Children and Family Affairs ([MWYCFA](#)) is the lead Ministry and Solomon Islands has in place SAFENET. SAFENET is a network of government and non-government organizations to strengthen referral and coordination of sexual and gender based violence (SGBV) services. It aims to streamline the assistance being provided to survivors and help them access more timely and necessary services.

Tonga service delivery protocol for responding to GBV: [Tong National SPD 2021.pdf - Google Drive](#)

Tuvalu: Lead Agency : [Ministry of Health, Social Welfare and Gender Affairs](#)

Vanuatu SOP to respond to SGBV: [GBV-SOP_Vanuatu_181121-1.pdf \(sistalibrary.com.vu\)](#)

6 ESMP Budget

Annual funding for implementation of the ESMP is included in the Programme budget. Costs for the mitigation measures related to activity design, capacity building and training implementation and community consultations and training of national technical officers identified in Section 4.2 have been integrated into the specific activity costs in the FP.

The estimated costs in Table 17 below are specifically associated with the PMUs responsibilities towards the implementation of this ESMP.

Table 17: Estimated ESMP Annual Implementation Budget

Item	Notes	Annual Cost (USD)
PMU GESI Officer	Full time position within the PMU providing regional support to technical officers in all 14 participating countries.	\$115,000
Total	Annual ESMP Budget	\$115,000