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# Federated States of Micronesia, Kiribati, Marshall Islands and Tuvalu

# Small Islands Food and Water Project (SIFWaP)

# Project Design Report

# Main Report and Annexes

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**Table of Contents**

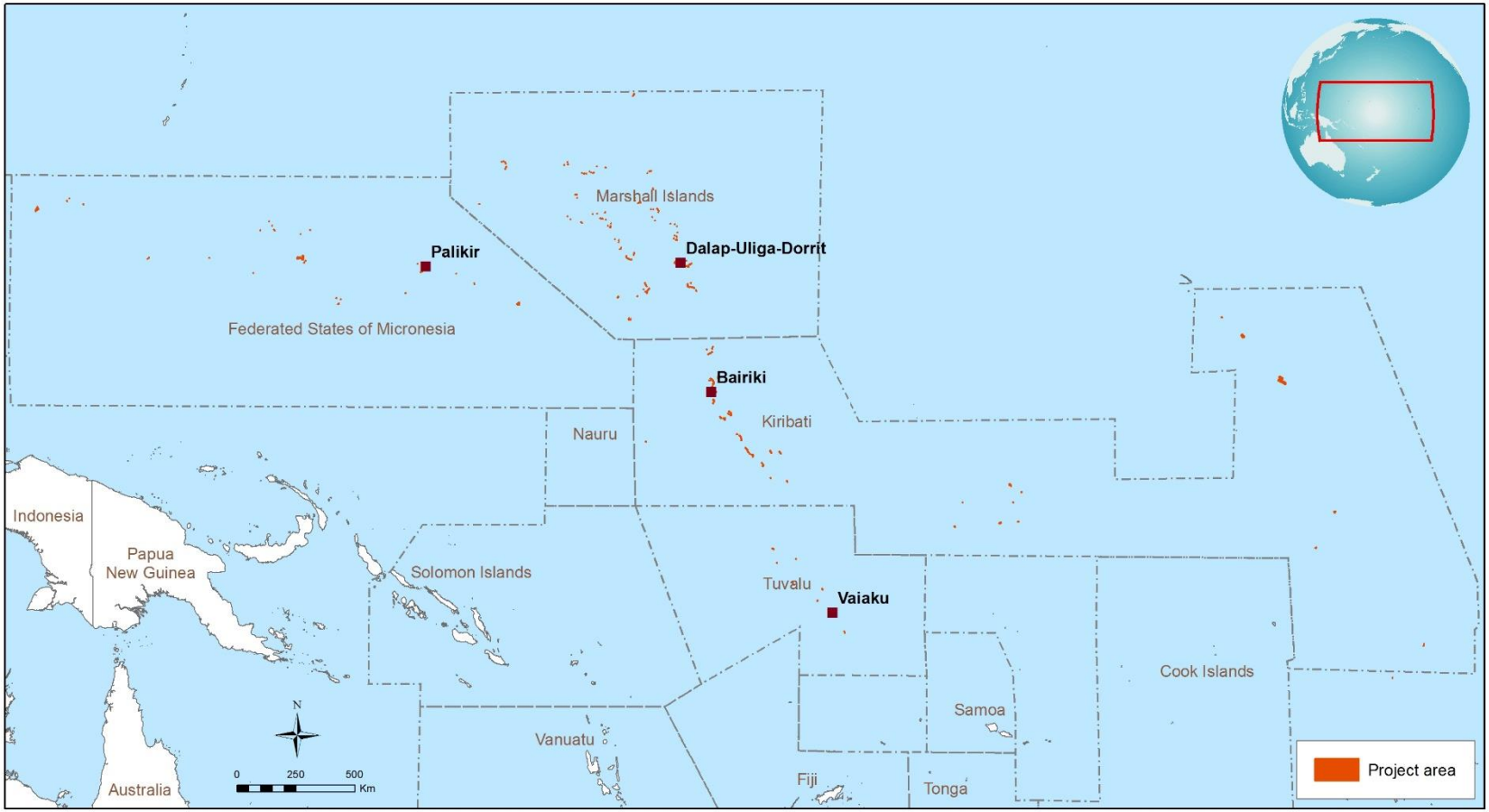
**Main Report Annexes**



**Working Papers**

## Tuvalu, Federated States of Micronesia, Republic of Marshall Islands and Kiribati

Small Islands Food and Water Project (SIFWaP)

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*Map compiled by IFAD* | 03-09-2019

**Abbreviations and Acronyms**

| | |
|---|---|
| ACIAR | Australian Centre for International Agricultural Research |
| AUD | Australian Dollar |
| AWPB | Annual Workplan and Budget |
| CDC | Community Development Committee |
| CDD | Community-Driven Development |
| CDP | Community Development Plan |
| CFO | Community Field Officer |
| CIGs | Common Interest Groups |
| CPF | Country Programme Framework (FAO) |
| CPCU | Central Project Coordination Unit |
| CPSC | Country Project Steering Committee |
| CSA | Climate Smart Agriculture |
| DA | Designated Account |
| DFAT | Department of Foreign Affairs and Trade (Australia) |
| EFA | Economic and Financial Analysis |
| EOI | Expression of Interest |
| ESMF/P | Environmental and Social Management Framework/Plan |
| FAO | Food and Agriculture Organisation |
| FSM | Federated States of Micronesia |
| GAFSP | Global Agriculture and Food Security Programme |
| GAP | Global Action Programme on Food Security and Nutrition in SIDS |
| GCF | Green Climate Fund |
| GDP | Gross Domestic Product |
| GEF | Global Environment Facility |
| GESI | Gender Equality and Social Inclusion |
| GYO | Gender and Youth Officer |
| GRM | Grievance Redress Mechanism |
| HHMs | Household Methodologies |
| IDU | Island Delivery Unit |
| IFAD | International Fund for Agricultural Development |
| IFs | Island Facilitators |
| KM | Knowledge Management |
| KOIFAWP | Kiribati Outer Islands Food and Water Project |
| M&E | Monitoring and Evaluation |
| MDGs | Millennium Development Goals |
| MELAD | Ministry of Environment, Lands and Agricultural Development (Kiribati) |
| MOFs | Ministries of Finance |
| MTR | Mid-Term Review |
| MoU | Memorandum of Understanding |
| NAIP | National Agricultural Investment Plan |
| NCDs | Non-Communicable Diseases |
| NDU | National Delivery Unit |
| NGO | Non-Government Organisation |
| O&M | Operation and Maintenance |

| | |
|---|---|
| ODA | Official Development Assistance |
| PCR | Project Completion Review/Report |
| PDR | Project Design Report |
| PICs | Pacific Island Countries |
| PIFON | Pacific Islands Farmer Organisations Network |
| PIM | Project Implementation Manual |
| PSC | Project Steering Committee |
| RMI | Republic of the Marshall Islands |
| SAMOA | SIDS Accelerated Modalities of Action |
| SDGs | Sustainable Development Goals |
| SECAP | Social, Environmental and Climate Assessment Procedures (IFAD) |
| SIDS | Small Island Developing States |
| SIFWaP | Small Island Food and Water Project |
| SOE | Statement of Expenditure |
| SPC | The Pacific Community |
| TORs | Terms of Reference |
| USA | United States of America |
| US$ | United States Dollar |
| WA | Withdrawal Application |
| WUG | Water User Group |

**National Currencies and Exchange Rates**

| | |
|---|---|
| FSM | US dollars (US$) |
| Kiribati | Australian Dollars (AUD) |
| RMI | US dollars (US$) |

Tuvalu Australian Dollars (AUD)

AUD 1.00 = US$ 0.78 (May 2021)

## Executive Summary

### Context

The four SIFWaP countries are among the smallest, most isolated and fragile of the Small Island Developing States (SIDS). They mainly comprise coral atolls scattered over a vast area of ocean with a total population of 286,400 and an average population density of 167 persons per square kilometre. High population densities combined with the low productivity of agro-ecological systems and remoteness contributes to a precarious food and nutrition security situation across the region.

Agriculture has been the mainstay of sustainable livelihoods in the North Pacific for centuries. However, in recent decades the traditional livelihood systems have broken down with serious consequences for food and nutrition security. Most of the islands also face water security challenges, especially on the heavily populated atolls, exacerbated by increasing temperatures, rising sea level and periodic droughts.

All four countries are classified by the World Bank as fragile states, and several aspects of fragility will be addressed by the project: (i) heavy dependence on food imports; (ii) lack of availability, access and consumption of drinking water and nutritious foods; (iii) difficult agricultural conditions; (iv) un-reliable access to water for consumption and agriculture; (v) high levels of emigration; (vi) vulnerability to climate change; and (vii) transport/logistic challenges which amplify all of these. They also face significant challenges with regard to gender and youth participation, disability and social inclusion.

### General Approach

- **Multi-Country Approach:** FSM, Kiribati, RMI and Tuvalu have decided to adopt a multi-country approach, because they are amongst the smallest of the SIDS and would benefit from economies of scale in project design, implementation and supervision. The project includes a common implementation framework, with decentralised decision-making and administrative modalities, with flexibility for countries and communities to determine their own priorities.
- **Strength-Based Approach:** SIFWaP will build on the inherent strengths of the traditional cultures and livelihood systems that have sustained these communities in a harsh environment. The project will build on traditional knowledge, organisations and resilience practices, indigenous food systems, and community structures; complemented by efforts to regenerate traditional agriculture and food systems and new technologies that are adapted to climate challenges.
- **Community Engagement:** The model will build on the IFAD-supported Kiribati Outer Islands Food and Water Project (KOIFAWP) which has been successful in engaging communities and is delivering material benefits to remote outer island communities as well as building social cohesion and mobilising the commitment of women and youth groups.
- **Partnerships:** The implementing agencies in each country have limited outreach in isolated communities, especially on the outer islands. Project implementation will therefore depend on partnerships with other agencies including NGOs, CBOs, Farmer Organisations, producer associations and the private sector. In addition, SIFWaP will build on potential South-South Triangular Cooperation (SSTC) opportunities, whereas the knowledge and experience in neighbouring countries and other SIDS will be key in supporting the scaling-up of innovative solutions which have been successfully implemented elsewhere.
- **Non-Prescriptive Approach:** The project will enable communities, households and individual participants to plan and undertake investments in pursuit of improved food, nutrition and water security. Activities may be of a public good

nature, benefiting the entire community, or private good type activities undertaken by individuals or small groups. This approach will also allow for innovative solutions to be piloted.

- **Approach to Financing:** SIFWaP will provide financial support to communities, groups and individuals to implement their priority activities based on an indicative list. Activities will be eligible for support provided they are consistent with Project objectives and targeting criteria, and are not included in the exclusion list. The preferred financing instrument is a matching grant scheme, as generally financial services are not accessible by groups or individuals.

**Project Objectives**

The **goal** of SIFWaP is for people living in the beneficiary communities to have access to sustainable and healthy diets. SIFWaP's **development objective** is to strengthen household resilience to shocks by improving food, nutrition and water security and livelihood opportunities in the small island communities. There are three intervention pathways leading to the development objective:

- Sensitising and enabling communities to diagnose, prioritise and implement activities to address food, nutrition and water security.
- Investing in projects to strengthen resilience by addressing food, nutrition and water security at community, group or household level.
- Developing an enabling policy framework for addressing food, nutrition and water security.

**Target Groups and Targeting Approach**

Beneficiaries will include all households in the target communities. These include rural communities on outer islands as well semi-rural communities on the main/capital islands, who also rely heavily on subsistence agriculture and face many of the same challenges as fully rural farming households. The project will reach around 8,000 beneficiary households through 200 communities, corresponding to about direct 50,000 household member beneficiaries, approximately 17% of the population. A two-level targeting approach will be employed: targeting beneficiary islands in the first stage and then, for larger islands, beneficiary communities within these islands. Community facilitators will assess the possibilities (i) for participatory identification of most the vulnerable households within a community, and (ii) for targeting these households, through improved access to services and resources and assistance with appropriate income-earning activities.. SIFWaP's social inclusion strategy aims to adopt differentiated approach to achieve the full involvement of all population groups, i.e. women (including women headed households) and men, female and male youths, people with disability (PWD) and other vulnerable and disadvantaged groups.

**Component 1: Community Engagement**

Component 1 will be the entry point for Component 2 investments, and will focus on equitable and inclusive engagement with beneficiary communities and households. It will initiate community-based awareness raising and participatory/inclusive community development planning, in particular to support nutritious food production and consumption and water supply management with special measures to ensure the meaningful participation of women, youth, PWD and other vulnerable/disadvantaged groups SIFWaP will benefit from the experiences of KOIFAWP and other similar projects in the region through SSTC, and where feasible will adapt existing training materials. This will also allow to combine traditional solutions with more innovative approaches.

**Outcome 1:** Communities are engaged in activities to promote food, nutrition and water security

- Sub-component 1.1: Community Consultation and Mobilisation. **Output 1.1:** Community Committees are operational and communities prepared Community Development Plans.
- Sub-component 1.2: Nutrition and Health Awareness. **Output 1.2:** Communities are trained on food and nutrition.

**Component 2: Investments in Food, Nutrition and Water Security**

Component 2 will focus on the hard investments for food, nutrition and water security. The component will enable private investments as well as community-based public investments using matching grants.

**Outcome 2:** Communities, activity groups and individuals invest in local production and consumption of nutritious foods and improved water management.

- Sub-component 2.1: Private Good Investments. **Output 2.1:** Private investments to increase production of nutritious foods for home consumption and/or sale are supported.
- Sub-component 2.2: Public Good Investments. **Output 2.2:** Water supply systems and other infrastructure in rural communities are installed and maintained.

**Component 3: Enabling Policy Framework**

Component 3 focuses on the enabling environment for food, nutrition and water security, to facilitate policies and programmes conducive to these objectives at the national level and over the long term. This component focuses on the development of the National Agricultural Investment Plans (NAIPs), and will involve a number of different stakeholders, including Farmers' Organisations.

**Outcome 3:** Well-defined investment plans for food, nutrition and water security are in place in each country.

- Sub-component 3.1: National Policies and Strategies. **Output 3.1:** National Agricultural Investment Plans are prepared for each country.

**Component 4: Project Coordination, Management and Capacity Building**

Component 4 will comprise the project coordination and management activities as well as the project Monitoring and Evaluation (M&E) and knowledge management.

- Sub-component 4.1: Project Coordination and Capacity Building
- Sub-component 4.2: Project Management
- Sub-component 4.3: M&E and Knowledge Management

**Implementation Period**

SIFWaP will be implemented over six years in four phases:

- Phase 1: Implementation planning and preparatory activities (Year 1)
- Phase 2: First phase of implementation (2-3)
- Phase 3: Second phase of implementation (Years 4-5)

- Phase 4: Consolidation and project completion review (Year 6)

**Project Costs and Financing**

Total project costs are estimated at US$ 19.29 million, over the 6-year implementation period. The project will be financed by a GAFSP grant of US$ 11.65 million US$, government direct contributions amounting to US$ 1.83 million, beneficiaries' in-kind contributions amounting to US$ 2.33 million and a financing gap of US$ 3.47 million. GAFSP also provided a US$ 350,000 grant for project preparation ("PPG"), which is not included in the overall project costs. The PPG funds are earmarked to be used for project preparatory work, constituting TA provided by FAO and IFAD for the detailed project design, as per noted in the Appendix 3 of the GAFSP Proposal.

Separate Financing Agreements (FA) will be established with each country Recipient (MoF) for channelling funds to the respective National Implementing Agencies (NIAs). Each FA will initially include approximately 60% of the eligible amount for the respective country, including 40% of the Grant and Subsidies category, and 60% of the Operational Costs category. This reflects the implementation stages of the project, whereas the Grants can only be disbursed once the community mobilisation activities are completed.

In order to be eligible to obtain the remaining allocation, which will be provided through an FA amendment, each country will be required to achieve a set of implementation targets and meet certain performance criteria which will be agreed during Phase 1 of the project. This arrangement is intended to incentivise each country to implement activities in order to obtain the full allocation, and by rewarding strong performers with additional financing.

**Allocation between Countries**

The indicative *total* country allocations for the GAFSP grant, are US$ 3.5 million for FSM, US$ 3.5 million for Kiribati, US$ 2.6 million for RMI, US$ 1.9 million for Tuvalu.

These amounts represent the portion of the GAFSP grant which will be used for investments and activities in each respective countries, and include the costs of the Central Project Coordination Unit (CPCU), which will be managed by IFAD on behalf of the recipient countries to provide the necessary support and technical assistance to the implementation units, and the budget for FAO who will implement a part of the Policy component.

The indicative *eligible* country allocations of the GAFSP grant which each country is eligible to receive for direct implementation of activities, excluding the amounts for CPCU and FAO, are US$ 3 million for FSM, US$ 3 million for Kiribati, US$ 2.1 million for RMI, US$ 1.4 million for Tuvalu (amounts rounded to nearest US$ 100k).

**Project Management and Coordination**

SIFWaP will have a hub-and-spoke project management structure comprising a CPCU based in any country in the region, plus four National Implementing Agencies (or lead implementing agencies) each with a National Delivery Unit (NDU). The CPCU will be operated by a suitably qualified project management company/institution selected by international competitive bidding, and will be financed through GAFSP grant funds. The NDUs will be housed in the lead implementing agency in each country. Island Delivery Units (IDUs) will be housed within the Island Councils and will responsible for all project activities on the respective island.

# 1. Context

## A. National Context and Rationale for IFAD Involvement

### a. National Context

In April 2019, the Global Agriculture and Food Security Programme (GAFSP) launched a special call for proposals focussed on fragile states. In line with commitments under IFAD11 to (i) expand IFAD's engagement in Small Island Developing States (SIDS) and (ii) enhance its role as an assembler of finance and technical assistance, IFAD collaborated with fragile states in the Pacific and its sister Rome-based agency FAO in preparing a multi-country proposal for four Pacific SIDS: the Federated States of Micronesia, the two Republics of Marshall Island and Kiribati, and Tuvalu. The proposal was accepted by GAFSP in December 2019, following which a remote design process was launched by IFAD in coordination with FAO.

Due to limitations on the length of the Project Design Report, sections (a) National Context and (b) Special Aspects Relating to IFAD's Corporate Mainstreaming Priorities, have been shortened in this main document. The full text of these two sections is available in Annex 11: Full Description of National Contexts. Additional information on the national contexts regarding environment, climate change, gender, youth, nutrition and health, disability and social inclusion is provided in the SECAP Review Note in Annex 5.

**Demography**

The four SIFWaP countries are among the smallest, most isolated and fragile of the Small Island Developing States (SIDS). They mainly comprise coral atolls scattered over a vast area of ocean with a total population of 286,400 and an average population density of 167 persons per square kilometre (Table 1).

The high population densities combined with the low productivity of agro-ecological systems, especially on the atolls, contributes to a precarious food and nutrition security situation across the region. The countries are heavily dependent on their marine resources which generate royalties from tuna fishing by mainly foreign flagged vessels but this contributes little to food security or livelihood opportunities for the majority of the population.

Table 1: Population and Population Density

| Country | Land area ($km^2$) | Sea area a/ ($km^2$) | Population | Persons/$km^2$ |
|---|---|---|---|---|
| FSM | 702 | 2,600,000 | 104,600 | 150 |
| Kiribati | 800 | 3,500,000 | 115,300 | 146 |
| RMI | 181 | 460,800 | 55,000 | 293 |
| Tuvalu | 26 | 900,000 | 11,500 | 431 |
| **Total** | **1,709** | **7,460,800** | **286,400** | **167** |

a/ Area of Exclusive Economic Zone
Source: Pacific Community (SPC) National Minimum Development Indicators https://www.spc.int/nmdi/

Living conditions and poverty levels are particularly severe on outer islands away from the capitals where there are few employment or income generating opportunities, poor infrastructure and services and infrequent transport linkages. Outmigration of the most productive people, combined with climate change and vulnerability to natural disasters threatens the existence of these extremely isolated communities.

Populations are static in the Federated States of Micronesia (FSM) and the Republic of the Marshall Islands (RMI) due to foreign employment, education and health care opportunities that their citizens can access under the Compacts of Free Association with the United States of America (USA). Kiribati and Tuvalu are experiencing rapid population growth with limited emigration opportunities, mainly confined to seasonal employment schemes in Australia and New Zealand.

## Key Data

Key data for each country is presented in Table 1 and

Table 2 in terms of population, economic performance and measures of human development.

Table 2: Key Data

| Indicator | Year | FSM | Kiribati | RMI | Tuvalu | Source |
|---|---|---|---|---|---|---|
| GDP (current US$), million | 2018 | 402 | 197 | 221 | 43 | World Bank |
| GDP per capita (current US$) | 2018 | 3,568 | 1,698 | 3,788 | 3,700 | World Bank |
| Human Development Index | 2019 | 0.620 | 0.630 | 0.704 | NA | HDR c/ |
| Life expectancy at birth | 2019 | 68 | 68 | 74 | 67 | HDR |
| Expected years of schooling | 2019 | 11.5 | 11.8 | 12.4 | NA | HDR |
| Prevalence of obesity in the adult population a/ | 2016 | 69% b/ | 46% | 53% | 52% | WHO d/ |

a/ Obesity only: excludes overweight b/ From 2017 National Strategic Action Plan for Prevention and Control of NCDs. c/ Human Development Report d/ World Health Organisation

## Key Geographic Features

The countries of the North Pacific are mostly atoll islands. Kiribati, Tuvalu and RMI are all atolls, while FSM comprises both atolls and volcanic islands. Atoll soils are formed almost entirely from coral and are coarse-textured with no clay and poor water holding-capacity. Moreover, droughts are common in this part of the world[1]. The soil is often salty, highly alkaline and low in nutrients such as potassium, iron and manganese. Inorganic fertilisers and chemical pesticides are prohibited on most of the atolls as they could pollute valuable underground fresh water.

The wet tropical climate of the region is characterised by three extensive bands of wind convergence and associated rainfall. These region experiences seasonal rainfall variations, but little variation in temperature. However, the countries often experience extreme events including tropical cyclones, storm surges, heat waves, drought and heavy rainfall. Tropical cyclones produce damaging winds, heavy rainfall and storm surges which can have devastating impacts.

The four countries all have remote islands that are particularly vulnerable to climatic and other natural disasters which threaten both food and water security. They are all experiencing rising sea levels leading to chronic coastal erosion and social and economic disruptions. Climate models forecast increasing frequency of extreme/destructive climatic events such as droughts and hurricanes. Most islands suffer from unreliable drinking water sources, varying from Funafuti, Tuvalu which relies completely on rain water for drinking and agriculture to Pohnpei, FSM which has underground and surface water sources.

[1] https://theconversation.com/how-food-gardens-based-on-traditional-practice-can-improve-health-in-the-pacific-75858

**Socio-Cultural Context**

The people of FSM, RMI and Tuvalu, and are amongst the most isolated and disadvantaged of the small island developing states (SIDS). The four countries mainly comprise coral atolls scattered over a vast area of ocean with a total population of 286,400 and an average population density of 167 persons per square kilometre of land. Whilst there are many differences between the countries, they also share a number of common challenges including: (i) heavy dependence on food imports; (ii) lack of locally available nutritious foods; (iii) difficult agricultural conditions; (iv) limited access to fresh water; (v) emigration; (vi) limited human and institutional capacity; and (vii) vulnerability to climate change. Other key challenges that will be addressed by the project include: (i) poor nutrition and health; (ii) gender inequality; and (iii) youth inclusion.

**Regional Context**

The proposed GAFSP intervention is considered in the context of the SIDS Accelerated Modalities of Action (SAMOA) Pathway of 2014 and the Global Action Programme on Food Security and Nutrition in SIDS (GAP), as well as the Sustainable Development Goals (SDGs). The GAP focuses on three broad objectives: (i) enabling environments for food security and nutrition; (ii) sustainable, resilient and nutrition sensitive food systems; and (iii) empowered people and communities for improved food security and nutrition. All of these objectives are highly relevant to the context of the four participating countries.

The four applicant countries are members of a number of **regional organisations** including: The Pacific Community (SPC); the Pacific Islands Forum Fisheries Agency; the South Pacific Regional Environmental Programme; the South Pacific Tourism Organisation; and the University of the South Pacific. SPC is the key technical agency for the region and will play an important role as the custodian of the region's plant genetic resources managed by the Centre for Pacific Crops and Trees (CePaCT). Together, these organisations provide a platform for collaborative approaches to food, nutrition and water security, climate change, fisheries management, human resource development and environmental management within the region.

The proposed Supervising Entities, FAO and IFAD, also work within appropriate regional strategies. The **FAO Multi-Country CPF** for the Pacific Islands (2018-2022) recognises the importance of sustainable development of natural resources and the role of agriculture, forestry and fisheries for food security and nutrition, livelihoods and economic development in the Pacific Island countries (PICs).

**IFAD's Pacific Partnership Strategy** reflects IFADs approach to working with SIDS including: (i) promoting sustainable small-scale fisheries and aquaculture; (ii) enhancing opportunities for employment, access to finance and access to markets; and (iii) strengthening resilience to environmental and climate change. IFAD's approach for the PICs is based on developing partnerships to enable poor rural people to improve their food and nutrition security, raise incomes and strengthen their resilience. The Partnership Strategy has two objectives: (i) rural people in remote areas and outer islands produce, consume and market more local foods in environmentally sustainable ways; and (ii) rural people earn more from farm and non-farm activities and employment.

**Overview of the Agricultural Sector**[2] [3]

[2] Throughout this document the agricultural sector is broadly defined and includes crops, livestock, fisheries, aquaculture, forestry and related activities.
[3] Additional information is available in Annex 11: National Contexts

Agriculture and fishing have been the mainstay of sustainable livelihoods in the North Pacific for centuries. However, in recent decades the traditional livelihood systems have broken down with serious consequences for food and nutrition security. All four countries face similar challenges. Traditional livelihood systems based on food crops (taro, sweet potato, cassava, breadfruit, pandanus and bananas), copra as the main cash crop, and inshore artisanal fishing are in decline due to multiple factors including: (i) natural resource (soil, water, forest, marine) degradation due to over-exploitation, and unsustainable management practices, exacerbated by climate change; (ii) rising sea levels and salinization of soil and water resources; (iii) internal migration from outer islands to overcrowded main islands/capitals; (iv) outmigration of productive individuals leading to high levels of dependency on remittances; and (v) the flooding of local markets with cheap imported foods of, often of poor nutritional value; and (vi) shifting consumer demand in favour of imported foods that are quick and easy to prepare.

Whilst this general pattern prevails, there are differences between the four countries and even between islands, which justifies the community-led approach. There are opportunities to improve agricultural productivity using intensive methods based on both traditional and modified agricultural practices including home gardens and simple hydroponic methods to produce a range of nutritious fruit and vegetable crops. Local production of pigs and poultry could also be improved by confining animals and making better use of local feeds.

**Water Security**[4]

Most of the islands in the participating countries face water security challenges, in terms of drinking water and water for irrigation. With water demand being roughly proportional to population, the heavily populated atolls with growing populations, particularly the capital islands, face chronic or recurrent water shortages in volume and quality terms, exacerbated by increasing temperatures, rising sea level and periodic droughts.

A water security assessment in the participating countries categorises each island according to its drought vulnerability and investment needs, with Category 4 requiring major investments and Category 0 being reasonably water secure and not in need of significant water security investment. The results are summarised in Table 3.

Table 3: No and Percent of Households According to Water Security Assessment

[4] An assessment of the water security situation and options for improved management of water resources is provided in Working Paper 2.

| | No of Households by Category | | | | | |
|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | Total |
| FSM | 7,506 | 8,232 | 504 | 482 | 63 | 16,787 |
| Kiribati | | | | 3,257 | 14,515 | 17,772 |
| RMI | | 5,216 | 197 | 2,014 | 321 | 7,748 |
| Tuvalu | | | 1,215 | 105 | 306 | 1,626 |
| Total | 7,506 | 13,448 | 1,916 | 5,858 | 15,205 | 43,933 |

| | Percent of Households by Category | | | | | |
|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | Total |
| FSM | 45 | 49 | 3 | 3 | 0 | 100 |
| Kiribati | | | | 18 | 82 | 100 |
| RMI | | 67 | 3 | 26 | 4 | 100 |
| Tuvalu | | | 75 | 6 | 19 | 100 |
| Total | 17 | 31 | 4 | 13 | 35 | 100 |

Table 3 shows that almost 23,000 households (52% of the total) fall into water security categories 2, 3 or 4 indicating that they are in need of significant investment to improve their water security. According to this assessment FSM households are most water secure and Kiribati households are least water secure. RMI and Tuvalu also have significant concentrations of population with low levels of household water security. Water insecurity has significant implications to not only agriculture production, but also human health and nutrition.

**Agriculture and Food and Nutrition Security Policies and Strategies**

All four countries have National Development Plans that acknowledge the important role played by the agriculture sector in the country's socio-economic development. The national plans of all four countries speak to developing or revitalising the agricultural sector to increase household incomes, reduce reliance on imported food, diversify diets, improve nutrition and health outcomes (including NCDs), and support biodiversity management and ecosystem resilience, particularly in the context of climate change.

Whilst the sector strategies vary in their current status, the consultations undertaken in preparing the Project provided a clear indication of national priorities, which establish a foundation for project design. Without exception, food and nutrition security is seen as an absolute priority, along with adaptation to climate variability and climate change. This reflects concerns about a growing national food import bill, deteriorating health (and associated costs to the economy), and high levels of household expenditure on food purchases that are increasingly on unhealthy foods. Secure access to high quality water is also a consistent concern on most of the atoll islands.

Working Paper 4 presents a detailed review of food and nutrition security issues in the four participating countries. None of the four countries have current nutrition plans or strategies. However, nutrition is a consistent theme of related sector strategies such as health, agriculture and food security. Tuvalu and FSM have National NCD Policies[5] that include components on improving nutrition, primarily through increasing local production and consumption of fruit and vegetables and reducing overweight and obesity; and in Tuvalu through improved nutrition education and skill development.

**Alignment with SDGs**

5 FSM: National Strategic Plan of Action for the Prevention and Control of Non-communicable diseases (2019-2024); Tuvalu: National Noncommunicable Diseases Strategic Plan (2017-2021).

The Kiribati and Tuvalu national plans were framed in alignment with the SDGs and other international and regional commitments such as the SAMOA Pathway, Paris Agreement and the Framework for Resilient Pacific Development. The RMI Strategic Plan was aligned to the Millennium Development Goals (MDGs) and recognised the importance of alignment to the Post-2015 agenda through the SDGs. The FSM Strategic Plan was formulated prior to the SDGs and therefore make reference only to the MDGs. However, work is ongoing to mainstream the SDGs into the FSM development plans. The policy objectives of all four countries respond to the targets of SDG 2, "End hunger, achieve food security and improved nutrition and promote sustainable agriculture" and SDG 1, "Ending poverty in all its forms everywhere".

The Project will contribute mainly to the achievement of SDG 2, *inter alia* by promoting improved agricultural practices as well as resilient and nutritious crop varieties and livestock breeds, addressing nutrition-sensitive value chain linkages, increasing knowledge, awareness and training on nutrition and healthy meal choices and strengthening of Agriculture institutions.

The Project will also contribute to pursuit of SDG 1. The policies of all four countries recognise the potential for agriculture to support poverty reduction by raising household income from agriculture, creating employment on and off the farm and creating new economic activities. It will also contribute to SDG 6 (clean water and sanitation), SDG 12 (responsible consumption and production) and SDG 13 (climate action).

**Key Elements of the Policy Environment**

All four countries recognise the importance of creating an enabling environment for investment in the agriculture sector, including the adequate financing and institutional strengthening of their respective Agriculture Departments/Divisions, to more effectively support farmers and the private sector.

Overall, the national policy environment of each country under which the project will be implemented is very conducive to development interventions or initiatives within the agricultural sector, particularly those aimed at improving food and water security and nutritional outcomes, despite the lack of specific nutrition policies. Notwithstanding the challenges shared by the four countries such as limited institutional capacity, diseconomies of scale, the scattered nature of islands and atolls, an underdeveloped private sector, small market size, and geographic isolation, there is a concerted effort by the respective Governments to create an enabling policy and regulatory environment for investment in key sectors, especially agriculture, that can not only leverage economic growth, but also provide a social and economic boost in the livelihoods of the majority of the population.

All four countries have a range of laws, regulations, policies, plans and institutions covering agriculture, fisheries, climate change, environment, health and nutrition, youth, gender equity, and disability which reflect their development aspirations in relation to food and nutrition security and building resilience. All four countries also possess a range of complementary sector policies in climate change, environmental management, health and nutrition, and trade, which reflect their development aspirations in relation to strengthening household food and nutrition security, social inclusion and building resilience.

**Government Commitment to Agriculture and Food and Nutrition Security**

The four SIFWaP countries are characterised by very small economies, with GDPs in 2018 ranging from US$ 43 million for Tuvalu to US$ 351 million for FSM. Government revenues are also limited in all four countries, with a strong dependence on fishing rights and

external donors. Due to limited Government revenues, expenditures primarily finance recurrent costs for ministries and departments.

Nonetheless, even funding for recurrent costs is limited and Government agencies tend to have large mandates with insufficient staffing and operating budgets. For instance, in FSM, the National Department of Resources and Development oversees not only agriculture and marine resources but also trade and investment, energy and tourism and statistics.

Government expenditures on agriculture and food security are shaped by fiscal constraints across all four countries and spending on agriculture is low. For instance, the budget of the Division of Marine Resources and the Division of Agriculture in FSM amounts to less than US$ 0.5 million. Government spending on agriculture more broadly ranged from about US$ 2.0 million in Tuvalu (3.9% of Government expenditures in 2017) to US$ 11.1 million in Kiribati (7.2% of Government expenditures). In all countries, expenditure on agriculture has increased over the past few years, although not necessarily as a share of the Government budgets.

Government resources are primarily allocated to recurrent expenditures as opposed to investments and development programmes. Salaries account for a large share of expenditures in all four countries, ranging from 48% in Kiribati to 76% in FSM.

**National Agricultural Investment Plans (NAIPs)**

The four countries initiated developing NAIPs through stakeholder consultative workshops that formed part of the SIFWaP proposal preparation process in 2019. The workshops determined the duration of the proposed NAIPs (five years) and the key priority areas for investment.

The development of the NAIPs will be a continuation of government strategic and policy development processes in place or being made operational. The NAIPs constitute a prioritisation process of systems, projects and programmes that are either in process or proposed. The NAIPs will not add an additional layer of implementation requirements, but will be integrated within existing country planning processes. The initial NAIP consultations revealed that most of the priority areas for investment have been discussed and there has been some thinking around the priority areas. SIFWaP provides a mechanism to enable a longer term and more strategic planning approach in situations where the focus has been on the more immediate and urgent elements of fragility.

**b. Special Aspects Relating to IFAD's Corporate Mainstreaming Priorities**

**Food and nutrition security** is central to SIFWaP's objectives, theory of change, and proposed interventions. This reflects the poor and deteriorating status of nutrition and health in the participating countries, where there has been rapid food system transformation, and a nutrition transition characterised by an erosion of traditional lifestyles and food systems and diets, reduced dietary diversity, and increasing dependence on imported foods, often of poor nutritional value. The result is the triple burden of malnutrition, with the co-existence of both under and over-nutrition, with high rates of child stunting, micronutrient deficiencies and soaring prevalence of NCDs including obesity, diabetes, anaemia and cardio-vascular disease. Co-contributing factors include high population densities on the capital islands that make arable land scarce, difficult agricultural conditions (exacerbated by climate change), export of most of the fish catch, difficulties in preserving and transporting fresh food to the heavily populated areas, and ready availability of cheap imported foods high in refined carbohydrates, salt, sugar and fat. Consumer preferences for imported foods such as rice and instant noodles are also increasing, as these are often regarded as quicker and easier to prepare than local staples, and are often reported as being tastier. Food safety and sanitation standards are also low,

accentuated in many cases by water shortages. Households in both rural and urban areas spend a high percentage of their incomes on purchasing food.

Without exception, food and nutrition security is an absolute priority in national development plans, along with adaptation to climate variability and climate change. Food and nutrition security also feature prominently in the agricultural sector strategies, policies and investment plans, food security and NCD policies and action plans. These policy positions support SDG2 (hunger, food security and nutrition) and are also consistent with a number of regional strategies and programmes including FAO's Country Programme Framework for the Pacific and IFAD's Pacific Partnership Strategy. However, this is yet to translate to improving nutrition and health outcomes at household level, especially in the more remote locations and among woman headed households.

The Project will pursue a nutrition-sensitive strategy that seeks to influence both supply and demand side factors affecting dietary habits and nutrition outcomes. The theory of change defines the approach of working on nutrition knowledge, attitudes and awareness and effective demand for healthy food (Component 1), increasing the supply of nutritious foods (Component 2), and the enabling environment for food and nutrition security (Component 3). The targeting approach favours communities and households experiencing high levels of food and nutrition insecurity.

SIFWaP's nutritional aims are expressed at Project Objective level and both of the Objective level performance indicators; and nutrition is part of all three expected Outcomes. It is mandatory that the investments under Component 2, which comprise the largest portion of Project costs, must directly support food, nutrition and/or water security.

**Climate Change:** The Social Environmental and Climate Assessment Procedures (SECAP) Review Note in Annex 5 highlights the vulnerability of the Pacific Islands to climate variability and climate change as a key dimension of their fragility. Observed trends and climate models forecast ongoing increases in temperatures and sea level, as well as increasing frequency of extreme events such as droughts and hurricanes. The SECAP identifies eight impact areas: (i) agricultural productivity decline due to rising temperatures and extreme weather events; (ii) salinisation of agricultural land; (iii) coastal erosion; (iv) salinisation of groundwater; (v) deterioration of coral reef and lagoon ecosystems; (vi) increasing frequency of severe tropical cyclones; (vii) threats to human health due to higher temperatures and extreme rainfall events; and (viii) increased frequency and severity of flooding. All but the last of these, have the greatest impact on the atoll islands that are home to the majority of SIFWaP beneficiaries.

Governments, communities and individuals in the SIFWaP countries have a high degree of awareness about the consequences of climate change. All four countries have developed policies and strategies for climate change adaptation/mitigation and disaster risk management. Their agricultural sector strategies recognise the difficult agricultural conditions in the atoll environment, and give priority to adaptation and mitigation measures as well as related aspects of food and nutrition security. Strengthening resilience to climate change is also a key pillar of IFAD's Pacific Partnership Strategy.

Adaptation to climate change is an integral part of every component and sub-component of the Project. This recognises that, whilst the challenges are formidable and immediate, there is a range of practical measures available to mitigate the impacts in some way, often using measures that make sense with or without climate change – so called "no regrets" initiatives. These will contribute to SIFWaP's objective of improving food, nutrition and water security in the target communities. Measures to be applied will build on both traditional knowledge and new technologies, tailored to local conditions in each country, island and community.

**Gender, Youth and Social Inclusion.** The SECAP Review Note in Annex 5 details the Project's approach to gender, youth and social inclusion (including PwD). None of the four countries reports data on the Gender Inequality Index. However, it is well known that, women in the Pacific generally face multiple barriers to equitable participation in social, economic and political development due to deeply entrenched social norms, values and practices. Women have limited access to economic opportunities and women's participation in formal non-agricultural employment is low. Men outnumber women in paid employment outside the agricultural sector by approximately two to one. When women have cash earnings, they have little say on how to spend the money. In Kiribati, the last household and health survey reported that only 20 per cent of married women with cash earnings decided for themselves how it was spent. Women lack leadership and have limited decision power. In FSM, for instance, women rarely become traditional leaders and tend to defer to men in community affairs. In Kiribati, around one quarter of women reported that they have no say in decisions relating to household purchases. In the Pacific, this lack of leadership and decision making power translates into the lowest representation of women parliamentarians in the world at 3 per cent.. Rural to urban migration as well as overseas-migration of men contributes to high numbers of women and grandparent headed households. Outmigration of youth is also draining communities of talent and youthful enthusiasm. Women of reproductive age, and in particular young women, are most vulnerable to malnutrition expressed with anaemia and poor diet diversity which can have intergenerational nutrition, health and developmental implications.

Women, youth, outer island communities and other marginalised groups were an integral part of the consultation and design process during Project formulation and their vulnerabilities and concerns are factored into the Project design.

The Project's Gender Equity and Social Inclusion (GESI) strategy aims to achieve full involvement of all beneficiary groups: women and men, female and male youth and PWD. The strategy seeks to ensure meaningful participation of women and youth in the community consultation processes under Component 1. This Component also incorporates gender-disaggregated approaches to ensure inclusion of women, targets for the participation of youth and vulnerable groups, and creation of decent work opportunities. The logframe indicators specify minimum levels of youth and women membership of Community Committees to be engaged in the preparation of Community Development Plans.

SIFWaP will build on the Kiribati Outer Island Food and Water Project (KOIFAWP) model, which has engaged communities in outer islands. KOIFAWP is delivering material benefits to outer island communities as well as building social cohesion and successfully engaging women and youth groups. The SIFWaP GESI strategy is based on pro-actively involving traditional leaders as well as women opinion leaders, teachers, representatives of faith-based groups, and other resource persons; on the premise that social inclusion and gender equity will deliver broad-based social and economic benefits.

About half of Project beneficiaries are expected to be women. SIFWaP will target whole households (usually 50% women and girls), and will incorporate gender-based indicators disaggregated by sex and age to encourage the inclusion of women and grandparent headed households and younger people. To fine-tune the project's GESI strategy, during Year 1 each country team will be expected to prepare action plans for gender equity and social inclusive.

Table 4: Mainstreaming Theme Eligibility Criteria

| | ☐ **Gender transformational** | ☒ **Nutrition sensitive** | ☐ **Youth sensitive** | ☐ **Climate focused** |
|---|---|---|---|---|
| **Situation analysis** | ☒ National gender policies, strategies and actors<br>☒ Gender roles and exclusion/discrimination<br>☒ Key livelihood problems and opportunities, by gender<br>☐ Use(pro-WEAI)6 assessment for M&E baseline | ☒ National nutrition policies, strategies and actors<br>☒ Key nutrition problems and underlying causes, by group<br>☒ Nutritionally vulnerable beneficiaries, by group | ☒ National youth policies, strategies and actors<br>☐ Main youth groups<br>☒ Challenges and opportunities by youth group | |
| **Theory of change** | ☒ Gender policy objectives (empowerment, voice, workload)<br>☐ Gender transformative pathways<br>☐ Policy engagement on GEWE7 | ☒ Nutrition pathways<br>☒ Causal linkage between problems, outcomes and impacts | ☐ Pathways to youth socioeconomic empowerment<br>☒ Youth inclusion in project objectives/activities | |
| **Logframe indicators** | ☒ Outreach disaggregated by gender<br>☒ Women are >40% of outreach beneficiaries<br>☐ Pro-WEAI indicator8 | ☒ Outreach disaggregated by gender, youth, indigenous peoples<br>☒ Women reporting improved diets and/or Persons reporting improved nutrition knowledge | ☐ Outreach disaggregated by age | |
| **Human and financial resources** | ☒ Staff with gender TORs<br>☒ Funds for gender activities<br>☐ Funds for Pro-WEIA surveys in M&E budget | ☒ Staff or partner with nutrition TORs<br>☒ Funds for nutrition activities | ☐ Staff with youth-specific TORs<br>☒ Funds for youth activities | *To qualify as climate-focused, a value amount for adaptation and/or mitigation finance must be inserted in Section G.a. on Project Costs. Refer to the Climate Finance Tracking Annex of the IFAD Project Design Guidelines for detailed guidance.* |

6 Project level Women's Empowerment in Agriculture Index

7 Gender Equality and Women's Empowerment

8 To be provided by ECG.

## c. Rationale for IFAD Involvement

**Fragile Country Status:** The four countries are included in the World Bank's 2022 List of Fragile and Conflict-affected Situations[9] under *High Institutional and Social Fragility*. Fragility takes many shapes in the North Pacific. Several aspects of fragility will be addressed by the Project including: (i) heavy dependence on food imports; (ii) lack of availability, access and utilisation of nutritious foods; (iii) difficult agricultural conditions; (iv) un-reliable access to water for consumption and agricultural production; (v) high levels of emigration; (vi) vulnerability to climate change; and (vii) transport/logistic challenges which amplify all of these.

The causal pathways between these sources of fragility are multi-directional. For instance, the difficult agricultural conditions contribute to the dependence on food imports and the limited supply of nutritious food, and the health consequences of poor diets in turn deteriorate the productivity of labour for agriculture. Climate change is a more recent source of fragility, but it exacerbates the existing sources of vulnerability, and in particular agricultural conditions and access to water.

**Dependence on Food Imports:** Over recent decades, cheap imports such as rice, instant noodles, bread and sugar became readily available and slowly replaced traditional crops, which are more difficult to grow and cook. As a result, together with increasing taste preferences for processed foods which are higher in salt, sugar and fat, traditional diets have changed and populations increasingly choose cheap imported foods, often of poor nutritional value. For instance, the average Food Import Capacity Index, the ratio of food imports to total mercantile exports, for Kiribati from 2008 to 2010 was 750%10 when an index of 50% is considered high. There is little fresh fruit and vegetables imported given the logistical challenges associated with fresh produce.

**Lack of Nutritious Food and Health Consequences:** This change in traditional diets adversely affected diet diversity – with fruit and vegetable consumption particularly lacking. Poor diet quality has been a major driver of severe deterioration of nutrition and health with, the prevalence of malnutrition escalating, presenting the triple burden of malnutrition: high levels of both under and over nutrition: mainly stunting in children, micronutrient deficiencies and increasingly overweight/obesity across the whole population. The Pacific Islands include some of the highest rates of over-nutrition in the world, with the majority of adults classified as overweight or obese, up to 84% of women in Tuvalu. Poor diet and over-nutrition are primary risk factors for NCDs, with particularly high rates of hypertension, diabetes and cardio-vascular disease. Over 75% of adult deaths are attributable to NCDs and over 50% of the population is obese in the four applicant countries. Given diet quality is an important preventable risk factor for NCDs, working on improving nutrition is a clear win-win. Although most people are overweight, micronutrient deficiency remains an issue. For instance, the prevalence of anaemia in women of reproductive age increased between 2012 and 2016 for Kiribati, FSM and the RMI. It reached 23.3% in FSM, 26.1% in Kiribati and 26.6% in RMI11.

**Difficult Agricultural Conditions:** Agricultural conditions are difficult on atolls, as a result of poor soil, erratic rainfall and, on some atolls, no access to non-saline ground water. Traditional farming systems were adapted to these conditions, consisting of mixed agroforestry gardens including tree crops (coconuts, breadfruit, papaya, mangoes and bananas) and a range of root crops, fruits, vegetables and small livestock. However,

[9] https://www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations

[10] See SPC and Australian Aid (2016), the Vulnerability of Pacific Island Agriculture and Forestry to Climate Change, SPC

[11] http://apps.who.int/gho/data/node.main.ANEMIA3?lang=en

demographic, climate and socio-cultural changes have seen these systems degrade over time, with declining agro-biodiversity and increasing dependence on imported food.

**Access to Water:** Water security is a major livelihood issue on atolls and other islands. It concerns the availability and quality of water for domestic consumption purposes as well as for food gardens. The problem is most acute on the densely populated atoll islands such as Tarawa (Kiribati), Majuro (RMI) and Funafuti (Tuvalu). These communities traditionally obtained their water from shallow wells, but growing population, rising sea levels and recurrent drought have placed the groundwater resource under severe pressure, in some cases (e.g. Funafuti) to the point where it cannot be used at all.

**Vulnerability to Climate Change:** The difficult agricultural conditions, unstable access to water and emigration are all aspects of fragility that are exacerbated by climate change and natural disasters. This affects both volcanic islands and atolls, but the low-lying atolls are severely affected by rising sea level with saline water intrusion affecting the quality of groundwater water and reducing agricultural productivity. Higher temperatures and more erratic rainfall accentuate the pressure on the fragile agro-ecosystems of the atolls, resulting in declining crop production, increasing dependence on imported food staples, and reduced dietary diversity.

According to the theory of change elaborated in Section 2.F and Annex 2, the Small Islands Food and Water Project (SIFWaP) seeks to strengthen resilience and reduce the fragility aspects mentioned above and in particular the poor food, nutrition and water security. Agricultural systems are also addressed to ensure the production and availability of local nutritious foods. Climate change adaptation measures will be mainstreamed in agricultural production activities to increase climate resilience.

To address these aspects of fragility, SIFWaP will focus on three challenges that limit access to nutritious food. The first is the lack of knowledge and positive attitudes that are limiting the production and consumption of nutritious food and knowledge on how to prepare this food. This is accentuated by the loss of traditional food production skills and the need for behavioural change in the food system. The second challenge is the production of nutritious food locally in the context of difficult agricultural conditions, including poor soils, unreliable access to water, lack of access to quality planting materials, climate-change and other factors. The third challenge is access to safe water for drinking and agriculture.

With its emphasis on supporting more sustainable water management, on building the capabilities of communities and local organisations to better manage natural resources and on promotion of private entrepreneurship under a context of fragility and scarcity, SIFWaP interventions directly contribute to the capacity of rural women and men to adapt to the impacts of climate change.

**Rationale for Public Funding:** Publicly-funded investments to improve access to nutritious foods for healthy diets and reduce dependence on less nutritious imported food are likely to be more cost-effective than dealing with the consequences of unhealthy diets in the long run. In particular, the health benefits arising from improved water, food and nutrition security are expected to generate substantial savings to national health systems as well as financial and economic benefits for individuals, communities and the region as a whole by improving the health and productivity of the workforce.

The social and environmental cost of internal migration to overcrowded main/capital islands are already evident in the form of acute water shortages, rising food import bills and social problems relating to lack of economic opportunities. The private sector is generally weak and does not have the incentives or the capacity to mobilise the investments needed to remedy this situation and financial services are also very poorly developed particularly on outer islands. The rationale for public investment also recognises

that it is expensive for the private sector to operate in remote locations, necessitating public financing of services that would be offered by the private sector in less remote locations.

## B. Lessons Learned

Past sectoral programmes on agriculture have mostly been supported through donor-funding. Indeed, government budgets for agriculture are very much constrained, as will be further highlighted in the expenditure analysis, so that they mostly fund salaries and other recurrent expenditures.

An analysis conducted by the Australian Think Tank Lowy Institute on Official Development Assistance (ODA) flows to the Pacific shows that agriculture, forestry and fisheries generally receive a small share of the funding. However, these numbers need to be interpreted with caution, as the data does not appear to be complete, but it gives an indication of the share of ODA going to agriculture, forestry and fishing; it was respectively 3%, 8%, 8% and 13% of total ODA for FSM, Kiribati, RMI and Tuvalu in 2016.

In the agricultural sector, donor funding has been primarily allocated to offshore commercial fisheries, as opposed to agricultural production or sustainable management of inshore fisheries. For instance, in Kiribati, the Development Fund12 budget for 2016 amounted to AUD 3.7 million (US$ 2.6 million) for Ministry of Environment, Lands and Agriculture Development (MELAD), compared to AUD 6.2 million (US$ 4.3 million) for the Ministry of Fisheries. In the FSM, data on donor projects from 2014 to 2017 shows a similar pattern in favour of offshore commercial fisheries: donor funding for agriculture amounted to US$ 2.2 million, while funding for fisheries and climate change respectively reached US$ 6.5 million and US$ 16.1 million.

**Implementation capacity** is limited in all four countries. This is reflected in the capacity for community-based planning as well as in Government institutions at national and sub-national levels. Farmer organisations are also weakly developed as detailed in Working Paper 1, prepared by the Pacific Islands Farmer Organisations Network (PIFON). However, while Kiribati started with limited implementation experience, it has been quite successful in establishing a strong project management structure over the past five years. The implementation capacity challenges in FSM, RMI and Tuvalu are recognised in the project design. They will be addressed through a dedicated management team, capacity building and implementation support from a Central Project Coordination Unit (CPCU) and the Supervising Entities (FAO and IFAD), targeted technical and managerial assistance, support from other implementing partners, and mentoring from the KOIFAWP team. Project start-up activities will include a capacity needs assessment in each country informed by a visit to Kiribati by the other three country teams to learn from the KOIFAWP experience (provided COVID-related travel restrictions permit).

Capacity-building and implementation support will come from FAO and IFAD, the supervising entities. IFAD supervision and implementation support will come through its Pacific Regional Coordination Office in Fiji in line with IFAD's policy of building partnerships among its Pacific Island member countries, its move to extend support into the Northern Pacific under the GAFSP initiative, and its approach to enhancing food security and promoting sustainable smallholder agriculture development in SIDS. FAO's technical support will be focused on Component 3 through the development of the NAIPs.

**Water Management Investments:** The review of water security in the region has identified a number of valuable lessons including: (i) preference for relatively large water supply schemes in order to the reduce logistic and management challenges associated

[5] This is the name of the Fund from which Government and some donor programmes and investments are financed.

with large numbers of small/micro schemes; (ii) the importance of strong community and local government (Island Council) engagement in planning, constructing and managing water supply investments; (iii) capacity limitations among NGOs engaged in water management initiatives; and (iv) the need for developing a clear understanding about the ownership of water supply systems and responsibility for their management. Due to the high cost of transport and construction on outer islands, water supply can be very expensive and logistically challenging. Whilst there is a preference for rainwater catchment schemes from a water quality perspective, these are vulnerable to drought, and better management and utilisation of groundwater resources is often the most cost-effective option. It is important to undertake a systematic and participatory evaluation of water management options in each island/community in order to identify the best option(s) among four broad categories: rainwater harvesting, groundwater management, desalination and solar distillation.

## 2. Project Description

### C. Overall Approach

**Multi-Country Approach:** FSM, Kiribati, RMI and Tuvalu have decided to adopt a multi-country approach, because they are amongst the smallest of the SIDS and would benefit from economies of scale in project design, implementation and supervision. The approach also recognises that the four countries share many of the same fragilities and will benefit from a collaborative approach involving south-south cooperation, particularly the opportunity to learn from other multi-country projects. It is emphasised however that SIFWaP is a multi-country project, not a regional programme. The project design defines a common implementation framework, with decentralised decision-making and administrative modalities, with flexibility for countries and communities to determine their own priorities and investments. This approach is different from regional programmes (common in the Pacific) with centralised decision-making and administrative modalities.

**Strengths-Based Approach:** The challenges faced by the small island communities in the North Pacific are abundantly clear. However, SIFWaP will build on the inherent strengths of the traditional cultures and livelihood systems that have sustained these communities in a harsh environment for centuries. These strengths include traditional community groups which have proven to be effective and sustainable development facilitators. SIFWaP will build on traditional knowledge including that held by women, which can be different than knowledge held by men, organisations and resilience practices, indigenous food systems, and community structures, complemented by encouraging results from recent efforts to regenerate traditional agriculture and food systems and to introduce new and or scale-up existing technologies that are gender sensitive, modern and interesting to youth and adapted to climate variability and climate change. These include the demonstration of good agricultural practices under the Australian Centre for International Agriculture Research (ACIAR) Soil Health Project in Kiribati and Tuvalu, successes in improving atoll food and water security under KOIFAWP, intensive horticulture pilot farms operated by the Taiwan Technical Missions in Kiribati, RMI and Tuvalu, and demonstrations of simple hydroponic systems in several countries. All of these show that the erosion of traditional livelihood and food systems can be reversed under an enabling policy framework and with well-targeted support at community and household level.

**The Community Engagement Model:** The model will build on the KOIFAWP project in Kiribati, which has been successful in engaging communities in the outer islands of that country. KOIFAWP is delivering material benefits to remote outer island communities as well as building social cohesion and mobilising the commitment of women, youth groups and other vulnerable groups. Worldwide, projects that have managed to effectively engage communities have enjoyed greater ownership and sustainability of activities and investments – in particular infrastructure maintenance, which is something the four countries have been struggling with. The key success factor here is (the right amount of)

community consultation to develop the capacity of small island communities to diagnose their key challenges and the causes of their fragility, formulate development actions to address these, determine poverty targeting criteria and agree on household selection, and implement development plans. With the support of Island Councils[13], beneficiaries will be in the driver's seat of project implementation. Empowered community institutions (for public/collective goods) and common interest groups (for private goods) will be able to mobilise and attract further technical and financial resources to cover additional items in their development plans.

**Partnerships:** The lead implementing agencies in each of the countries have limited outreach in isolated communities, especially on the outer islands. Project implementation will therefore depend on partnerships with other agencies including NGOs, CBOs, Farmer Organisations, producer associations and the private sector. Each lead implementing agency will engage one or more NGOs to undertake the community consultation work and provide ongoing support to project implementation in the target communities. In all four countries the Governments have confirmed that they are willing to engage NGOs in this way. To this end, a detailed mapping of potential CBOs, FPOs and other civil society organisations at national island and village level, that SIFWaP can partner with at implementation has been conducted[14]. In addition, SIFWaP will build on potential South-South Triangular Cooperation (SSTC) opportunities, whereas the knowledge and experience in neighbouring countries and other SIDS will be key in supporting the scaling-up of innovative solutions which have been successfully implemented elsewhere.

**Non-Prescriptive Approach:** The project will enable communities and households to plan and undertake various investments in pursuit of improved food, nutrition and water security for all peoples with a focus on the extreme poor and most vulnerable households. Activities may be of a public good nature, benefiting the entire community, or private good type activities undertaken by individuals or small groups. In addition, cultural and community considerations will be further considered to allow for a more effective project implementation, for instance for community awareness raising, activities and trainings on GESI, nutrition, good agronomic practices, climate smart agriculture, resource management, business skills, amongst others.

The project will conduct a number of activities supporting food, nutrition and water security. Box 1 lists potential activities to be financed under Component 2 and in some cases will also be supported under Component 1 (e.g. training on the production of vegetables and local crops). For the grant mechanisms in Component 2, the investments will only include activities that directly support food, nutrition and water security as prioritized by the various groups within the community. The grant windows will review project proposals to ensure their consistency with project objectives and exclude projects when necessary, on the basis of equity, inclusion, employment and environmental considerations.

In line with the 'non-prescriptive' spirit of the project, the PDR does not identify priority crops. The identification of crops will be driven by capabilities of producers to improve household's consumption of nutritious foods and fulfil local market demand. However the set of market studies shows that products preferred by local markets include food crops (taro, sweet potato, cassava, breadfruit, and pandanus) and copra as the main cash crop. Furthermore, an ACIAR-IFAD Research on nutritious leafy vegetables, undertaken in Kiribati and Tuvalu among other countries, identified a number of highly nutritious leafy

[13] Island Councils are elected local government agencies which exist on most populated islands. They perform a range of local government functions through locally employed staff. In FSM they are the third tier of Government sitting below the Federal and State Governments. In the other two countries the Island Councils are the second tier of Government sitting below the National Government.

[14] See Working Paper 1: Study on Farmer and Community Based Organisations

vegetable crops suitable for SIDS. These include, amaranth, chaya and moringa amongst others. Efforts will be made to promote these crops.

**Box 1: Indicative List of Activities to be Supported**

| Community/Public Good Activities | Private Good Activities |
|---|---|
| • Fresh produce markets, fish markets, handicraft markets<br>• Transport infrastructure, feeder roads<br>• Water supply systems: wells, rainwater catchment, solar distillation, desalination<br>• Community level schemes for composting, cold storage, nurseries etc.<br>• School/community gardens<br>• Community fisheries management schemes<br>• Agroforestry, pest and invasive species management<br>• Solar street lights, solar mini/micro-grids, solar Wi-Fi access points | • Composting equipment (including shredders)<br>• Nurseries/seed production inputs and equipment<br>• Small livestock and equipment<br>• Fishing, aquaculture, seaweed and equipment<br>• Home gardens, hydroponics<br>• Root crops, fruit and vegetables<br>• Storage facilities: cold-stores, freezers<br>• Tree crop replanting: coconuts, breadfruit, bananas<br>• Agro-processing, food preservation, virgin coconut oil, breadfruit flour, banana chips, coconut sap sugar, pandanus juice etc.<br>• Solar-powered equipment such as poultry incubators, driers and pumps<br>• Household scale biogas digesters<br>• Non-farm income generating enterprises, e.g. furniture making, brick manufacture |

**Approach to Financing:** In Component 2, SIFWaP will provide financial support to communities, groups and individuals in particular women and youth men and women to implement their priority activities, building on the indicative list in Box 1. Activities not listed in Box 1 will be eligible for support provided they are consistent with Project objectives and targeting criteria, and are not mentioned in the exclusion list in Annex 5. The preferred financing instrument is a matching grant mechanism, as generally financial services are not accessible by groups or individuals in the target communities. For both public and private good interventions, the beneficiaries will be expected to make contributions to demonstrate their commitment, comprising either cash or in-kind. Each intervention will be subject to an agreement defining the obligations of the various parties.

## D. Project Objectives, Geographic Area of Intervention and Target Groups

### a. Project Objectives

The **goal** of SIFWaP is for people living in the beneficiary communities in FSM, Kiribati, RMI and Tuvalu to have access to sustainable and healthy diets. SIFWaP's **development objective** is to strengthen household resilience to shocks by improving food, nutrition and water security and livelihood opportunities in the small island communities of these countries. There are three **intervention pathways** leading to the development objective:

- Sensitising and enabling communities to diagnose, prioritise and implement activities to address food, nutrition and water security (refers to Component 1, Outcome 1).
- Investing in projects to strengthen resilience by addressing food, nutrition and water security at community, group or household level (refers to Component 2, Outcome 2).

- Developing an enabling policy framework for addressing food, nutrition and water security (refers to Component 3, Outcome 3).

Component 1 will be the entry point for engagement with small-island communities and beneficiaries, focusing on community planning and awareness raising. By focusing on engaging communities, this component will ensure the relevance, ownership and sustainability of these investments. Component 2 will focus on the hard investments for food, nutrition and water security and comprise more than half of the project budget. Component 3 will improve the enabling policy environment, primarily at the national level[15], to facilitate access to resources and programmes supporting these results over the long term. All these activities will further contribute to improving livelihoods.

**Expected Results:** These pathways are expected to deliver intermediate results including (but not limited to): increasing beneficiaries' knowledge and awareness of the importance of consuming nutritious foods (Component 1); promoting linkages between production and consumers of food products (Components 1); supporting access to equipment and inputs for food production (Component 2); training for composting and other climate-smart and nutrition-sensitive agriculture techniques (Component 2); and installing water supply infrastructure (Component 2). These results are expected to be generated under the overall framework of the National Agriculture Investment Plans (NAIP) and contribute to an improved policy environment (Component 3).

Through these activities, SIFWaP will also contribute to improving resilience to climate change by reducing the unreliability of water supplies and proposing climate-smart agricultural practices.

The Theory of Change presented in Section 2.F and Annex 2 describes SIFWaP's structure and its intervention logic, including key outputs, outcomes and impacts. Table 5 outlines the three outcomes linked to the aforementioned objectives as well as the respective indicators that will be monitored to measure the achievement of these outcomes.

The logframe/results framework in Annex 1 defines the expected results and indicators that will be used to verify them. At outcome level, three main results are expected:

Table 5: Outcomes and Indicators

| Outcome | Indicators |
|---|---|
| • **Outcome 1:** Communities are engaged in activities to promote resilience through enhanced food, nutrition and water security. | • Percentage of women reporting minimum dietary diversity |
| • **Outcome 2:** Communities, groups and individuals invest in climate-smart local production of nutritious foods and improved water supply. | • (Number) Percentage of persons/households reporting an increase in production |
| • **Outcome 3:** Well-defined investment plans for food, nutrition and water security are in place in each country. | • Number of existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment |

### b. Geographic Area of Intervention

15 It can include State levels for the FSM

The countries can choose the islands on which they wish to focus project interventions. It is recommended to limit the number of islands chosen per country to avoid cost-overruns, which would prevent the project from reaching the target number of beneficiary households (8,000 households). The criteria for selecting islands are shown below under the targeting approach.

Table 6 shows the targeted number of beneficiary households per country, and an indication of the number of islands to be supported to meet the target. As the table shows, it is important to choose islands with a sufficient number of households, or to balance less populated islands with more populated ones.

Table 6: Targeted Households and Islands per Country

| | **Target households** | **Suggested No of islands** | **Corresponding average No of households per island** |
|---|---|---|---|
| FSM | 2,794 | 5 | 559 |
| Kiribati | 2,794 | 5 | 559 |
| RMI | 1,651 | 3 | 550 |
| Tuvalu | 762 | 2 | 381 |
| **Total** | **8,000** | **15** | **533** |

### c. Target Groups

#### Beneficiaries

In line with the country socio-cultural context, the Project will adopt an inclusive approach to targeting whereby the rural communities and households as a whole will be targeted (as shown below and as long as they are interested and involved in activities similar as those promoted by the project), while ensuring that some groups (namely the extreme poor and most vulnerable, the young people, women and PwDs) receive specific attention.
. These include rural communities on outer islands as well semi-rural communities on the main/capital islands, who also rely heavily on subsistence agriculture and face many of the same challenges as fully rural farming households. The latter are included because in some cases the main/capital islands are home to the majority of the population, and experience the same water and food insecurity problems as the outer islands.

SIFWaP will reach around 8,000 beneficiary households through 200 communities, corresponding to about 50,000 direct household member beneficiaries, approximately 17% of the population of these countries. About half of the beneficiaries are expected to be female.

#### Targeting Approach

SIFWaP's targeting approach is comprehensive. In addition to geographic targeting, the project will adopt a mix of targeting measures and approaches. Targeting within the countries will entail targeting beneficiary islands in the first stage and the beneficiary communities within these islands in the second stage, but only for larger islands. For small islands (circa 300 households per island or less), all or almost all communities within the island should be targeted. For larger islands (e.g. Funafuti in Tuvalu), community targeting within the island will ensure an adequate target group. The criteria for island and community targeting are presented below. At the community level, while all households in the community will be project beneficiaries, consultation processes will ensure that extreme poor, poor and vulnerable households and individuals in particular benefit from project activities.

**Island targeting.** Each country will be responsible for choosing the islands for the project interventions. The beneficiary islands should fulfil the following criteria:

- The island must be home to at least 200 eligible households.
- The island must have regular shipping and/or air services.
- The Island Council must have expressed interest in participating in and supporting the Project.
- Adequate connectivity to communicate on a regular basis with the National Delivery Unit and to transfer information and data for M&E.
- The presence of target communities meeting the criteria described in the targeting approach and the SECAP, which include poverty criteria.
- Vulnerability to food and water insecurity with at least half of the households in need of investment to improve their water security according to the water security assessment in Working Paper 2 and the summary presented in Table 4.
- Not being otherwise a beneficiary of a significant donor-funded programme (e.g. KOIFAWP for Kiribati, the Integrated Agro-ecosystem Approach for enhancing Livelihoods and Climate Resilience in Tuvalu), except for main islands.

**Community targeting.** For larger islands, individual communities within the island might be targeted. In consultation with the Central Programme Coordination Unit (CPCU), the National Delivery Units (NDUs) will proceed to a first selection of communities according to the following criteria derived from secondary data:

- Relative remoteness, accessibility, closeness to similar communities that could form a cluster, and engagement in other programmes of a similar nature.
- Estimated number/percentage of low-income households and households experiencing water, food and nutrition insecurity.

The NDUs will then refine this selection according to the following criteria derived from primary data from local consultations to be led by the Island Facilitators:

- Willingness and readiness of community leaders and members to participate (to be supplemented by an "enthusiasm assessment" by Island Facilitators).
- Island Facilitators' opportunity assessment (for reaching out to dynamic youths, for achieving targets for the engagement of vulnerable groups, etc.).
- Confirmed number/percentage of low-income households and households experiencing water, food and nutrition insecurity.

**Intra-community targeting.** In the relatively remote rural areas of the outer islands, Pacific island culture remains firmly anchored in values by which focusing only on certain sub-groups within a community is considered inappropriate. Community Field Officers (CFOs) will assess the possibilities (i) for participatory identification of most the vulnerable sub-groups within a community, and (ii) for targeting these sub-groups, through improved access to services and resources and assistance with appropriate income-earning activities. When targeted, such sub-groups may include poor or vulnerable households, female-headed households, youth, households including persons living with a disability, etc. To avoid local élite capture, the project will train CFOs and involve and triangulate information with a broad cross-section of stakeholders, comprising traditional authorities and opinion leaders (particularly women[16]), resident teachers, representatives of faith-based groups, and other resource persons.

The following additional features will ensure a certain degree, and the accuracy of, intra-community targeting:

16 These will be women with a reputation and social status allowing them to speak out in public.

- Selection of trusted CFOs vetted by communities who will be able to use their social capital to target more vulnerable households and individuals.
- A community consensus, to be reached as part of the planning and prioritisation process, on whether and how to target poor or vulnerable households.
- The rollout of household methodologies17 (HHMs), which - although deployed at intra-household level - will shed light on the situation of local vulnerable and marginalised sub-groups.
- Particular attention to households with fewer assets and lesser access to natural resources - including land for young men and women- and other resources.

**Other targeting approaches** include: *Direct targeting* of services and resources to specific individuals or households; *self-targeting* with project activities and services which respond to the priority needs, resource endowments and livelihood strategies of the target groups (eligibility of some type of private projects); *Empowerment* and encouragement of people who traditionally have less voice and power with community planning in plenary or in separate, smaller and homogeneous groups, training and sensitization campaigns on technical content (nutrition, business skills…) as well as GESI; strengthening attitudes and commitment to poverty targeting, gender equality and women's empowerment and social inclusion with expertise to accompany the project, sensitize implementing partners, communities, targeted households and individuals; *procedural measures* – to remain intentional about poverty targeting and social inclusion with an eye toward the specificity of each community to ensure wide participation including faith based organizations, youth groups, women groups, elder groups, etc.. ; *operational measures* such as management arrangements, staffing, selection of implementation partners and service providers to mainstream poverty targeting, gender and social inclusion in all project activities including in project management where target will be set for a diverse, gender balanced and inclusive recruitment of management and field staff; and provisions for monitoring the targeting performance with the logframe, assessments at baseline, mid-line and end-line and punctual studies.

SIFWaP's targeting approach will rely on clear accountability mechanisms and measures for maximum transparency. Continuing to learn from KOIFAWP, TRIP-II (Tonga Rural Innovation Project Phase II), and other relevant community-driven development (CDD) projects, IFAD and FAO will support the CPCU in ensuring the four countries adopt a judicious combination of the above elements according to locality-specific conditions. Their effectiveness will be regularly monitored and assessed during supervision missions and through ad hoc activity audits and thematic studies where and when deemed necessary.

**Social Inclusion Strategy**

The Project's Gender Equity and Social Inclusion (GESI) strategy aims to achieve full involvement and meaningful participation of all beneficiary groups: women and men, female and male youth and PwDs in the project components.

The features of component 1 that will contribute to targeting the intended beneficiaries of the projects are: (i) inclusion of GESI expertise with specific ToRs to accompany the project staff accountable for the component; (ii) provision of training to help all project staff identify gender and youth issues that will be important to address in relation to their terms of reference; (iii) inclusion of provisions to favour contributions from women and young people to diagnose, prioritize and voice their views on activities to implement; (iv) as culturally appropriate favour the inclusion of provisions to complement plenary activities with separate consultation activities specifically for young people and for women to contribute to the diagnose and priority processes; (v) prioritisation of candidates under 30 who apply for the

17 See separate section below.

position of Island Facilitator and Community Facilitator; (vi) (v) setting a target of equal numbers of young men and young women to be recruited as Community Field Officers.

The features of component 2 which will contribute to targeting the intended beneficiaries of the projects are: (i) applying affirmative actions for projects lead by women or where women are the decision makers; (ii) applying affirmative actions for projects lead by youth (50M/50F) or where youth are the decision makers ; (iii) applying affirmative actions for projects with employment opportunities for youth; (iv) preparation of nutrition education materials and activities specifically targeted to young people in schools; (v) delivery of classes and materials for women in cooking, food preparation and food preservation at school kitchens and in households in order to reach young people and women.

The features of component 3 which will contribute to targeting the intended beneficiaries of the projects are: (i) conducting a comprehensive engagement with the project target groups to understand their needs and priorities as well as for feedback; (ii) establishing an inter-agency task force of which IFAD will be a member to represent the interest of its target group; (iii) conducting a peer review process with representation of IFAD's target group; (iv) sensitization training of GESI; (v) reviewing and approving the ToRs for the TA with an eye towards the equity and inclusion dimensions.

SIFWaP's social inclusion strategy will form part of the project's GESI strategy. It will aim at achieving the full involvement of all population groups, women and men, and female and male youths. The strategy will be process-oriented and based on pro-actively involving traditional leaders as well as women opinion leaders, teachers, representatives of faith-based groups, and other resource persons. The aim in this context will be "to build a consensus and demonstrate that social inclusion and gender empowerment will bring social and economic benefits" (IFAD 2017[18]) to entire families, and to communities. This awareness will serve to promote the social inclusion of poor and vulnerable households and individuals, including female and grandparent-headed households and youths.

To fine-tune the project's GESI strategy, a detailed analysis will be undertaken during project preparation, with the use of the PPG funds. It will include four detailed action plans for gender inclusive development with the envisaged GESI outcomes and separate budget allocations to be drawn down from the lump sum budget earmarked for this purpose. CFOs will be accountable for the results of implementing SIFWaP's social inclusion strategy in target communities and will report on GESI outputs and targets set by the project. In keeping with CDD principles, CFOs will work with communities to identify agreed criteria and definitions of poverty and vulnerability[19]. In terms of CDC membership, 25 percent of positions will be reserved for representatives from households classified as such.

Making use of GESI terminology and tools will help to broaden the consultations and discussions to be inclusive of all groups. Experience in RMI has proven that this encourages communities to be more open-minded and thoughtful about people's vulnerabilities (GCF, 2019[20]) which will contribute to behavioural changes needed for greater social inclusion.

**Nutrition Sensitive Strategy**

SIFWaP's nutrition sensitive strategy will seek to influence both supply and demand side factors affecting dietary habits and nutrition/health outcomes in target communities. Component 1 will provide capacity building to increase production and improved

18 IFAD, 2017. "Papua New Guinea - Markets for Village Farmers/Maket Bilong Vilis Fama, Final project design report", 27 July, Project No. 2000000899-PG, Asia and the Pacific Division, Programme Management Department, Rome, Italy.
19 CFOs will be trained on CDD (including PRA), governance, GESI and elements of HHMs.
20 GCF, 2019. "FP112: Addressing climate vulnerability in the water sector (ACWA) in the Marshall Islands", UNDP, Report B.23/10, 5 September.

availability of nutritious foods for household consumption, through the promotion of fruit and vegetable production in home and school gardens, selected root crops, small livestock, and improved post-harvest technologies including cold-stores/freezers and food preservation. The latter are of particular importance to improve access to fresh food products, due to the high prices of these products and the cost of travelling to market centres with facilities to handle perishable products.

The project will also influence food consumption patterns through education on the attributes of various foods; adequate family food baskets; links between nutrition, lifestyles and NCDs; consequences of excessive consumption of unhealthy and ultra-processed foods; savings from consuming home-grown food, etc.). The aim is to create positive about healthy food, and to encourage good food practices by providing recipes and cooking lessons. Households will also be encouraged to utilise income from other project activities on purchasing nutritious foods and invest in seeds and other agricultural inputs. Accessing traditional knowledge and transmitting it to younger generations will be part of the strategy.

Starting in Year 2, the nutrition sensitive strategy will be gradually tailored to household typologies through in-depth follow-up according to protocols to be elaborated by CFOs in collaboration with technical agency staff including a nutrition-sensitive agriculture technical advisor. Schools will be entry points with curricula to be adapted, and nutrition/health training to be given to teachers, supplemented by food gardens to be established for demonstration purposes and to provide nutritious ingredients for school meals. The most important pillar of the strategy will be constituted by HHM[21], which will, amongst other things, serve to identify tailor-made pathways and distinct consensual objectives to improve diet quality. SIFWaP will build on potential South-South Triangular Cooperation (SSTC) opportunities, whereas the knowledge and experience in neighbouring countries and other SIDS will be key in supporting the scaling-up of innovative solutions which have been successfully implemented elsewhere. This will also help to promote innovations in climate-smart agriculture and on the last mile behavioural change with regards to nutrition.

## E. Components/Outcomes and Activities

**Component 1: Community Engagement. Outcome 1:** Communities are engaged in activities to promote food, nutrition and water security.

Component 1 will be the entry point for Component 2 activities, and will focus on equitable and inclusive engagement with beneficiary communities and households. It will initiate community-based awareness raising and participatory planning to support nutritious food production and consumption and water supply management as well as gender and youth considerations and skills development for social inclusion and empowerment of vulnerable groups. By engaging communities, this component will ensure the relevance, ownership

21 The arguably most powerful part of HHMs is the household situational analysis of gender roles and relations, nutrition and livelihood vulnerabilities, which often marks the starting point of a journey of self-discovery and emancipation. Target households, with the regular support of the CFOs, will carry out this analysis themselves. The second most important feature is the setting of long-term household objectives, understanding the family budget and looking at gendered roles and responsibilities, creating a shared vision and an understanding of how to reach it, achieving the family dream by working together as a family unit and by knowing where to source non-technical and technical assistance. Because the intention under SIFWaP is not to implement the whole HHM package, but to use the approach as an additional measure for social inclusion, only a few selected items will be picked from the menu of these methodologies. Given socio-cultural similarities, these will be adapted in particular from the Family Team approach that has been successfully piloted in ongoing IFAD projects in PNG and in the highlands of Indonesian Papua (resources and manuals can be found here:
https://aciar.gov.au/search?search_api_fulltext="family team" &page=0).

and sustainability of the investments undertaken. In addition, indigenous knowledge on local foods will be revived, and households better equipped to prepare, preserve and store healthy and nutritious foods. SIFWaP will benefit from the experiences of KOIFAWP and other similar projects in the region, and where feasible will adapt existing training materials.

**Sub-component 1.1: Community Consultation and Mobilisation.** Output 1.1: Community Committees are operational and communities prepared Community Development Plans.

There needs to be significant up-front work and lead-in time to undertake effective community engagement. The first step will be to select and engage one or more suitably qualified NGO(s) as service providers to undertake the community engagement process in target communities. The NGO(s) will be required to closely coordinate their interventions with the Island Councils and recruit a field team of Island Facilitators (one per island) and Community Field Officers (CFOs). They will also be required to prepare training materials for Island Facilitators, CFOs, and community development committees (CDCs). As much as possible, these will be derived from existing tested materials.

The preparatory activities will furthermore include a familiarisation visit to Kiribati by management team members from FSM, RMI and Tuvalu, to learn from KOIFAWP experience. The second step will be to establish new or revive/repurpose existing CDCs (for public/collective goods) and to map existing or encourage the formation of new CIGs, including producer organisations (for private goods). In all cases there will be a preference to work with existing community organisations/institutions rather than the creation of new ones. The third step will be to train CDCs in management, governance, and participatory planning, and to accompany them for at least three months before getting them start on community planning.

With facilitation by the CFOs and support staff from the partner NGO(s), under the supervision of the Island Facilitators and in collaboration with government agency staff, community consultations will be undertaken to analyse problems and opportunities related to food, nutrition and water security and related livelihood options. This will enable the CDCs to formulate Community Development Plans (CDPs) for food, nutrition and water security to be financed under Component 2. The consultation processes will ensure that the special needs of women, youth and PWDs are considered, and will include the preparation, prioritisation, cost-sharing arrangements, and the submission of the CDPs. The CFOs will assist with networking and linkages where relevant, by connecting producers to potential consumers (including, where available, school feeding programmes).

The community consultation processes will be participatory, inclusive and iterative with external inputs from technical experts. They will reach beyond straightforward selection of priorities among options that are already familiar to the beneficiaries and will - amongst other things - aim at introducing appropriate innovations and the upgrading of technologies. The processes will create awareness about other opportunities and success stories that can be shared to widen the range of choices and encourage the modernised production and marketing of nutritious foods, better management of water resources, and improved livelihood opportunities, especially for women, youth and PWD. Communities will be encouraged to try new approaches on a pilot basis, recognising that marginal adjustments to the status quo are unlikely to be transformative, and that to stem the outmigration of youths, "out-of-the-box" ideas and concepts are necessary.

Detailed step-wise guidance on how to implement Sub-component 1.1 is included in the draft Project Implementation Manual (PIM) (for SIFWaP staff) and a Community Engagement Manual (for CFOs), which will draw on several decades of experience with CDD approaches worldwide.

**Sub-component 1.2: Nutrition and Health Awareness.** Output 1.2: Communities are trained on food and nutrition.

In many small island communities, limited household knowledge and awareness of the importance of healthy food contributes to sharply declining health profiles. Even when households have basic nutrition knowledge, they often do not possess sufficiently positive attitudes required to incentivise households to apply their knowledge into good nutritional practices. Sub-component 1.2 will serve to remedy this lack of awareness and positive attitudes and practices, based on stakeholder mapping processes, in parallel with measures to improve local production of nutritious foods under Component 2. This will be done through the CDCs and CIGs in conjunction with institutions such as Island Councils, faith-based organisations, schools, NGOs, advocacy groups, and the ministries responsible for agriculture and natural resources, gender and youth, and health and education.

This Sub-component will consist of a first layer of activities implemented across all communities: (i) gathering and disseminating information on the nutritional and health attributes of indigenous foods (plants/crops, animals, seafood, etc. - extensive international experience can be drawn upon in this context[22]) and documenting traditional knowledge to share with younger generations; (ii) organising nutritional education sessions and listing the spectrum of locally feasible nutrition-sensitive agricultural production activities with a focus on nutritious food; and (iii) scouting for, providing and/or creating recipes and cooking lessons/demonstrations that include food preservation.

A second layer of activities will be implemented as follows: (iv) adapting school curricula and organising nutrition/health training sessions for teachers as well as establishing food gardens in schools for both educational purposes and to provide nutritious foods for students; (v) supporting communities that prioritise nutrition activities in their on CDPs; and (vi) rolling out HHMs to identify households willing to address their nutrition profiles (see SIFWaP's Nutrition Sensitive Strategy above).

There is an abundance of training materials on food and nutrition in the Pacific, and SIFWaP will help to adapt these in local languages including messages about the opportunities to remedy the situation. SIFWaP will also link with the newly established Pacific School Food Network (https://www.pacificschoolfoodnetwork.org/) to enable access to practitioners who have implemented similar activities in the region. The project will use this material to provide nutrition training as part of the community consultation and mobilisation process (under Sub-component 1.1), also using social media to support awareness raising and knowledge acquisition. The material will eventually be included in Community Development Manuals (a simplified version of the CFO's Community Engagement Manual which will be provided to communities for continued use after the project). To the extent possible, SIFWaP will implement innovative approaches to behavioural change in relation to nutritional awareness and consumption patterns.

**Component 2: Investments in Food, Nutrition and Water Security. Outcome 2:** Communities, activity groups and individuals invest in local production and consumption of nutritious foods and improved water management.

Component 2 will focus on the hard investments for food, nutrition and water security. The component will enable private investments as well as community-based public investments. Activities implemented under Component 2 will be financed on a cost-sharing basis with the project providing matching grants to help finance investment costs. Beneficiary contributions for both sub-components will mostly be in the form of labour and

22 Derived from implementing approaches such as those, for example, deployed by Biodiversity under programmes dealing with neglected and under-utilised species. Some of these activities may be integrated as part of a package of interventions, as has been done successfully in a number of IFAD-financed projects (such as for example in Madagascar and in the Indian Ocean SIDS).

local materials reflecting the very low cash incomes in small island communities. Recurrent costs will be the responsibility of beneficiaries, although some initial recurrent costs could be partially covered if included in the initial proposal. Proposed eligibility and assessment criteria and for the allocation of matching grants and grant management procedures are and detailed in the PIM and in Boxes 2, 3 and 4 of Annex 12.

**Sub-component 2.1: Private Good Investments.** Output 2.1: Private investments to increase production of nutritious foods for home consumption and/or sale are supported.

This Sub-component will support private investments that will lead to improved food and nutrition security as well as improved livelihoods. It will support activities identified during the community consultation process in Sub-component 2.1 including, but not necessarily limited to those listed in Box 1 of Annex 12. Private good investments will be undertaken by individuals or individual group members, commercial entities or cooperatives, existing activity groups, CIGs or similar groups will be supported where these exist.

The identification and implementation of private good investments will follow a stepwise approach involving: (i) needs assessment to identify the relevant nutrition-sensitive investment options for each community; (ii) translating the list of options into local language for presentation during community consultations; (iii) where other options emerge during consultations, adding these to the menu of options; (iv) providing training to potential participants to ensure understanding, ownership and sustainability of the investments; and (v) developing matching grant agreements between the Project and the beneficiary groups.

The project will prepare model activity profiles (technical/financial) for each type of activity included in the menu of private options to guide Community Committees, Activity Groups/CIGs and their members in formulating business plans for their selected activities. The required investments will be financed under a matching grant mechanism, supported by technical and managerial training and backstopping to groups and individuals as appropriate –with Island Facilitators and CFOs working in partnership with government extension services. Training will be tailored to each type of investment and will also focus on agriculture as a business, complemented by financial literacy and business management skills. Where relevant, and on a demand-driven basis, informal groups/CIGs and Farmer Organisations may be provided support to transition into formal entities.

The project will undertake careful monitoring of these initiatives to trigger remedial action where necessary and to publicise success stories.

**Sub-component 2.2: Public Good Investments.** Output 2.2: Water supply systems and other infrastructure in rural communities are installed and maintained.

Most public good investments are expected to be in water supply, although other types of public good investments can be financed (see Box 1 of Annex 12). Indeed, water security is a major livelihood issue on atolls and other islands, which affects the availability and quality of water for domestic purposes as well as for food gardens. The building of small markets or investment in public storage infrastructure can also be envisaged as part of this Sub-component, to facilitate the marketing of products.

The options for improving water security vary between islands and communities depending on total rainfall, rainfall seasonality and variability, hydrogeology and population density. In most cases rainwater harvesting and storage is the preferred option in terms of water quality. However, as explained in the SPC hydrology assessment in Working Paper 2, in many locations prudent management of groundwater resources offers a more cost effective and sustainable option, although at risk contamination in densely populated areas of salinisation due to rising sea levels and over-abstraction.

In all cases, the investment solutions identified must be technically and financially feasible in the local context, recognising that more complex options require a higher degree of technical support. Where necessary in the case of water-infrastructure investments, Sub-component 2.2 will begin with a water security and hydrological assessment of the target community, building on the national and island-level assessments undertaken by SPC (see Working Paper 2) to develop tailored solutions suited to local conditions, including possibilities such as rainwater harvesting, groundwater management, solar distillation and desalination. Comparison of water supply options in each instance will include estimation of investment costs and whole-of-life operation and maintenance costs in order to identify the most cost-effective interventions, considering also sustainability issues and system reliability under erratic rainfall regimes.

The project will also support the implementation and maintenance arrangements for the investments under Component 2. For instance, in the case of water, the project will support the formation of water user groups (WUGs) for each water activity/project identified during community consultations. It will provide training to WUGs in operation and maintenance (O&M) of water supply systems; as well as training for one volunteer community water technician (per community) on routine repair and maintenance work. Installation of water supply facilities will be financed through matching grant mechanisms to the WUGs under consensus-based water user agreements covering construction and maintenance of the facilities. The project will then install the facilities with technical support from relevant government agencies, and undertake monitoring to ensure proper O&M.

Proposed eligibility and assessment criteria for matching grants for public good investments are shown in Box 3 of Annex 12.

**Matching Grant Procedures and Cost-Sharing Formulae**

The PIM details the procedures to be employed in administering the matching grants for both private and public good investments based on the principles and guidelines shown in Box 4 of Annex 12.

Proposed cost-sharing formulae for matching grants are shown in Table 7. The percentages vary according to the size of the investment and whether it is a public or a private good. Adjustments may be introduced to beneficiary shares during the preparation of the Matching Grants Manual in the first months of the project. The maximum financing envelope (including counterpart contributions) is US$ 8,000 per application for private investments and US$ 40,000 per application for public investments. Besides the beneficiary contributions below, it is also expected that the governments will finance at least 10% of the proposal amount for public good investments, in cash or in kind. Groups or individuals who receive second or subsequent grants will be asked to provide higher levels of beneficiary contribution.

**Table 7: Cost-Sharing Formulae for Matching Grants (Percent of Project Cost)**

| **Private Good Investments** | | **Beneficiary a/** | **Project** |
|---|---|---|---|
| Women or youth applicants | | 30% | 70% |
| Other applicants | | 40% | 60% |
| | | | |
| **Public Good Investments** | **Govt.** | **Beneficiary** | **Project** |
| Other projects (US$ 15,000 - US$ 40,000) | 10% | 25% | 67% |
| Small projects (< US$ 15,000) | | 15% | 77% |

a/ Beneficiary contributions may be in cash, labour or materials valued at market prices.

**Component 3: Enabling Policy Framework. Outcome 3:** Well-defined investment plans for food, nutrition and water security are in place in each country.

Component 3 focuses on the enabling environment for food, nutrition and water security, through the development of National Agricultural Investment Plans (NAIPs) for each participating country.

**Sub-component 3.1: National Policies and Strategies.** Output 3.1: National Agricultural Investment Plans are prepared for each country.

Building on the process initiated during national consultations in June-July 2019, FAO will provide further support for the development of NAIPs in each county. The NAIPs will comprise five-year investment programmes synchronised with national planning cycles, incorporating SIFWaP but also including other investments required to reach national and sectoral strategic objectives. FAO will implement this component directly in partnership with the lead national agencies for agriculture, nutrition and water, and will rely on inputs from Farmers' Organisations where relevant.

The NAIP process envisaged from the consultations includes four steps: (i) a situation analysis to review policies, legislation and public expenditure. This has been partially completed during the stakeholder consultative; and (ii) prioritisation of issues to be included in the NAIPs. However, a more comprehensive engagement is needed with the populations in outer islands to ensure that all stakeholder interests are represented, with particular support from Farmers Organisations where these exist. The remaining two steps are: (iii) constituting an Interagency Taskforce to develop the draft NAIPs and facilitate prioritisation; and (iv) validation and adoption of the NAIPs through a peer review process. The completion of steps (ii) to (iv) are scheduled to take place during the first 12-18 months of SIFWaP's implementation.

In addition, the component will also finance various analytical policy papers pertaining to the primary sector including, but not limited to: (i) Policy Analysis (ii) Institutional Analysis, (iii) Economic, Import-, Export Analysis, (iv) Farming System Analysis, (v) Donor Mapping. These papers will then feed into national and regional level policy dialogues in order to contribute to evidence-based policy making. The FAO Project Document is presented in Annex 13. The indicators used to monitor and measure the progress and outcome of the policy component will be: (i) *Number of existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment,* for which the target will be mainly the 4 NAIPs; and (ii) *Number of substantive deliverables on food security processes completed,* which will include contributions to all other relevant policies in the target countries.

**Component 4: Project Coordination and Management**

Component 4 will comprise the project coordination and management activities as well as the project Monitoring and Evaluation (M&E) and knowledge management.

**Sub-component 4.1: Project Coordination and capacity building**

Project coordination will be undertaken by a Project Steering Committee (PSC), comprising two representatives from each of the four countries, as well as representatives from the CPCU as observers. Meetings will be held annually, more often if necessary, and rotated between the four participating countries. The mandate of the PSC will be to: (i) review implementation strategies or roadmaps; (ii) deal with issues of harmonisation with national and sectoral policies/strategies and the respective NAIPs; (iii) ensure coordination with other national and regional programmes and projects; and (iv) represent the project in regional forums on water, food and nutrition security, climate adaptation and related fields.

Each country will also have a small Country Project Steering Committee (CPSC), chaired by the lead implementing agency and consisting of other implementing partners, civil society and the private sector. For FSM, the CPSC will include representation from each of the participating states. The CPSCs will meet twice a year, more often if necessary.

This sub-component also includes costs for the CPCU three-person team including a Project, planning and M&E Coordinator, a Finance and Administration and Procurement officer and a part-time Nutrition Specialist. This CPCU will act as a liaison and a support office for the NDUs and the latter will be responsible for project implementation and financial management. The CPCU will also be responsible for delivering training and capacity building assistance to the NDUs, including training on M&E, Financial Management, and procurement, and will also be responsible for leading the mid-line and end-line survey exercises. The CPCU can also act as a conduit for SSTC knowledge sharing and the piloting of innovative practices which have been implemented in neighbouring countries and other SIDS.

**Sub-component 4.2: Project Management and Capacity Building**

The implementation and project management arrangements are described in section 4.L and elaborated in the PIM.

This sub-component includes budget for the effective functioning of the NDUs. Each NDU will consist of four full time staff: a National Technical Manager, who will responsible for the overall project implementation as well as planning, M&E and KM; a Community Outreach officer, who will be responsible for Component 1; an Investment Supervisor, who will be responsible for Component 2; and a National Finance, Administration and Procurement Officer.

**Sub-component 4.3: M&E and Knowledge Management**

The M&E system will cover: (i) monitoring of implementation performance, execution of the Annual Workplan and Budget (AWPB), outreach and effectiveness of the targeting strategy, and (ii) periodic measurement of programme results (outputs, outcomes and impact) versus agreed targets. The system will comply with GAFSP and IFAD reporting requirements. The M&E functions however go beyond reporting to IFAD and GAFSP: they will support the project management and implementation team in ensuring that they are delivering as planned and achieving expected results, and to inform decisions on adjusting implementation when needed.

The M&E Arrangements are detailed in section M (a) of the PDR and in the PIM.

## F. Theory of Change

The Project seeks to strengthen resilience by improving food, nutrition and water security, by addressing three main challenges.

1. A lack of nutrition knowledge and positive attitudes about the importance of producing and consuming nutritious food, as well as skills and capacity to prepare, preserve and store this food.
2. Limited production of nutritious food locally in the context of difficult agricultural conditions, including poor soils, unreliable access to water, lack of access to planting materials, climate-change and other factors.
3. Low access to water for drinking, sanitation and agriculture.

With particular attention to IFAD's three gender dimensions (economic empowerment, equal voice, equitable workloads and benefits), as well as youth, SIFWaP aims to enhance economic opportunities and improve nutrition outcomes by improving the supply and demand for nutritious food through a combination of: (i) raising nutrition knowledge and positive attitudes among the population; (ii) transferring improved climate-smart agricultural technologies and building capacity; (iii) providing investment resources (to address social and productive needs of targeted communities); and (iv) improving Government policies that strengthen access to food markets, enhance nutrition and water security, and eventually upgrade the revenue base and mitigate trade deficits. The full ToC is presented in Annex 2.

## G. Alignment, Ownership and Partnerships

**Alignment with SDGs:** The project is primarily aligned with SDG 2 (ending hunger) and will also contribute to pursuit of SDG 1 (ending poverty). It also touches upon SDG 6 (water and sanitation), SDG 12 (responsible production and consumption) and SDG 13 (climate action). Whilst poverty has remained prevalent in most outer islands, it has recently increased throughout many rural and urban areas due the effects of the Covid-19 pandemic. The impacts include loss of tourism-related employment and reduced remittances. Hunger and malnutrition will be addressed by boosting household production of healthier food crops and by community awareness raising on improved diets and lifestyles.

**Alignment with national priorities:** All four countries possess a range of complementary policies on climate change, environmental management, nutrition and health, gender, youth, disability and social inclusion which reinforce their development aspirations in the agriculture sector in relation to building resilience and strengthening food and nutrition security. Whilst there are no current national nutrition strategies in any of the countries nutrition is integrated into other policies including agriculture, food security and NCD action plans. The four governments aspire to develop the agricultural sector to support higher household incomes, reduce reliance on imported food, diversify dietary options, improve nutrition and health outcomes, and support biodiversity management and ecosystem resilience, particularly in the wake of climate change.

**Alignment with IFAD policies and corporate priorities:** SIFWaP is aligned with the 2016-2025 IFAD Strategic Framework and the first Partnership Strategy objective for the Pacific, namely, "rural people in remote areas and outer islands produce, consume and market more local foods in environmentally sustainable ways". As detailed in Section 1.A.b and Table 5, SIFWaP is also closely aligned with several of IFAD's policies and main corporate mainstreaming priorities including food and nutrition security, poverty targeting, climate change, gender, youth and social inclusion.

SIFWaP is also aligned with the IFAD SIDS approach paper, and IFAD's strategy for engagement in countries with fragile situations.

SIFWaP will focus on two of the three thematic areas highlighted in the IFAD SIDS approach paper, namely "opportunities and employment for smallholder agriculture" and "environment and climate change". The strategy promotes engagement in SIDS founded on "i) public-private-producer partnerships; ii) additional investment and financing; iii) flexible multi-country programming; and iv) technical assistance." SIFWaP manifests this approach, considering that it mobilises supplementary funds where IFAD core financing is not available, covers multiple countries, includes a flexible financing approach and provides significant technical assistance. The project will also promote public-private partnerships, although this is not the primary objective of the project.

SIFWaP is fully aligned with IFAD's strategy for engagement in countries with fragile situations. Specifically SIFWaP:

(i) enhances the resilience of target communities, by improving access to water;
(ii) addresses the main root causes of fragility by promoting climate smart agricultural practices;
(iii) ensures that the specific vulnerabilities of women and youth are addressed specifically; and
(iv) adopts a community-driven approach that shall build trust and social cohesion within the communities, as appropriate.

**Country ownership:** At proposal stage, stakeholder consultations were carried out between May and August 2019 in each of the four countries. At full design stage, consultants were engaged in each country to continue the consultation process and virtual meetings continued to be held from October 2020 onwards. The draft PDR was also sent to the lead implementing agencies in all countries for comments and review. The project will be managed through a decentralised implementation framework that delegates ownership and responsibilities first to the country/federal level, and then to the state/island and community levels, with the active involvement of existing national and sub-national institutions such as Island Councils. At beneficiary level, community engagement and institution-building will ensure ownership of activities and investments.

**Harmonisation and partnerships:** Harmonisation with the activities supported by development partners active in the four countries include: FAO's Hand-in-Hand Initiative (HIHI) in Kiribati and Tuvalu23; KOIFAWP (IFAD) in Kiribati; the Micronesia Challenge and Ridge-to-Reef initiatives in FSM and RMI; the ACIAR Soil Health Programme in Kiribati; and the GCF Country Programme in FSM and RMI as well as the multi-country GCF project in five pacific countries including RMI and Tuvalu24. The Australian Department of Foreign Affairs and Trade (DFAT) is contributing to SIFWaP design by providing technical assistance on food and nutrition security, in parallel with other DFAT-supported initiatives, mainly in Kiribati and Tuvalu. SIFWaP is also harmonised and coordinated with a number of regional programmes and projects supported by SPC and other regional organisations including SPREP.

## H. Costs, Benefits and Financing

SIFWaP will be implemented over six years in four phases:

- Phase 1: Implementation planning and preparatory activities (Year 1)
- Phase 2: First phase of implementation (2-3)
- Phase 3: Second phase of implementation (Years 4-5)
- Phase 4: Consolidation and project completion review (Year 6)

### a. Project Costs

Total project costs (see Annex 3) are estimated at **US$ 19.29 million** over the six-year implementation period. Price contingencies amount to US$ 0.50 million which corresponds to 3% of base costs. There are no physical contingencies. Project costs by Component are presented in Table 8.

Table 8: Costs by Component - Total Including Contingencies (US$'000)

23 Progress Report on the Hand-in-Hand Initiative (fao.org)

24 Enhancing Climate Information and Knowledge Services for resilience in 5 island countries of the Pacific Ocean (https://www.greenclimate.fund/project/fp147)

North Pacific
Small Islands Food and Water Project (SIFWaP)
**Components Project Cost Summary**

| | (AUD '000) | | | (US$ '000) | | |
|---|---|---|---|---|---|---|
| | Local | Foreign | Total | Local | Foreign | Total |
| **A. Component 1: Community Engagement** | | | | | | |
| Sub-Component 1.1: Community Consultations and Mobilisation | 4,289 | 26 | 4,315 | 3,324 | 20 | 3,345 |
| Sub-Component 1.2: Nutrition and Health Awareness | 657 | - | 657 | 509 | - | 509 |
| **Subtotal** | 4,945 | 26 | 4,972 | 3,833 | 20 | 3,854 |
| **B. Component 2: Investments in Food, Nutrition and Water Security** | | | | | | |
| Sub-Component 2.1: Private Goods Investments | 3,321 | - | 3,321 | 2,574 | - | 2,574 |
| Sub-Component 2.2: Public Goods Investments | 9,999 | - | 9,999 | 7,751 | - | 7,751 |
| **Subtotal** | 13,320 | - | 13,320 | 10,325 | - | 10,325 |
| C. Component 3: Enabling Policy Framework | 645 | - | 645 | 500 | - | 500 |
| **D. Component 4: Project Coordination and Management** | | | | | | |
| Sub-Component 4.1: Project Coordination and Capacity Building | 1,818 | 13 | 1,831 | 1,410 | 10 | 1,420 |
| Sub-Component 4.2: Project Management | 3,089 | 52 | 3,140 | 2,394 | 40 | 2,434 |
| Sub-Component 4.3: M&E and Knowledge Management | 333 | - | 333 | 258 | - | 258 |
| **Subtotal** | 5,240 | 65 | 5,304 | 4,062 | 50 | 4,112 |
| **Total BASELINE COSTS** | 24,150 | 91 | 24,241 | 18,721 | 70 | 18,791 |
| Physical Contingencies | - | - | - | - | - | - |
| Price Contingencies | 636 | 3 | 640 | 493 | 3 | 496 |
| **Total PROJECT COSTS** | 24,786 | 94 | 24,880 | 19,214 | 73 | 19,287 |

## b. Project Financing/Co-Financing Strategy and Plan

The project will be financed by a GAFSP grant of US$ 11.65 million for project costs (60% of project costs); a financing gap of US$ 3.47 million (18% of project costs); beneficiaries' in-kind contributions of US$ 2.34 million (12% of project costs); and governments in-kind contributions of US$ 1.83 million (9% of project costs). Table 9 below summarises Component costs by financier. The GAFSP costs in the table do not include the PPG, which has already been allocated.

In the event that the financing gap cannot be met, the project will only be able to reach 5,200 beneficiary households. However a target of 8,000 households is estimated considering the likelihood that the financing gap can be filled during the implementation period.

**Beneficiary contributions** will be in-kind contributions to income generating activities under Component 2.1 and to public investments under Component 2.2. Government contributions will be both in cash and in-kind. Cash contributions cover some costs under Sub-Component 2.2: the Governments will be expected to cover 10% of cash investment costs (about 8% of total costs, assuming that in kind contributions correspond to 20% of the investment) either through direct financing or tax exemptions. The remainder of government counterpart financing will be in-kind: under Sub-Component 1.1 (extension services and other technical support); under Component 3 (travel costs and/or workshop costs for stakeholders' meetings); and under Component 4 (travel costs, social security contributions and utilities and communication costs).

Table 9: Components by Financier

| | GAFSP | % | Gap | % | Beneficiaries | % | Gov., FSM | % | Gov., Kiribati | % | Gov., RMI | % | Gov., Tuvalu | % | Total, governments | % | Total | % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. Component 1: Community Engagement | | | | | | | | | | | | | | | | | | |
| Sub-Component 1.1: Community Consultations and Mobilisation | 2,347 | 20% | 867 | 25% | - | 0% | 79 | 15% | 79 | 15% | 79 | 18% | 79 | 21% | 316 | 17% | 3,529 | 18% |
| Sub-Component 1.2: Nutrition and Health Awareness | 373 | 3% | 157 | 5% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | 530 | 3% |
| ***Subtotal*** | ***2,720*** | ***23%*** | ***1,023*** | ***30%*** | ***-*** | ***0%*** | ***79*** | ***15%*** | ***79*** | ***15%*** | ***79*** | ***18%*** | ***79*** | ***21%*** | 316 | ***17%*** | ***4,059*** | ***21%*** |
| B. Component 2: Investments in Food, Nutrition and Water Securi | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% |
| Sub-Component 2.1: Private Goods Investments | 1,039 | 9% | 559 | 16% | 976 | 42% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | 2,574 | 13% |
| Sub-Component 2.2: Public Goods Investments | 3,916 | 34% | 1,885 | 54% | 1,360 | 58% | 211 | 41% | 211 | 41% | 132 | 31% | 72 | 19% | 627 | 34% | 7,788 | 40% |
| ***Subtotal*** | ***4,955*** | ***43%*** | ***2,445*** | ***70%*** | ***2,336*** | ***100%*** | ***211*** | ***41%*** | ***211*** | ***41%*** | ***132*** | ***31%*** | ***72*** | ***19%*** | 627 | ***34%*** | ***10,362*** | ***54%*** |
| C. Component 3: Enabling Policy Framework | 400 | 3% | - | 0% | - | 0% | 25 | 5% | 25 | 5% | 25 | 6% | 25 | 7% | 100 | 5% | 500 | 3% |
| D. Component 4: Project Coordination and Management | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% |
| Sub-Component 4.1: Project Coordination and Capacity Building | 1,507 | 13% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | 1,507 | 8% |
| Sub-Component 4.2: Project Management | 1,870 | 16% | - | 0% | - | 0% | 179 | 35% | 179 | 35% | 179 | 41% | 179 | 48% | 717 | 39% | 2,587 | 13% |
| Sub-Component 4.3: M&E and Knowledge Management | 202 | 2% | - | 0% | - | 0% | 18 | 3% | 18 | 3% | 18 | 4% | 18 | 5% | 70 | 4% | 272 | 1% |
| ***Subtotal*** | ***3,579*** | ***31%*** | ***-*** | ***0%*** | ***-*** | ***0%*** | ***197*** | ***38%*** | ***197*** | ***38%*** | ***197*** | ***45%*** | ***197*** | ***53%*** | 787 | ***43%*** | ***4,366*** | ***23%*** |
| **Total PROJECT COSTS** | **11,653** | **60%** | **3,468** | **18%** | **2,336** | **12%** | **512** | **3%** | **512** | **3%** | **433** | **2%** | **373** | **2%** | **1,830** | **9%** | **19,287** | **100%** |

## Total Country Allocations.

The indicative *total* country allocations for the GAFSP grants, are US$ 3.5 million for FSM, US$ 3.5 million for Kiribati, US$ 2.6 million for RMI, US$ 1.9 million for Tuvalu, are presented in Table 10 below. The total country allocations were calculated based on the populations of each country, while considering a higher proportion for Tuvalu whose population represents only 4% of the aggregate population of the four countries.

Table 10: Total Country allocation of GAFSP Grant

| **Allocation per country** | **US$ (`000)** | **% of total GAFSP grant** |
|---|---|---|
| FSM | 3,564 | 30.6% |
| Kiribati | 3,554 | 30.5% |
| RMI | 2,628 | 22.6% |
| Tuvalu | 1,908 | 16.4% |
| **TOTAL** | **11,653** | **100%** |

These amounts represent the portion of the GAFSP grant which will be used for investments and activities in each respective countries, and include the costs of the Central Project Coordination Unit (CPCU) which will be managed by IFAD on behalf of the recipient countries to provide the necessary support and technical assistance to the NDUs, and the budget for FAO which will implement a part of the Policy component.

**Eligible Country Allocations.**

The indicative eligible country allocations of the GAFSP grant are the amounts each country is eligible to receive for direct implementation of activities, therefore excluding the costs of the PPG, the CPCU and FAO. These amount to US$ 3 million for FSM, US$ 3 million for Kiribati, US$ 2.1 million for RMI, US$ 1.4 million for Tuvalu (amounts rounded to nearest US$ 100k), as further detailed in Table 11 below.

Table 11: Eligible Country Allocation of GAFSP Grant

| **Implementing agency** | **US$ (`000)** | **% of total GAFSP grant** |
|---|---|---|
| FSM NDU | 3,037 | 25% |
| Kiribati NDU | 3,027 | 25% |
| RMI NDU | 2,101 | 18% |
| Tuvalu NDU | 1,381 | 12% |
| PPG | 350 | 3% |
| CPCU | 1,708 | 14% |
| FAO (Component 3) | 400 | 3% |
| **TOTAL** | 12,003 | 100% |

**Allocation by Expenditure Categories.** Costs by Expenditure Categories are shown in Table 12 for all financiers, and in Table 14**Error! Reference source not found.** for GAFSP grant. Investment costs account for 67% of project costs, and recurrent costs account for 33% of project costs.

Table 12: Project Costs by Expenditure Account and Financier (US$'000)

| | GAFSP | % | Gap | % | Beneficiaries | % | Gov., FSM | % | Gov., Kiribati | % | Gov., RMI | % | Gov., Tuvalu | % | Total | % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **I. Investment Costs** | | | | | | | | | | | | | | | | |
| A. Equipment and Materials | 131 | 1% | 15 | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | 146 | 1% |
| B. Grant and subsidies | 4,134 | 35% | 2,226 | 64% | 2,336 | 100% | 190 | 37% | 190 | 37% | 112 | 26% | 52 | 14% | 9,240 | 48% |
| D. Consultancies | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% |
| Studies | 277 | 2% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | 277 | 1% |
| Technical Assistance | 998 | 9% | 308 | 9% | - | 0% | 15 | 3% | 15 | 3% | 15 | 3% | 15 | 4% | 1,365 | 7% |
| ***Subtotal*** | ***1,274*** | 11% | ***308*** | 9% | **-** | 0% | ***15*** | 3% | ***15*** | 3% | ***15*** | 3% | ***15*** | 4% | ***1,642*** | 9% |
| E. Workshops | 672 | 6% | 51 | 1% | - | 0% | 10 | 2% | 10 | 2% | 10 | 2% | 10 | 3% | 763 | 4% |
| F. Training | 677 | 6% | 244 | 7% | - | 0% | 54 | 10% | 54 | 10% | 54 | 12% | 54 | 14% | 1,136 | 6% |
| ***Total Investment Costs*** | ***6,889*** | 59% | ***2,844*** | 82% | ***2,336*** | 100% | ***269*** | 53% | ***269*** | 53% | ***190*** | 44% | ***130*** | 35% | ***12,927*** | 67% |
| **II. Recurrent Costs** | | | | | | | | | | | | | | | | |
| A. Operating costs | 240 | 2% | 129 | 4% | - | 0% | 113 | 22% | 113 | 22% | 113 | 26% | 113 | 30% | 822 | 4% |
| B. Salaries and allowances | 4,524 | 39% | ***495*** | 14% | **-** | 0% | ***130*** | 25% | ***130*** | 25% | ***130*** | 30% | ***130*** | 35% | ***5,538*** | 29% |
| ***Total Recurrent Costs*** | ***4,764*** | 41% | ***624*** | 18% | **-** | 0% | ***243*** | 47% | ***243*** | 47% | ***243*** | 56% | ***243*** | 65% | ***6,360*** | 33% |
| **TOTAL** | **11,653** | 100% | **3,468** | 100% | **2,336** | 100% | **512** | 100% | **512** | 100% | **433** | 100% | **373** | 100% | **19,287** | 100% |

Table 13: Project Costs by Expenditure Account and Financier , GAFSP Financing (US$'000)

| | GAFSP FSM | | GAFSP Kiribati | | GAFSP RMI | | GAFSP Tuvalu | | GAFSP other | | GAFSP FAO TA | | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | |
| **I. Investment Costs** | | | | | | | | | | | | | |
| A. Equipment and Materials | 31 | 20.9 | 31 | 20.9 | 26 | 18.1 | 23 | 15.8 | 21 | 14.3 | - | - | |
| B. Grant and subsidies | 1,447 | 15.7 | 1,447 | 15.7 | 847 | 9.2 | 393 | 4.3 | - | - | - | - | |
| **C. Consultancies** | | | | | | | | | | | | | |
| | 51 | 18.4 | 51 | 18.4 | 51 | 18.4 | 51 | 18.4 | 73 | 26.3 | - | - | |
| | 226 | 16.5 | 226 | 16.5 | 143 | 10.5 | 80 | 5.8 | 84 | 6.2 | 240 | 17.6 | |
| **Subtotal** | 277 | 16.8 | 277 | 16.8 | 194 | 11.8 | 131 | 8.0 | 157 | 9.5 | 240 | 14.6 | |
| D. Workshops | 137 | 17.9 | 127 | 16.6 | 123 | 16.1 | 113 | 14.8 | 13 | 1.7 | 160 | 21.0 | |
| E. Training | 184 | 16.2 | 184 | 16.2 | 118 | 10.4 | 68 | 6.0 | 124 | 10.9 | - | - | |
| **Total Investment Costs** | 2,075 | 16.0 | 2,064 | 16.0 | 1,309 | 10.1 | 727 | 5.6 | 314 | 2.4 | 400 | 3.1 | |
| **II. Recurrent Costs** | | | | | | | | | | | | | |
| A. Operating costs | 85 | 10.4 | 85 | 10.4 | 49 | 5.9 | 21 | 2.6 | - | - | - | - | |
| **Tota** B. Salaries and allow ances | 877 | 15.8 | 877 | 15.8 | 743 | 13.4 | 632 | 11.4 | 1,394 | 25.2 | - | - | |
| **Total Recurrent Costs** | 962 | 15.1 | 962 | 15.1 | 792 | 12.5 | 653 | 10.3 | 1,394 | 21.9 | - | - | |
| **Total PROJECT COSTS** | 3,037 | 15.7 | 3,027 | 15.7 | 2,101 | 10.9 | 1,381 | 7.2 | 1,708 | 8.9 | 400 | 2.1 | |

The portion of GAFSP financing to be channelled to each country will be defined in the respective Financing Agreements. Each FA will initially include approximately 60% of the eligible amount for the respective country, including 40% of the Grant and Subsidies category, and 60% of the Operational Costs category. This reflects the implementation stages of the project, whereas the Grants can only be disbursed once the community mobilisation activities are completed.

In order to be eligible to obtain an increased allocation, through an FA amendment, each country will be required to achieve a set of implementation targets and meet performance criteria during Phase 1 of the project. Targets will include: finalisation and validation of 80% of the community investment plans; the disbursement of 30% of the total allocation for grants and subsidies (corresponding to 75% of the initial allocation); number of beneficiaries reached; the quality and timeliness of financial management and audit reports; and estimated capacity to absorb additional funding. In case targets are not met, adjustments will be made to strengthen capacity building and reduce investments to more realistic levels, with the possibility of reducing the amount of funds earmarked to countries that do not meet the agree criteria. The detailed set of targets will be included in the PIM. Amounts cancelled due to underutilisation in one country will be available to expand the programme of work in countries that fulfil the performance criteria and achieve their targets.

This arrangement is intended to incentivise each country to implement activities in order to obtain or expand its full allocation, and by rewarding strong performers with additional financing. The proposed resulting allocating per expenditure categories for the countries would be as presented in Table 14.

Table 14: Expenditure Categories: Costab vs Financial Agreement

| | % of budget allocated in initial financial agreement | Costab allocation | | | | | | | Initial financial ageement allocation | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FSM | Kiribati | RMI | Tuvalu | Other | FAO TA | Total | FSM | Kiribati | RMI | Tuvalu | Other | FAO TA | Total |
| **I. Investment Costs** | | | | | | | | | | | | | | | |
| **A. Equipment and Materia** | 100% | 31 | 31 | 26 | 23 | 21 | - | 131 | 31 | 31 | 26 | 23 | 21 | - | 131 |
| **B. Grant and subsidies** | 40% | 1,447 | 1,447 | 847 | 393 | - | - | 4,134 | 579 | 579 | 339 | 157 | - | - | 1,654 |
| **D. Consultancies** | | | | | | | | | | | | | | | |
| **Studies** | 100% | 51 | 51 | 51 | 51 | 73 | - | 277 | 51 | 51 | 51 | 51 | 73 | - | 277 |
| **Technical Assistance** | 100% | 226 | 226 | 143 | 80 | 84 | 240 | 998 | 226 | 226 | 143 | 80 | 84 | 240 | 998 |
| **Subtotal** | | | | | | | | | | | | | | | |
| **E. Workshops** | 100% | 137 | 127 | 123 | 113 | 13 | 160 | 672 | 137 | 127 | 123 | 113 | 13 | 160 | 672 |
| **F. Training** | 100% | 184 | 184 | 118 | 68 | 124 | - | 677 | 184 | 184 | 118 | 68 | 124 | - | 677 |
| **Total Investment Costs** | | **2,075** | **2,064** | **1,309** | **727** | **314** | **400** | **6,889** | **1,206** | **1,196** | **800** | **492** | **314** | **400** | **4,409** |
| **II. Recurrent Costs** | | | | | | | | | | | | | | | |
| **A. Operating costs** | 60% | 85 | 85 | 49 | 21 | - | - | 240 | 51 | 51 | 29 | 13 | - | - | 144 |
| **B. Salaries and allowances** | 60% | 877 | 877 | 743 | 632 | 1,394 | - | 4,524 | 526 | 526 | 446 | 379 | 1,394 | - | 3,272 |
| **Total Recurrent Costs** | | **962** | **962** | **792** | **653** | **1,394** | **-** | **4,764** | **577** | **577** | **475** | **392** | **1,394** | **-** | **3,416** |
| **TOTAL** | | **3,037** | **3,027** | **2,101** | **1,381** | **1,708** | **400** | **11,653** | **1,784** | **1,774** | **1,275** | **884** | **1,708** | **400** | **7,825** |
| **Total, % of Costab allocation** | | | | | | | | | **59%** | **59%** | **61%** | **64%** | **100%** | **100%** | **67%** |

Table 15: Project costs by Component and Year

North Pacific

Small Islands Food and Water Project (SIFWaP)

**Project Components by Year -- Totals Including Contingencies**
**Totals Including Contingencies (US$ '000)**

| | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | Total |
|---|---|---|---|---|---|---|---|
| **A. Component 1: Community Engagement** | | | | | | | |
| Sub-Component 1.1: Community Consultations and Mobilisation | 571 | 753 | 732 | 610 | 493 | 370 | 3 529 |
| Sub-Component 1.2: Nutrition and Health Awareness | 74 | 231 | 109 | 90 | 26 | - | 530 |
| **Subtotal** | 645 | 983 | 841 | 700 | 519 | 370 | 4 059 |
| **B. Component 2: Investments in Food, Nutrition and Water Security** | | | | | | | |
| Sub-Component 2.1: Private Goods Investments | - | - | - | 1 287 | 1 287 | - | 2 574 |
| Sub-Component 2.2: Public Goods Investments | - | 59 | 61 | 3 805 | 3 734 | 128 | 7 788 |
| **Subtotal** | - | 59 | 61 | 5 092 | 5 022 | 128 | 10 362 |
| C. Component 3: Enabling Policy Framework | 250 | 250 | - | - | - | - | 500 |
| **D. Component 4: Project Coordination and Management** | | | | | | | |
| Sub-Component 4.1: Project Coordination and Capacity Building | 259 | 249 | 241 | 246 | 218 | 294 | 1 507 |
| Sub-Component 4.2: Project Management | 415 | 394 | 414 | 453 | 418 | 493 | 2 587 |
| Sub-Component 4.3: M&E and Knowledge Management | 62 | 31 | 79 | 32 | 16 | 52 | 272 |
| **Subtotal** | 735 | 674 | 734 | 730 | 653 | 840 | 4 366 |
| | 1 630 | 1 967 | 1 636 | 6 523 | 6 194 | 1 338 | 19 287 |

## c. Disbursement

The GAFSP funds will be held in an IFAD Project Account in US$. Grant Recipients (Ministry of Finance (MOF) for each country) will be required to open a separate Designated Account (DA), denominated in US$ in FSM and RMI, and AUD in Kiribati and Tuvalu, segregated from other sources of financing, for receipt of the grant funds. The DA will be operated by the MOF and will be administered following Imprest Account arrangements. Grant funds will be disbursed by IFAD in US$. Maximum Authorised Allocation (AA) for each DA will be approximately six months of project expenditures (equivalent of US$ 300,000 for FSM and Kiribati and equivalent of US$ 200,000 for RMI and Tuvalu). One or more advances may be withdrawn within this AA. The Statement of Expenditure (SOE) threshold for all expenditures pertaining to all categories is recommended to be capped at US$ 50,000.

Once the financing agreements enter into force, each country may request withdrawals from the Grant by submitting Withdrawal Applications (WA) to IFAD along with all relevant supporting documentation. As Kiribati is already using the IFAD Client Portal (ICP) for submission of documentation for withdrawal for another ongoing project (KOIFWAP), it is foreseen that WAs for SIFWaP will also be made on ICP. For the other three countries, an assessment will be made to analyse whether sufficient infrastructure and capacity is available to allow for on boarding on ICP. Provided that the outcome of this assessment is positive, submission of documentation for all withdrawals will be made on ICP.

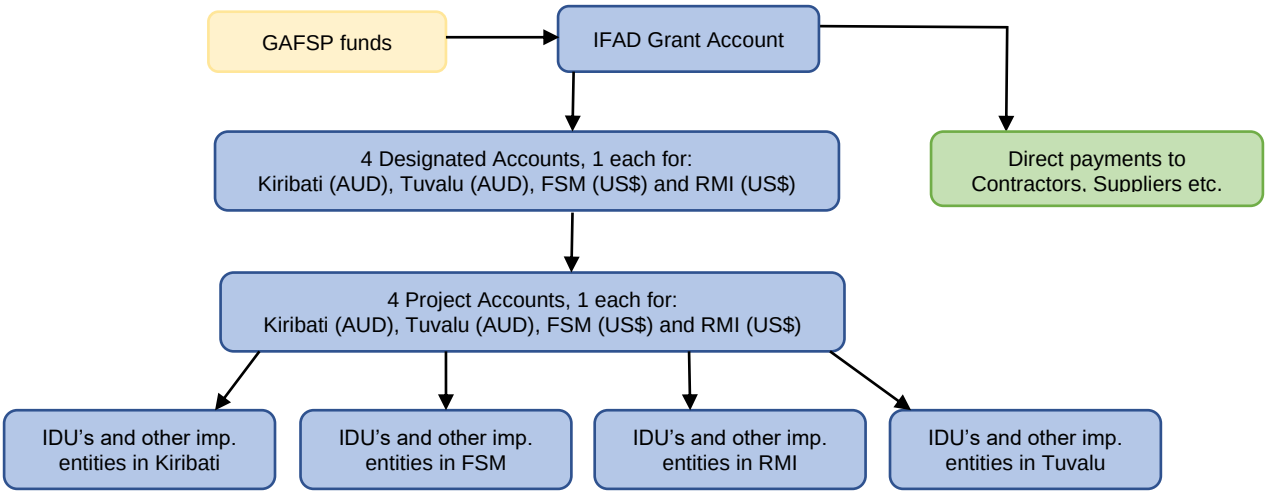
Disbursements of funds under to Component 3 will be made by GAFSP directly to FAO, in respect of their role as providing TA for the development of NAIPs under Phase 1.

An initial advance will be made to each respective DA to meet the costs of project start-up, subject to any limits established in the Financing Agreement, after the date of entry into force and approval of the AWPB for the first year of the project.

The NDUs under each lead implementing agency will open and maintain a project account denominated in national currency for project operations: US$ in the case of FSM and RMI and AUD for Kiribati and Tuvalu. The NDUs will finance project activities through contracts or Memorandum of Understanding (MOUs) with implementing partners including NGO(s) as well as various other agencies.

Project accounts will be replenished as necessary in alignment with procedures stipulated in the financing agreement and in the LTR, as well as in accordance with expenditures incurred under approved AWPB. The Project Director shall be authorized to operate the Project Accounts, in line with government regulations. Government counterpart financing (cash and in-kind) will be segregated from the IFAD financing and other financing sources. The funds flow is outlined in the flowchart below.

Figure 1: Flow of Funds




## d. Summary of Benefits and Economic Analysis

As shown in the Economic and Financial Analysis (EFA) in Annex 4, the project will generate tangible and intangible benefits by building community capacity, and investing in home gardens, livestock farming and in public infrastructure, particularly rainwater harvesting. The main quantifiable benefits will include: (i) increased food availability and a more diverse diet through home gardening and livestock activities; (ii) reduced household expenditure on imported foods; (iii) income generation from selling production surpluses; (iv) reduced incidence of water-borne diseases; and (v) time saved on water collection which can be used on other productive activities.

A total of 8,000 households will be reached across the four countries. All households will have the opportunity to participate in community planning, agricultural technical training, and nutritional/health awareness. Approximately 4,000 households will be direct beneficiaries of the matching grants for home gardens and livestock activities. In addition, over 44,000 people from 7,020 households are expected to benefit from improved access to clean water. Construction of 180 rainwater harvesting systems will generate a total of 1,540 jobs working a total of 5,728 days.

Given the open menu of potential investments, the EFA is based on financial models of home gardens, piggeries and two types of rainwater harvesting systems. These are expected to be the most popular investments for beneficiaries. In the home garden model, the without project scenario involves consumption of around 90% of crops harvested. With project, the beneficiaries are expected to cultivate new crops to meet the nutritional needs of the family, with increasing surpluses available for local markets. Households are expected to generate incremental income per year of US$ 830 in FSM, US$ 747 in Kiribati, US$ 1,490 per year in RMI and US$ 2,336 per year in Tuvalu. The piggery model shows that households are expected to generate approximately US$ 377 per year in additional income.

The rainwater harvesting models includes either a 10,000 Litre or 25,000 Litre system. The investment will reduce the time spent collecting water and improve water quality thereby reducing the number of sick days for working members of the family. Based on the average household size in each country, a typical household would save around 17-19 days per annum. There are also many non-quantifiable health and wellbeing benefits from secure access to clean water, as well as increased availability of water for home gardening.

The project's economic internal rate of return (EIRR) over 20 years is estimated at 25%. The net present value of the project is estimated to be US$ 22.4 million at a discount rate of 10%. The project was tested for sensitivity to variations in benefits and costs and for lags in the realisation of benefits. A fall in benefits by 20%, or a similar increase in costs would reduce the EIRR to around 21%. A two-year delay in benefits would reduce the EIRR to 19%.

### e. Exit Strategy and Sustainability

**General:** The exit/sustainability strategy is detailed in Annex 10. The basic foundation for sustainability is the up-front investment in community consultation, planning and capacity-building. This will ensure that SIFWaP supports interventions that have been evaluated, selected and prioritised by the communities, and to which they demonstrate commitment through cost-sharing. Wherever possible the project will work through existing community organisations which have better prospects of being sustained than project-oriented bodies. The project will also provide training and capacity building in O&M of jointly-owned facilities.

**Implementation Phasing:** It will be explained to potential beneficiaries at the outset, that the period and scope of project support will be finite and time bound. Phase 1 provides the time needed to establish sound community consultation and planning processes. Phase 3 is essentially the exit strategy, whereby no new activities would be initiated during the final year of the project, allowing adequate time for consolidation, handover and orderly withdrawal of project support.

The main challenge with the implementation of the exit strategy will be ensuring that the community plans are developed and assimilated by the communities. Furthermore the cohesion and strength of community organisations will be a factor in ensuring the long-term sustainability of investments, including the O&M aspects.

Monitoring the progress in the development of the community plans, and qualitative feedback on the performance of community organisations will allow the project to assess the level of readiness to implement the exit strategy.

**Incentives:** For private good-type activities, sustainability will be underpinned by a focus on individual incentives relating to the production and consumption of nutritious foods, and/or commercialisation of subsistence-oriented activities. Aside from demonstrations and training plots in schools, the matching grants will prioritise individually-owned

ventures over communally-owned ones, on the grounds that they generally have better sustainability prospects.

**Project Assets and Services:** Ownership and management responsibility for all assets, will rest with project beneficiaries from the outset. This avoids the need to transfer ownership during the course of implementation, with risks to sustainability where the assets are seen as belonging to the Government or the Project.

**Institutions and Management Structures:** The Project will be managed through a decentralised implementation framework with existing/permanent national and sub-national institutions, providing capacity-building where needed.

**Social Inclusion:** The community-driven approach will spearhead the process of social access and inclusion, particularly regarding the participation of women, youth and PWD. This reflects the strong social structures and the need to engage both traditional and formal institutional leaders to enable inclusive community engagement. This approach will facilitate the inclusion of disadvantaged and vulnerable groups including elderly, women, youth and the disabled. Employing project staff from local communities also improves the quality of community engagement and social inclusion.

## 3. Risks

### I. Project Risks and Mitigation Measures

**Overview:** For fragile SIDS countries, any initiative in agriculture and food security entails significant risks. However, the risks are understood and manageable as shown by the experience with KOIFAWP, which has entered a second phase and has been rated as "moderately satisfactory" by the latest supervision missions. A primary element of risk mitigation, for all risks, has been to ensure simplicity in design.

**Risk Analysis Process:** The workshops and other consultations undertaken during preparation of the proposal and PDR have sought stakeholder views on the country-level and project-specific risks that need to be reflected in the project design. Consideration was also given to the lessons learned from implementation of similar IFAD-supported programmes in the Pacific, particularly in Kiribati, Tonga, Fiji and Solomon Islands. Furthermore, the design process has included background studies on selected fragility issues related to food systems in each country. A detailed analysis of risks and mitigation measures is presented in Annex 9.

### J. Environmental and Social Category

SIFWaP is assessed as Environmental and Social **Category B** - see SECAP Review Note in Annex 5. The community consultation approach that provides the entry point for project engagement is expected to result in predominantly positive social outcomes, but with some risks of elite capture and failure to include vulnerable groups. There are also growing concerns about gender-based violence in rural communities associated with the COVID-19 restrictions on social distancing and movement, together with financial hardship from reduced economic activity and remittance flows. Health issues also need to be carefully managed in view of poor nutrition and sanitation, the very limited availability of health services on outer islands, and climate-related health challenges.

The non-prescriptive approach to selecting both public and private good interventions also carries some risks which need to be managed. The exclusion list proposed in Annex 5 is expected to screen out obviously inappropriate proposals at an early stage, but the otherwise open menu of options calls for prior assessment of risks during the evaluation and approval process. For water-related investments the process must be informed by a hydrological assessment to ensure that scarce resources are sustainably managed.

Similarly, investments in feeder roads or small-scale agro-processing facilities need to be assessed to minimise the risk of adverse outcomes. Procedures for doing this are detailed in the ESMF and the PIM along with appropriate mitigation/monitoring measures.

The approach to management of social and environmental risks also recognises the limited technical, financial and institutional capacity to assess proposals, monitor results and where necessary, enforce regulations. Environmental policies, laws and regulations are generally well developed at national level but the capacity to implement these is particularly weak on outer islands. The same applies to policies and laws relating to gender equality, youth engagement, disability and social inclusion. SIFWaP will accommodate these weaknesses by ensuring that the community consultation approach, gives due consideration to social and environmental risk minimisation.

Potential Positive Impacts on natural resources include (i) improvement of soil quality through home gardening activities that are not intensive and are aimed at building the poor coral soils that are typical of atoll environments. Furthermore, the adoption of technologies such as biogas digesters may further improve the soils through better recycling of 'waste resources' into high quality organic fertilizers.

Potential Negative Impacts could include: (i) the impact of agricultural intensification on habitats, ecosystems and/or livelihoods, albeit the extent of intensification as result of SIFWaP interventions is expected to be modest; and (ii) the potential negative impact of infrastructure and the use of construction material may have adverse impacts on the soil, water and local flora and fauna. However the scale of the infrastructure will be small and potential negative impacts will be rigorously assessed before implementation.

### K. Climate Risk Classification

The Project is assessed as having **high climate risk** based on both observed trends and climate forecasting models. The atoll environment is critically sensitive to rising sea level and temperatures which will place pressure on agricultural productivity and water supplies for drinking and sanitation as well as food gardens. According to IFAD's SECAP Guidelines a detailed climate risk assessment is required for each island and community selected for participation in the Project. This will be undertaken after the Project areas (islands and communities) have been defined according to the screening and selection criteria (which include climate risk).

The assessment will aim to: (i) improve the robustness of investments affected by climate-related hazards; (ii) increase the resilience of development outcomes; and (iii) avoid interventions which inadvertently increase vulnerability to climate hazards. The assessment will: (i) detail projected climate change impacts; (ii) identify potential climate-related hazards; (iii) identify "hot-spots" of high vulnerability to climate hazards; (iv) evaluate the impact of climate change along value chains; (iv) recommend mitigation measures; and (v) define key performance indicators and monitoring arrangements for climate risk management.

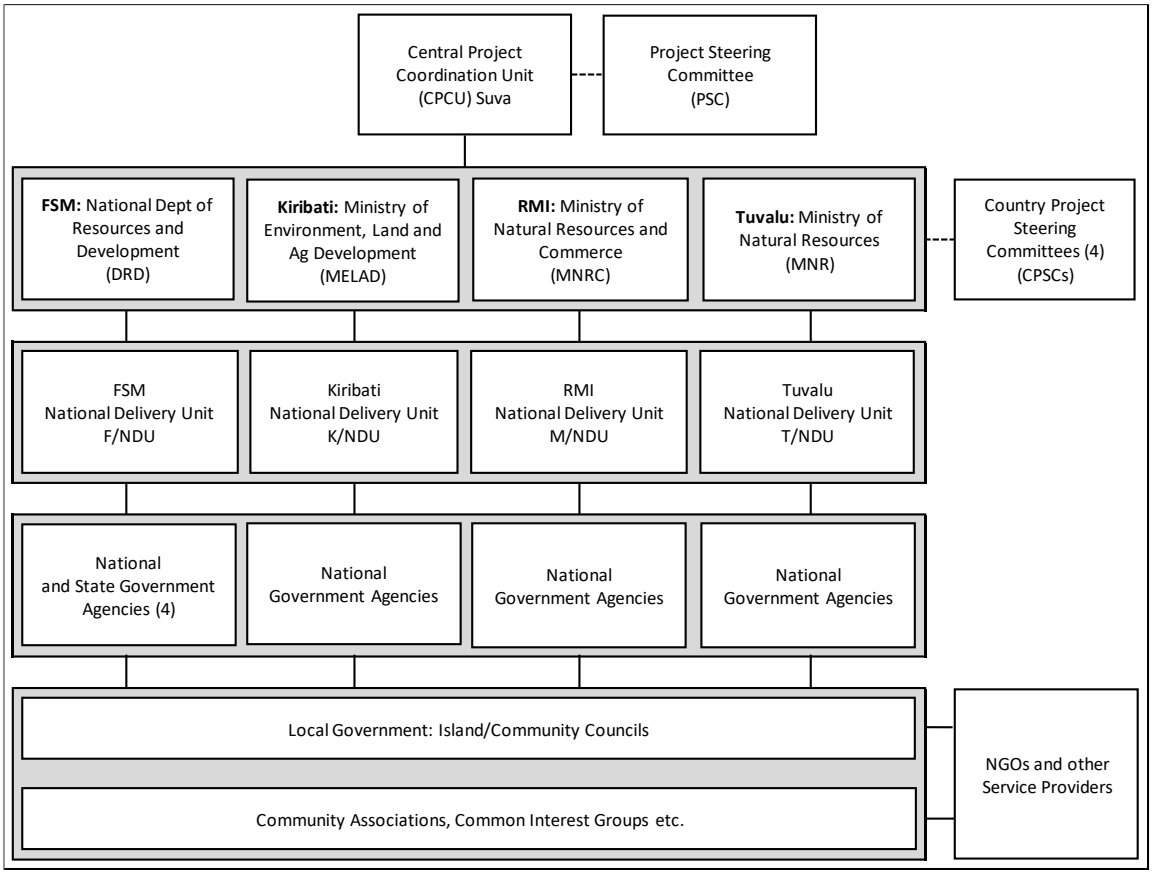
## 4. Implementation

### L. Organisational Framework

### a. Project Coordination and Management

Project management and coordination arrangements are summarised in the organigram in Figure 1.

Figure 2: SIFWaP Implementation Organigram




**Central Project Coordination Unit (CPCU):** As a multi country initiative, SIFWaP will have a hub-and-spoke project management structure comprising a regional CPCU plus four National Implementing Agencies each with a National Delivery Unit (NDU). The CPCU will be operated by a suitably qualified project management company/institution selected by international competitive bidding and will provide project management technical assistance to the NDUs. It is envisaged that IFAD will engage the CPCU firm directly on behalf of the recipient countries.

The CPCU will have a three-person team including a Project and M&E Coordinator, a Finance, Administration and Procurement Specialist and a part-time Nutrition Specialist. This CPCU will act as a liaison and a support office for the NDUs and the latter will be responsible for project implementation and financial management. The CPCU will also be responsible for delivering trainings and capacity building TA to the NDUs, including trainings on M&E, Financial Management, and procurement, and will also be responsible for leading the mid-line and end-line survey exercises. The CPCU can also act as a conduit for SSTC knowledge sharing and the piloting of innovative practices which have been implemented in neighbouring countries and other SIDS.

**National Delivery Units (NDUs):** Each NDU will consist of four full time staff: a National Technical Manager, who will responsible for the overall project implementation at national level, as well as planning, M&E and KM; a Community Outreach officer, who will be responsible for Component 1; an Investment Supervisor, who will be responsible for Component 2; and a National Finance, Administration and Procurement Officer.

**Island Delivery Units (IDUs):** The IDUs will be housed within the Island Councils and will responsible for all project activities on the respective island. They will be led by the Island Facilitators and include a number of CFOs depending on the number of participating communities. Technical specialists such as engineers and extension officers will be engaged to support the work of the NDUs when required.

**Other Implementation Partners:** In addition to the lead implementing agency, a number of other government agencies will be engaged in project implementation under MOUs with the lead agency. These will vary between countries (and for FSM between States) but may include the departments or ministries with responsibility for: water and sanitation, health and nutrition, infrastructure and public works, agriculture, fisheries, forestry, livestock, handicrafts, education, women and youth affairs, environment/natural resource management, commerce, etc. These agencies will be engaged as required to support the implementation of project activities in accordance with their mandates. Partnerships with other ministries and agencies will be defined in the CDPs, which will be completed in Year 2 or 3 of the project, thus allowing sufficient time for the preparation of MoUs without delaying project implementation. In fact, template MoUs can be drafted as part of the project preparation.

**Sub-National Implementing Agencies:** A range of sub-national agencies will also participate including State Government agencies in FSM and local government bodies such as Island or Community Councils in FSM and elsewhere. These will have an important role in the implementation of water supply systems and other public good type investments under Sub-component 1.2. Existing and/or project-initiated groups (such as the Community Committees) will also be engaged in local-level implementation of project activities. Other Civil Society Organisations such as farmer/fisher associations and faith-based organisations (church groups) will also participate at local level.

**Non-Government Organisations:** NGOs will play a key role in project implementation. In each country, one or more NGOs will be selected through a competitive process to facilitate and support community engagement (Sub-components 1.1), nutrition and health awareness (Sub-component 1.2) and the implementation of food, nutrition and water security investments (Component 2). The NGOs will be required to work collaboratively under performance-based contractual arrangements. The project design team has identified several NGOs in the participating countries that have the capacity to deliver the necessary services.

**Private sector partners:** Although the private sector is poorly developed in most areas where SIFWaP will operate, and mostly at small and medium enterprise (SME) scale, private sector engagement will be pursued where opportunities arise. Such opportunities may include: (i) procurement of materials and equipment (e.g. water tanks, machinery, tools); (ii) building linkages with producer groups for supplying agricultural produce to traders or intermediaries; (iii) establishment and operation of plant nurseries; and (iv) engaging local service-providers for delivering training to beneficiaries. Possible partners may include shipping/aviation companies, tourism operators and food retailers. Opportunities will be actively encouraged for producer groups to engage in commercial activities on a small scale, such as aggregating produce for sale to public institutions and/or local markets.

**Capacity Building:** Significant capacity building support will be embedded in all project Components and Sub-Components as shown in Table 15:

Table 15: Capacity Building

| Component/Sub-component | Capacity Building |
|---|---|
| Component 1: Community Engagement | |

| | |
|---|---|
| Sub-component 1.1: Community Consultation and Mobilisation | • Preparation of systems, procedures and training material for community consultations.<br>• Familiarisation visit to Kiribati to learn from community engagement experience Capacity building for Community Committees.<br>• Identify/select and train activity leaders to undertake demonstrations and training. |
| Sub-component 1.2: Nutrition and Health Awareness | • Preparation of training materials in local language.<br>• Training for selected households to demonstrate good nutrition and health/sanitation practices. |
| **Component 2: Investments for Food, Nutrition and Water Security** | |
| Sub-component 2.1: Private Good Investments | • Technical and managerial training and backstopping for farmer organisations, cooperatives, activity groups and SMEs. |
| Sub-component 2.2: Public Good Investments | • Formation and capacity building for Water User Groups in operation and management. |
| **Component 3: Enabling Policy Framework** | |
| Sub-component 3.1: National Agricultural Investment Plans | • Ongoing technical assistance from FAO for the development of NAIPs during Phase 1 of the project.<br>• Where relevant and feasible, TA will be provided to FOs to support policy engagement |
| **Component 4: Project Coordination, Management and Capacity Building** | |
| Sub-component 4.1: Project Coordination and capacity building | • Induction training for PSC and CPSC members. |
| Sub-component 4.2: Project Management | • Support provided to lead implementing agencies and National Delivery Units by IFAD supervision and implementation support missions. |
| Sub-component 4.3: M&E and Knowledge Management | • Technical assistance in the design and implementation of M&E and Knowledge Management systems.<br>• Financial management training |

## b. Financial Management, Procurement and Governance

**Financial Management Risk:** The project FM inherent risk is assessed to be Substantial as three of the Recipients do not have any direct previous experience with IFAD procedures and requirements, albeit some experience with other donor-funded projects. Furthermore, based on the conducted FM assessment at design, there are certain issues and weaknesses noted in terms of FM capacity and internal controls (related to staffing, accounting software and policies/procedures under development). No recent TI corruption perceptions index is available for any of the four countries and from the World Bank Debt Sustainability Analysis (DSA), it is noted that all countries are at high risk of external debt distress as of the most recent assessment25 and country level FM risk is assessed to be Substantial.

As Kiribati currently has an active project financed by IFAD (KOIFWAP), FM procedures are to a large extent already in place and SIFWaP will build on these existing structures. It is to be noted that some issues has been observed as regards the internal control environment and the FM capacity. A remote training session on IFAD FM requirements was held in May 2021 by a contracted FM consultant to improve FM capacity and performance and attended by the Kiribati KOIFWAP project staff.

For the other three countries, essential FM procedures are generally in place (RMI has outlined FM procedures in their MOF Standard Operating Procedures (SOP) manual) but the conducted FM assessment has identified certain weaknesses which has to be remedied.

25 https://www.worldbank.org/en/programs/debt-toolkit/dsa

This relates to reports being manually drafted and not generated from accounting software, issues pertaining to the reporting on fixed assets noted from previous audits and lack of sufficiently detailed information on aspects such as staffing and segregation of duties (for FSM).

It is foreseen that the project FM risk will be lowered to *Moderate* given the proposed programme structure and with various mitigating actions implemented. Mitigating measures identified include as follows: (i) Qualified FM staff shall be in place for each NDU and staff shall not be subject to regular transfers to other departments; (ii) Training on relevant IFAD FM procedures to be provided to project FM staff, as well as ongoing internal FM capacity building activities. Guidance will also be provided by the CPCU to project FM staff on i.a. reporting as needed. (iii) Computerised accounting software shall be adopted and used for the project, including for generating of financial reports; (iv) The project will reflect applicable FM procedures in the PIM, ensuring i.a. proper segregation of duties and a clear structure of roles and responsibilities/accountabilities. This information shall be regularly reviewed (as a minimum on an annual basis) and updated as required.

Further to this, the programme implementation structure with a CPCU having a coordinating function and available to provide support for reporting and financial management will further serve to mitigate the risk.

**Financing Agreements:** In addition to IFAD's General Conditions, and based on the above mentioned, the respective Financing Agreements will include specific provisions and conditions to be fulfilled prior to first withdrawal from the grant financing: (i) The country NDU shall have been established and the key Project staff (i.e. Project Director and Financial Staff) shall have been appointed; (ii) The Designated Accounts shall have been duly opened and the names of authorized signatories shall have been duly submitted to the Fund; (iii) The PIM shall have been approved by IFAD; and (iv)A computerized accounting system in compliance with national standards and acceptable to the Fund, shall have been implemented by the Project.

IFAD will sign separate Financing Agreements with the Governments of each of the four recipient countries, which will outline the general arrangements for financial management and procurement. As outlined under the "Disbursements" section, each country Recipient (MOF) will open a DA for the receipt of grant funds, and funds will subsequently be transferred to Project Accounts at NDU level (funds flow structure further detailed under aforementioned section of the PDR). It is the responsibility of the Recipient (MOF) to submit WAs to IFAD, following consolidation of inputs from relevant project parties (NIA/NDU, IDUs etc.) and review by the CPCU.

**Financial Reporting:** The main responsibility for financial reporting lies with each Recipient. The NDUs are responsible for submitting timely reports to the respective MOF who subsequently shares reporting with the CPCU for review prior to submission to IFAD. NDUs will be required to comply with international accounting standards as well as with financial management and reporting provisions as noted in the PIM to facilitate consolidation. Adequate reporting and audit arrangements will further have to be included in respective contracts with implementing partners to ensure proper usage of funds and that the Recipient can deliver reporting as per stipulated in relevant project documentation.

**Auditing:** Under the IFAD General Conditions for Agricultural Development Financing, the project is required to have their accounts audited annually in accordance with standards and procedures acceptable to IFAD. The financial statements will be independently audited in each country and each Recipient is responsible for submission of the audit reporting to IFAD before the stipulated deadline. The Recipient is responsible for the auditor selection and appointment process. Auditors should normally be appointed in advance of the start of the period to be audited, to allow the auditor sufficient time to plan and carry out a

comprehensive examination of the project financial records and accounts and the selection of auditor is further subject to IFAD no-objection. The CPCU accounts will further be subject to a separate external audit, as per requirements to be noted in the contract.

**Taxation:** The grant financing shall not be used for the payment of taxes which are determined by IFAD to be excessive, discriminatory or otherwise unreasonable.

**Transparency and Disclosure:** In line with the standards of the International Aid Transparency Initiative, borrowers/recipients are encouraged to publish relevant financial information on their own websites, for increased accountability. Borrowers/recipients must ensure that the audit TORs explicitly mention the right of the borrower/recipient and of IFAD to publish the audit report, with no limitation-of-use clause.

**Procurement**

Annex 14 presents all the detailed findings of the procurement assessment along with a detailed description of the procurement arrangements which are summarised here. In addition, a Procurement Manual has been prepared as part of the PIM.

Procurement of goods, works and services shall be carried out in accordance with the provisions of the Procurement Regulations and its implementation arrangements which also includes the use of e-procurement systems if available in-country, to the extent such are consistent with the IFAD Project Procurement Guidelines. Each AWPB must contain a Procurement Plan, which shall identify procedures which must be implemented by the Recipient in order to ensure consistency with the IFAD Project Procurement Guidelines.

The NDUs will delegate procurement authority to NGO(s) to conduct simple procurement goods and shall prepare Procurement Plan which is an integral part of AWPB and includes information on the types of goods/works/consulting services to be procured, procuring agency/unit, methods of procurement, costs, schedules and IFAD's review requirement. The timely implementation of procurement activities is essential to avoid delays with Programme implementation.

There will be procurement specialist in CPCU who will fully assist and make coordination on day-to-day procurement monitoring process and administration as well function as backstopping for 4 NDUs in 4 countries.

IFAD will undertake to review the provisions for the procurement of goods, works and services to ensure that the procurement process is carried out in conformity with its Procurement Guidelines. Requests for IFAD prior review and no objection, should be routed through NOTUS ("No Objection Tracking Utility System (NOTUS)"[26]. All contracts must be listed in the Register of Contracts, which should be updated and submitted to the IFAD Country Programme Manager on a monthly basis. The sample form to be used and instructions are detailed in PIM

Consolidated Procurement risk for SIFWaP project overall for all 4 islands countries are moderate to high risk. The remote geographical location for those pacific countries makes the implementation of procurement life cycle is challenging, in addition most of the 4-country procurement system could not accommodate complex procurement process to meet with procurement principles and policy. The previous experience in the most pacific

26 The No Objection Tracking Utility System (NOTUS) as an integrated system in IFAD Client Portal (ICP) enforces a step-by-step documentation of the workflow for the process for the entire procurement process (expression of interest, IFAD No-Objection, to contract signature) according to the type (e.g. national competitive bidding, international competitive bidding) and object of procurement (e.g. civil works, goods, services). NOTUS also has function as tracking system for non-procurement workflow (e.g. Project Implementation Manual-PIM).

country adapts or harmonizes with donor/ IFIs procurement system. As explained more detail in annex 9 for each Procurement Risk Matrix IFAD will provide continues support to mitigate the procurement risk, together with each country procurement system when available.

## M. Planning, M&E, Knowledge Management and Communication

### a. Planning, M&E, Learning, Knowledge Management and Communication

**Planning.** In line with the decentralised approach to Project management, implementation plans including AWPBs will be aggregated up from community to island level (by the IDUs); and subsequently to national level (by the NDUs), and whole-of Project level (by the CPCU).

**M&E.** The M&E system will cover: (i) monitoring of implementation performance, execution of the Annual Workplan and Budget (AWPB), outreach and effectiveness of the targeting strategy, and (ii) periodic measurement of programme results (outputs, outcomes and impact) versus agreed targets. The system will comply with GAFSP and IFAD reporting requirements including the requirement for disaggregation of data by gender, age and disability status. The M&E functions however go beyond reporting to IFAD and GAFSP: they will support the project management and implementation team in ensuring that they are delivering as planned and achieving expected results, and to inform decisions on adjusting implementation when needed.

The project logframe includes: (i) GAFSP Indicators, (ii) IFAD Core Outcome Indicators; and (iii) other project indicators. GAFSP and IFAD Core indicators comply with corporate definitions, detailed in the indicator descriptions in the PIM. GAFSP Tier 1 indicators are at impact level, while GAFSP Tier 2 indicators are at output or outcome level. For each level, the frequency of reporting required by IFAD and/or GAFSP is specified in the PIM. While output reporting requirements are every six-months for GAFSP, it is recommended to have monthly reporting on activities and outputs. There will be baseline mid-line and end-line surveys and post-MTR there will be regular reporting on outcomes. The CPCU and NDU should also refer to the IFAD Core Outcome Indicators Guidelines which provides clear definitions of indicators and guidance on how to collect the relevant data.

The responsibility for project M&E and for reporting on the project's progress will rest within each NDU with support from the CPCU. The CPCU will be responsible for consolidating the different country reports for reporting to IFAD and GAFSP. Each country Recipient will be responsible for the financial reporting to IFAD, with support from the CPCU.

The CFOs and Island Facilitators will also be significantly involved in M&E, as the monthly activity reports prepared by CFOs will inform most indicators at output and outreach level. Tablets will be supplied to the CFOs and Island Facilitators to enable direct data entry and transmission to the NDU.

Resources are allocated for collecting data on digital platforms, based on the system currently being rolled out in the KOIFAWP project, to reduce heavy data entry requirements.

Knowledge management and communication will focus on facilitating knowledge sharing across the four countries and knowledge sharing from the IFAD KOIFAWP project, to enable a faster operationalisation of project activities and greater impact. Knowledge sharing will be facilitated by an online platform (e.g. Facebook) where photos, videos and stories can be exchanged.

Additional information on the M&E system is provided in the draft PIM.

**Learning, Knowledge Management and Communication.** The project's knowledge management and communication will focus on facilitating knowledge sharing across the four countries of implementation and knowledge sharing from the IFAD KOIFAWP project, to guarantee a faster operationalisation of project activities and greater impact.

The project's multi-country nature will allow for experience and knowledge sharing across the different countries through the CPCU. The CPCU Project and M&E Coordinator will be responsible for passing on useful lessons learned, templates or other information to improve project implementation and results in all countries, through the M&E and knowledge management assistants.

Due to the small budget of the project, knowledge management will be resource-constrained and the project is therefore encouraged to use tools widely available and popular across the four countries for knowledge sharing, and in particular the use of Facebook and/or other social media. These tools are more likely to be adopted by project implementers and/or beneficiaries than a more formal website. Regular communication between the NDU staff in the four countries should also be encouraged.

The project will start with a study-trip in Kiribati, to learn from the experience of the KOIFAWP project put in place by IFAD. Other SSTC initiatives in partnership with neighbouring countries or other SIDS can also be envisaged.

### b. Innovation and Scaling-up

SIFWaP is itself a scaled-up programme, building on the achievements and lessons learned from the KOIFAWP model in Kiribati, and extending this to other low-income, fragile small-island states in the region. It represents the most ambitious undertaking to date to address food and water security in the small island states of the Pacific. SIFWaP will employ best-practices in community development to identify and implement interventions to address chronic food and water security challenges, in concert with household methodologies to ensure equitable participation and benefits accruing to all household members. In addition, SIFWaP will promote a combination of traditional and innovative solutions through to the non-prescriptive approach coupled with SSTC initiatives. Particular attention will be put on aspects of behavioural change and the "last mile" changes with regards to nutrition.

The decentralised multi-country implementation modality also represents an innovative response to the challenge of implementing investment projects in highly dispersed small island countries which typically incur very high management and supervision costs. This approach will maximise synergies and cross-learning between communities, islands and countries making use of improving connectivity and ICT, and the many similarities in agriculture and hydrological systems in the region and the participating communities.

Scaling up is particularly important in view of the limited menu of viable options for local production of nutritious food and community water supply. Options include the reactivation of traditional/indigenous knowledge in combination with new agricultural and water management technologies. The project will scale-up agronomic and water management options that have proven effective in atoll environments across the Pacific, and will monitor performance in order to disseminate success stories.

## N. Project Target Group Engagement and Feedback, and Grievance Redress

### a. Project Target Group Engagement and Feedback

Effective target group engagement is a core output under Component 1 and the modalities for implementing activities aimed at achieving it are outlined above. Progress towards this output will be measured in a number of ways, including through regular target group

feedback. Such feedback will be pro-actively sought by CFOs as part of Project implementation diaries they will be expected to keep. It will be a requirement for them to transmit any feedback received to the NDUs (the details on when and how to do so are provided in the draft PIM). Key milestone events/facilities during which target group feedback will be sought include:

- Community wrap-up sessions concluding the first round of community consultations.
- Validation sessions during which community plans are finalised and adopted.
- Annual stakeholder feedback/service provider evaluation workshops.
- Supervision and implementation support missions.
- Project completion report/client satisfaction surveys (to be organised by IFAD/FAO).
- Permanent suggestion boxes to be placed in a number of locations.

CDCs will be in charge of continuously soliciting feedback and discussing it with CFOs. This can be kept informal (oral feedback, to be transcribed by the committee secretary and reconfirmed as to its accuracy and authenticity by the person submitting it). Target group feedback will furthermore be compiled and made available to the MTR for follow-up.

### b. Grievance Redress

A Grievance Redress Mechanism (GRM) will be available to stakeholders, recognising the diverse spectrum of grievances that may arise. Using a range of cost-effective and user-friendly channels, the GRM will complement rather than replace existing arrangements for citizen participation and participatory governance (e.g. through the Island Councils) at decentralised level. The latter will be explained during capacity building of beneficiary communities, which will be provided with information on the GRM, and will be trained on how to appeal to relevant institutions, as well as on the mainstreaming of GESI in community matters in general. Traditional authorities will participate in these training and awareness raising sessions, and will constitute an integral part of the GRM.

Attention to local socio-cultural conditions including gender norms and traditional values will be given, to guarantee that the GRM is locally adapted and resolution oriented. The GRM will be crafted to ensure a safe modality of communicating potentially sensitive information using several methods, to be detailed in the PIM: including how to escalate grievances to the appropriate level. The GRM will be included in training/learning guidelines and modules, and in the TORs of project staff and service providers as well as of the IFAD/FAO supervision and implementation support missions. The number of grievances satisfactorily will be monitored and reported. Grievance resolution will also be a criterion for performance evaluations of staff and service providers.

## O. Implementation Plans

### a. Supervision, Mid-Term Review and Completion Plans

**Start-up and Inception**. A multi-country start-up workshop will be organised with the CPCU, NDUs, IDUs and other selected stakeholders to reinforce the implementing modalities of the Project and to introduce key processes, tools, strategies for M&E and Knowledge Management (KM). Subsequently national start-up workshops will be organised in each country, state (in the case of FSM), and island with all with all project stakeholders and implementing partners at all institutional levels.

**Supervision** will be directly by IFAD with annual supervision missions fielded by IFAD with follow-up missions as needed. Supervision will be used to assess achievements and lessons jointly, and to reflect on ways to improve implementation and impacts. The focus will be on: (i) implementation issues including financial management, procurement and reporting; (ii) outputs and outcomes based on progress against agreed indicators; (iii) joint identification of implementation challenges and solutions with implementing agencies and beneficiaries, and agreement on actions to address bottlenecks; and, (iv) ensuring compliance with loan covenants, procurement and efficient use of project funds.

*Ad hoc* **implementation support** will be provided by IFAD and FAO. Given the limited experience in implementing internationally-financed projects in three of the four countries, this support will focus mainly on project management fiduciary matters, procurement, audits and reporting. An early implementation support mission will be mobilised within the first 3-6 months of project effectiveness.

These missions offer an opportunity to assess achievements and lessons jointly, to review innovations, and to reflect on improvement measures. Missions will therefore be an integral part of the KM cycle, with mission members playing a supportive and coaching role. The mission reports will also be used as a basis for the 6-monthly reporting to GAFSP.

**Mid-Term Review** (MTR). As a six-year programme, a MTR will be undertaken after three years of implementation. The MTR will be the responsibility of the Implementing Agencies with support from IFAD, FAO and consultants. The MTR will: (i) assess the results, efficiency and effectiveness of the project; (ii) identify key lessons learnt and good practices; (iii) review the institutional arrangements; (iv) provide recommendations for improved performance and impact; and (v) based on these assessments, provide recommendations for the distribution of the remaining unallocated/un-disbursed project funds. Specific issues to be addressed by the MTR include the following:

- Overall project performance and performance of partners.
- Best performing models and opportunities for scaling up.
- Linkages and synergies between the three components.
- Role and impact of the multi-stakeholder platforms.
- Performance of the CPCU, NDUs and IDUs and of key implementation partners, including reporting, disbursement targets, implementation schedule and resolving implementation issues.
- Sustainability - issues and likelihood of achieving sustainable results.

During the final six months of the Project the four participating Governments, in collaboration with IFAD will undertake a **Project Completion Review** (PCR) in order to report on the results, impacts and lessons learned. Collection of data for the PCR will be undertaken after the last supervision mission. It will include collection of data for the end-line survey as well as for an *ex-post* financial and economic analysis. The PCR will be finalised before the Project closing date, which will be six months after completion.

As part of the completion activities, a beneficiary **impact and outcome assessment** will be undertaken to inform the PCR. The impact assessment (IA) will also be carried out as part of the M&E and KM approach for the Project. The IA will include the undertaking of baseline, mid-line and end-line surveys, all of which have been allocated dedicated budget lines. Annual Outcome Surveys may also be undertaken each year after MTR and will be financed by SIFWaP.

**Annex 1: Logframe – Small Islands Food and Water project (SIFWaP)**

All indicators will be disaggregated by sex, age and disability status

| Hierarchy | Indicators | | | | | Means of Verification | | | Assumptions |
|---|---|---|---|---|---|---|---|---|---|
| | Name | Base-line | Yr1 | Mid-Term | End Target | Source | Freq. | Who | |
| **Outreach** | **1 Number of household member beneficiaries reached** [a] | | | | | | | | Implementation capacity is in place.<br><br>Financing gap is met.<br><br>No major implementation delays. |
| | Total - number | 0 | 12,500 | 50,000 | 50,000 | Monthly activity reports | Bi-yearly | CFOs | |
| | Females - Number | 0 | 6,250 | 25,000 | 25,000 | Ibid | ibid | ibid | |
| | Young - Number | 0 | 3,125 | 12,500 | 12,500 | Ibid | ibid | ibid | |
| | Received CSA support | 0 | 0 | 25,000 | 37,500 | Ibid | ibid | ibid | |
| | Have been helped to cope with climate change [a] | 0 | 0 | 18,750 | 25,000 | Ibid | ibid | ibid | |
| | **1.a Corresponding number of households reached** | | | | | | | | |
| | Total households | 0 | 2,000 | 8,000 | 8,000 | Ibid | ibid | ibid | |
| | Women-headed households | 0 | 500 | 2,000 | 2,000 | Ibid | ibid | ibid | |
| | **1.b Estimated corresponding total number of household members** | | | | | | | | |
| | Household members | 0 | 12,000 | 50,000 | 50,000 | Calculated | ibid | ibid | |
| **Goal**:<br>People living in the beneficiary communities have access to sustainable and healthy diets. | Food Insecurity Experience Index<br>**GAFSP Tier 1 Indicator** | NA | NA | NA | NA | Baseline, mid-line and end-line survey | 1,3,6 | RIA and PMU | Sustainable food production. |
| **Development Objective**:<br>To improve food, nutrition and water security and livelihood opportunities in the small island communities of these countries. | Percent of women reporting minimum dietary diversity<br>**GAFSP Tier 1 Indicator** | NA | NA | NA | NA | Baseline, mid-line and end-line | 1,3,6 | RIA and PMU | Successful engagement of communities in food and nutrition production.<br>Demand for nutritious food products. |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Component 1:** Communities are engaged in activities to promote food, nutrition and water security | No of individuals engaged in nutrition education (disaggregated by gender and age) | NA | NA | NA | NA | Baseline, mid-line and end-line, using COI guidelines | 1,3,6 | RIA and PMU | Willingness to grow food for nutritious content, despite ease of buying food with low-nutrient contents. |
| | **CI SF.2.1**: Number and households satisfied with project-supported service | 0 | NA | 7,200 | 7,200 | Baseline, mid-line and end-line, using COI guidelines | 1,3,6 | RIA and PMU | Inclusive community planning. Transparent processes for allocating project resources. |
| | Percentage of Households | 0 | NA | 90% | 90% | | | | |
| | Total number of household members | 0 | NA | 45,000 | 45,000 | | | | |
| | **CI SF.2.2:** Number of households reporting they can influence decision-making of local authorities and project-supported service providers | 0 | NA | 6,000 | 6,000 | Baseline, mid-line and end-line, using COI guidelines | 1,3,6 | RIA and PMU | Inclusive community planning |
| | Percentage of Households | 0 | NA | 75% | 75% | | | | |
| | Total number of household members | 0 | NA | 37,500 | 37,500 | | | | |
| <u>Sub-comp 1.1:</u> Community Committees are operational and communities prepared Community Development Plans | Number of Community Committees set up with at least 20% of youth members and 40% of women members | 0 | 0 | 130 | 200 | Monthly activity reports | Bi-yearly | CFOs | Willingness to engage women and youth in CDD process. Communities agree on priorities |
| | Community plans drafted and agreed upon by the community | 0 | 0 | 130 | 200 | Monthly activity reports | Bi-yearly | CFOs | |
| <u>Sub-comp 1.2:</u> Communities are trained on food and nutrition | Persons receiving capacity development (number of people) [b] **GAFSP Indicator** [c] (disaggregated by gender and age) | 0 | 2,000 | 4,000 | 5,000 | Monthly activity reports + NDUs reporting | Bi-yearly | CFOs and NDU | Willingness to produce food. Access to adequate trainers for training communities. |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | People receiving improved nutrition services and products (number of people) [d] **GAFSP Core Indicator** (disaggregated by gender and age) | 0 | 2,000 | 4,000 | 5,000 | Monthly activity reports | Bi-yearly | CFOs | |
| **Component 2** Communities, groups and individuals invest in local production of nutritious foods and improved water supply. | Number of persons/households reporting an increase in production **(CI 1.2.4)** | 0 | 0 | 2,400 | 6,000 | Baseline, mid-line and end-line, using COI guidelines | 1,3,6 | RIA and PMU | Willingness to invest in food production. Training equips producers with adequate knowledge to deal with difficult local conditions. |
| | Percentage of Households | 0 | 0% | 30% | 75% | | | | |
| | Total number of household members | 0 | 0 | 15,000 | 37,500 | | | | |
| | Number of persons/households reporting a significant reduction in the time spent for collecting water **(CI 3.2.3)** | 0 | 0 | 4,000 | 4,800 | | | | Operation and maintenance of infrastructure is in place. |
| | Percentage of Households | 0 | 0% | 50% | 60% | | | | |
| | Total number of household members | 0 | 0 | 25,000 | 30,000 | | | | |
| Sub-comp 2.1: Private investments to increase production of nutritious foods for home consumption and/or sale are supported. | Number of smallholders receiving productivity enhancement support [e] **GAFSP Core Indicator** (disaggregated by gender and age) | 0 | 0 | 2,000 | 5,000 | Monthly activity reports | Bi-yearly | CFOs | Matching grants scheme operational. |
| Sub-comp 2.2: Water supply systems and other infrastructure in rural communities are installed and maintained. | Number of public investments and/or infrastructures set up | 0 | 50 | 150 | 200 | Monthly activity reports | Bi-yearly | CFOs | Communities agree on priority investments. Successful procurement of materials and |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | adequate labour for set-up. |
| **Component 3** Well-defined investment plans for food, nutrition and water security are in place in each country. | Number of existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment **(Policy 3)** | 0 | 0 | 2 | 4 | Ratified documents | Ongoing | FAO | Political interest in ratifying the NAIP. Adequate representation of stakeholders in the policy process. |
| Sub-comp 3.1: National Agricultural Investment Plans are prepared for each country. | Number of substantive deliverables on food security processes completed (No.) **GAFSP Core Indicator** | 0 | 0 | 5 | 10 | Documents prepared | Ongoing | FAO | Stakeholder's ownership of the policy development process. |

[a] This captures both IFAD outreach indicators, Number of persons receiving services promoted or supported by the project; and **GAFSP Tier 2 indicator 1,** Number of beneficiaries reached, gender disaggregated, percentage who have been helped to cope with impact of climate change (number of people), including people receiving benefits from the project, and disaggregated by gender and those receiving CSA support.

[b] Agricultural and non-agricultural rural training and capacity building support provided. Distinguishes between individual producers/household members, civil society, organization staff, and government officials. This indicator overlaps with IFAD core indicator Number of persons trained in production practices and/or technologies CI 1.1.4). The project will also report on this indicator.

[c] Gender disaggregated and age disaggregated. This includes: (i) Number of people who received nutrition counselling/education, recipients of ready-to-use-therapeutic foods, bio-fortified foods, and vitamin A and micronutrient supplements; and (ii) Number of people receiving extension support for nutrition-relevant techniques (e.g., homestead gardens, Farmer Field School support, etc.). This indicator overlaps with IFAD core indicator Number of persons/households provided with targeted support to improve their nutrition (CI 1.1.8). The project will also report on this indicator.

[d] Includes Number of end-users who directly participated in project activities. Includes technology/technique adoptees, water users with improved services, those who had land rights clarified, people offered new financing/risk management services. Includes the number of producers using CSA approaches. This indicator overlaps with IFAD Core Indicators. Number of rural producers accessing production inputs and/or technological packages (CI 1.1.3). The project will also report on this indicator.

[e] Deliverables include policy studies, strategies and plans, best practices, and lessons learned, among others. This indicator overlaps with the IFAD indicator: Number of policy-relevant knowledge products completed (Policy 1). The project will report on this too.

## Annex 2: Theory of Change

The Theory of Change is founded on assumptions that: (i) building local capabilities for higher, climate-smart production of nutritious foods is economically and socially attractive for target communities as it will contribute to strengthening their resilience to future, climate related, shocks.; and (ii) collaborative efforts between public and private actors will result in improved local food systems and supply chains, contributing to improved nutrition and health outcomes. Such capacity building and multi-stakeholder efforts need to be backed up by investment in production of nutritious foods, in access to water and markets, and in innovative approaches to behavioural and "last mile" change with regards to the importance of dietary diversity and healthy diets. This foundational premise is based on an expert-driven problem analysis, which identifies difficult agricultural conditions, including poor soils, unreliable access to water, lack of access to planting materials, limited local knowledge of technical solutions, as well as gender and youth participation as key challenges; all exacerbated by climate change, and contributing to deteriorating nutrition and health.

Component 2 will therefore focus on the hard investments for food, nutrition and water security and the introduction of good agricultural practices, with the objective of improving household's resilience. It presumes that training in improved practices for producing nutritious crops that can be cultivated at small scale in backyard gardens, a higher level of nutrition awareness, and support to island or community nurseries will be sufficient for increasing household food production and improving dietary habits and health outcomes. The component will provide training, seed capital and technical assistance to promote the use of improved, more sustainable technologies (e.g. for composting, integrated farming and renewable energy) that will create and sustain jobs, generate surpluses and improve the health of women and children. This will be supported by interventions under Component 1 to raise awareness and knowledge about nutrition and health. The direct benefits expected to be generated by Component 2 investments are summarised in the following table. Among the indirect benefits may be improvement in the local environment and stabilising out-migration to the country's capital or main towns.

| **Community/Public Good Activities** | |
|---|---|
| **Indicative Activities** | **Expected Benefits** |
| • Fresh produce markets, fish markets, handicraft markets | • Increased cash incomes for beneficiaries<br>• Improved access to nutritious foods for island communities |
| • Transport infrastructure: feeder roads | • Improved access to markets |
| • Water supply systems: wells, rainwater catchment, solar distillation, desalination | • Increased water security and improved health |
| • Community level schemes for composting, cold storage, nurseries etc. | • Increased agricultural productivity and food availability |
| • School/community gardens | • Improved health and nutrition for school children<br>• Better knowledge about home gardening practices |
| • Community fisheries management schemes | • Sustainable management of marine resources for improved food and nutrition security |
| • Pest and invasive species management | • More sustainable agricultural production and food supply |
| • Solar street lights, solar mini/micro-grids, solar Wi-Fi___33 access points | • Reduced emissions and cheaper electricity |

| Private Good Activities | |
|---|---|
| **Indicative Activities** | **Expected Benefits** |
| • Composting equipment<br>• Nurseries/seed production inputs and equipment | • Increased agricultural productivity and food availability |
| • Small livestock and equipment | • Increased supply of animal products for local consumption and sale |
| • Fishing, aquaculture, seaweed and equipment | • Increased supply of marine products for sale and local consumption |
| • Home gardens, hydroponic | • Increased agricultural productivity and food availability |
| • Root crops | • Increased supply of staple foods and reduced dependence on imported staples |
| • Storage facilities: cold-stores, freezers | • Reduced food loss and waste, improved market access |
| • Tree crop replanting: coconuts, breadfruit, bananas | • Improved supply of food and cash crops in the long term |
| • Agro-processing, food preservation: virgin coconut oil, breadfruit flour, banana chips, coconut sap sugar, pandanus juice etc. | • Increased cash incomes for isolated rural communities |
| • Solar-powered equipment such as poultry incubators, driers and pumps<br>• Household scale biogas digesters | • Reduced emissions and lower energy costs |
| • Non-farm income generating enterprises, e.g. furniture making, brick manufacture | • Increased household incomes available for purchase of nutritious foods |

A key assumption is that households will have continued access to required inputs, that agriculture's water and labour requirements are not onerous (especially on women), or can be improved through water harvesting, and that women and youth will be keen to participate to the extent that diets and health can be improved, and that surplus produce can be sold for a good return on labour, or that they may be gainfully employed in post-harvest value-addition.

There is a degree of flexibility in terms of the investments that can be undertaken by communities and private actors, as long as these investments directly contribute to food, nutrition and water security through a combination of sensitisation and awareness-raising in Component 1 and agricultural productivity enhancement and/or income-generating activities in Component 2. SIFWaP will also build on innovative solutions which have been successfully implemented in other SIDS.

The Theory of Change is also founded on the conviction that support to isolated, remote islands must first involve the equal participation of men, women and youths in determining their priority investments that address their most significant development challenges in food/nutrition and water security. This will ensure that the three gender dimensions of economic empowerment, equal voice, and balanced workloads are addressed up front. Component 1 therefore supports a participatory and inclusive prioritisation process. SIFWaP assumes that, rather than rely solely on Island Councils or village elders, an inclusive priority setting approach will ensure responsiveness to challenges shared among a diverse range of households, including the most vulnerable, as well as women, youth and people with disability (PWDs). Under the local cultural and social context, inclusive priority setting requires that

the voices of women, youth and PWDs, in particular, are given a dedicated and safe space within broad community consultations.

The dialogue and facilitation undertaken with communities also aims to strengthen local capabilities in planning and implementing collective actions, as opposed to a project-driven approach. The assumption is that training Island Facilitators and CFOs will enable them to contribute to effective and inclusive community planning.

Community-driven planning must not be directive, and may identify priority areas which SIFWaP is not be able to support. In such instances, SIFWaP staff and CFOs will link communities with other relevant programmes and initiatives, and will aim to strengthen local advocacy and resource mobilisation. This implies that inclusive community development planning can offer benefits beyond the project investment domains.

Sub-component 1.2 on nutrition awareness will help to ensure that increased household production of fruits, vegetables, poultry, and root crops translates into improved diets as a result of improved awareness about food, nutrition and health, including knowledge about the nutritional attributes of foods, dietary diversity, food preparation and handling. For households that are also engaged in income/livelihood activities, it will provide income for purchase of nutritious foods from local markets as well as agriculture inputs to facilitate production and access to nutritious foods as well as the skills to prepare, process and preserve them safely.

Component 3 is based on the premise that long-term sustainability of these investments can only be guaranteed if National governments also adhere to the same convictions, create enabling environments and complement these activities with investments guided by an overarching investment plan. Given that there are no current national nutrition strategies, it will be imperative that NAIPs are made nutrition sensitive.

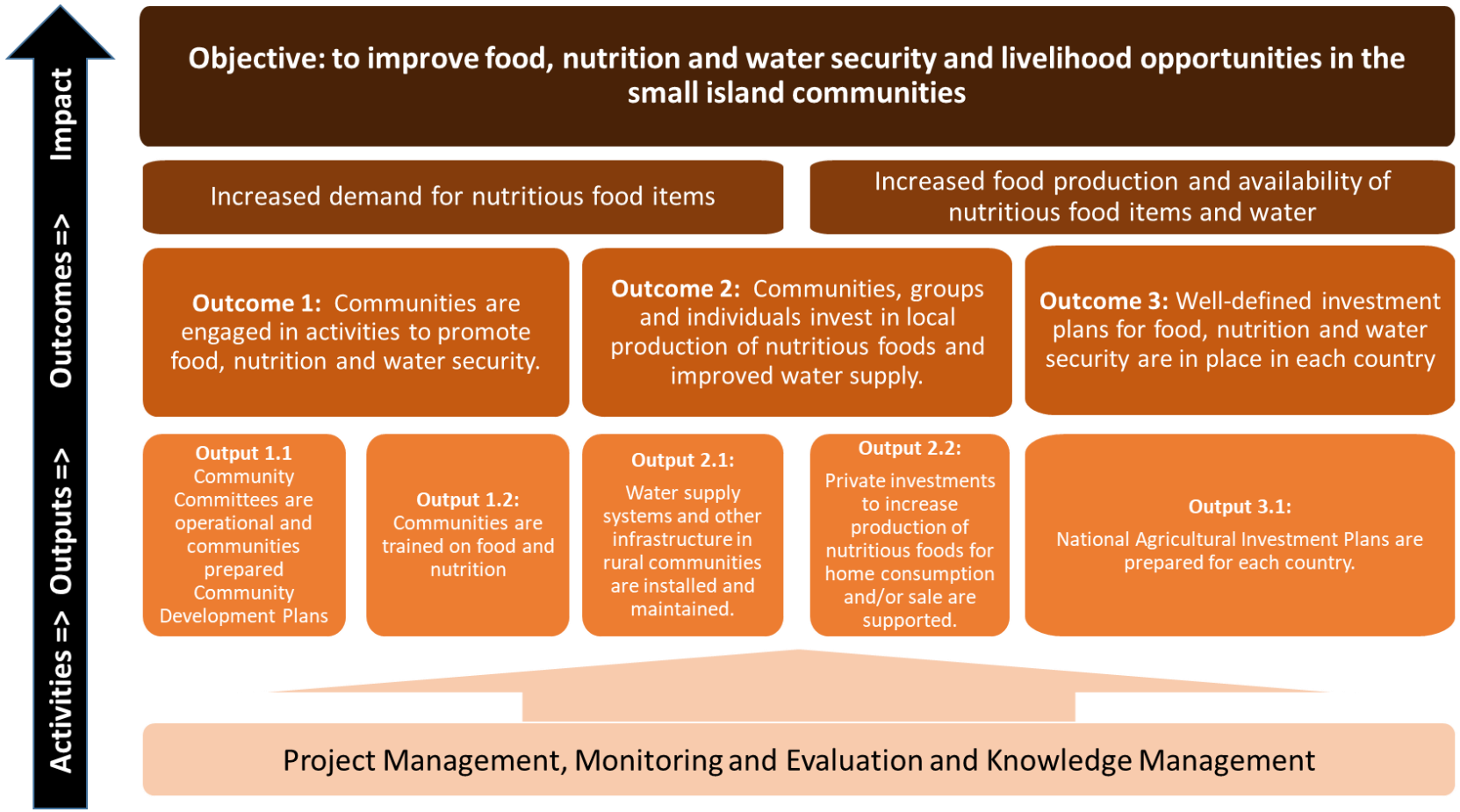
Based on this overall Theory of Change, SIFWaP seeks to provide technical and financing support as follows:

**Component 1** focuses on community planning and awareness-raising to support food production, nutrition knowledge/awareness and water resource management. By engaging communities, this component will ensure the relevance, ownership and sustainability of the investments undertaken in Component 2. In addition, the community engagement activities and trainings will ensure that indigenous knowledge on local foods is revived, and that households are better equipped to prepare diverse, healthy and nutritious diets.

**Component 2** will focus on the hard investments for food, nutrition and water security. The component will enable private investments in food, nutrition and water security through matching grant mechanisms as well as community-based public investments.

**Component 3** focuses on the enabling environment for food, nutrition and water security, to facilitate policies and programmes conducive to these objectives over the long term. This component includes the development of the National Agriculture Investment Plans (NAIPs), in partnership with Farmers' Organisations when and where feasible.

Implementation of the three components will result in enhanced ability of small island communities to successfully plan and implement investments resulting in better, food security, nutrition/health and access to clean water, which ultimately lead to medium/long term improvements in living standards, characterised by healthy and sustainable livelihoods.


Activities => Outputs => Outcomes => Impact
Objective: to improve food, nutrition and water security and livelihood opportunities in the small island communities
Increased demand for nutritious food items
Increased food production and availability of nutritious food items and water
Outcome 1: Communities are engaged in activities to promote food, nutrition and water security.
Outcome 2: Communities, groups and individuals invest in local production of nutritious foods and improved water supply.
Outcome 3: Well-defined investment plans for food, nutrition and water security are in place in each country
Output 1.1 Community Committees are operational and communities prepared Community Development Plans
Output 1.2: Communities are trained on food and nutrition
Output 2.1: Water supply systems and other infrastructure in rural communities are installed and maintained.
Output 2.2: Private investments to increase production of nutritious foods for home consumption and/or sale are supported.
Output 3.1: National Agricultural Investment Plans are prepared for each country.
Project Management, Monitoring and Evaluation and Knowledge Management

## Annex 3: Project Costs and Financing: Detailed Cost Tables

This Annex presents the methodology and results used to estimate project costs and financing. The first part of the Annex presents the assumptions regarding the project starting date, duration, prices, exchange rate, physical and price contingencies, expense categories and taxes. The second part summarises the resulting costs and financing estimates.

### Hypothesis for Calculating Project Costs

Project costs include both investment costs and recurrent costs, both from cash contributions and in-kind contributions. The project costs are based on the following hypothesis:

- The Project will be presented at the IFAD board in September 2021. It is expected that project activities will start in 2022 for a project duration of six years.
- The costs presented in the tables are indicative and should be considered as envelopes per component, sub-component and activity. Even when specific quantities and unit costs are specified, the envelope for the window should be considered first and foremost. The detailed planning of project activities and budget will take place during project implementation.
- The unit costs are inclusive of all taxes, including VAT and import duties where applicable.
- Unit costs are based on observed market prices, including taxes which are a cost of the project.
- The currencies used to estimate costs are the Australian Dollar (AUD) and the United States Dollar (US$). The Australian Dollar is the currency in Kiribati and Tuvalu, while the United States Dollar is the currency used in the FSM and RMI.
- Price contingencies were added in order to account for local and foreign inflation. The price contingencies are automatically included by the software Costab on the basis of specified parameters. For both the AUD and the US$, a price contingency rate of 2% per year was used, on the basis of World Bank data on the Manufactures Unit Value Index projecting inflation rates of 2% from 2021 onwards.
- The exchange rate applying at the time of the design, in March 2021, was AUD 1.29 AUD per US$. While this rate is expected to fluctuate during the implementation timeframe, it is difficult to make a forecast of exchange rates. Therefore, the exchange rate of 1.29 AUD per US$ was used for the duration of the project.
- Expenditure categories were defined on the basis of the IFAD standard expenditure categories. Table 1 below presents the different expenditure categories, physical contingencies, and the percentage of foreign exchange, based mainly on previous project experience.

Table 1: Expenditure Categories

| | Physical contingencies | Taxes | Foreign exchange |
|---|---|---|---|
| Equipment and materials | 0% | NA | NA |
| Grants and subsidies | 0% | NA | NA |
| Consultancies | | NA | NA |
| Studies | 0% | NA | NA |
| Technical assistance | 0% | NA | NA |
| Workshops | 0% | NA | NA |
| Training | 0% | NA | NA |
| Operating costs | 0% | NA | NA |
| Salaries and allowances | 0% | NA | NA |

Project costs were prepared in one single Costab for all four countries, in order to reflect the fact that SIFWaP is one project, with a common structure and management framework. One caveat to this approach is that it was not possible to enter taxes and foreign exchange percentages in the expenditure categories, because these differ between countries.

## Project Costs and Financing

Total project costs are estimated at **US$ 19.29 million** over the six-year implementation period. Price contingencies amount to US$ 0.50 million which corresponds to 3% of base costs. There are no physical contingencies.

Table 2: Project Costs by Component – Total Including Contingencies (US$'000)

North Pacific
Small Islands Food and Water Project (SIFWaP)
**Components Project Cost Summary**

| | (AUD '000) | | | (US$ '000) | | |
|---|---|---|---|---|---|---|
| | Local | Foreign | Total | Local | Foreign | Total |
| **A. Component 1: Community Engagement** | | | | | | |
| Sub-Component 1.1: Community Consultations and Mobilisation | 4,289 | 26 | 4,315 | 3,324 | 20 | 3,345 |
| Sub-Component 1.2: Nutrition and Health Awareness | 657 | - | 657 | 509 | - | 509 |
| **Subtotal** | 4,945 | 26 | 4,972 | 3,833 | 20 | 3,854 |
| **B. Component 2: Investments in Food, Nutrition and Water Security** | | | | | | |
| Sub-Component 2.1: Private Goods Investments | 3,321 | - | 3,321 | 2,574 | - | 2,574 |
| Sub-Component 2.2: Public Goods Investments | 9,999 | - | 9,999 | 7,751 | - | 7,751 |
| **Subtotal** | 13,320 | - | 13,320 | 10,325 | - | 10,325 |
| C. Component 3: Enabling Policy Framework | 645 | - | 645 | 500 | - | 500 |
| **D. Component 4: Project Coordination and Management** | | | | | | |
| Sub-Component 4.1: Project Coordination and Capacity Building | 1,818 | 13 | 1,831 | 1,410 | 10 | 1,420 |
| Sub-Component 4.2: Project Management | 3,089 | 52 | 3,140 | 2,394 | 40 | 2,434 |
| Sub-Component 4.3: M&E and Knowledge Management | 333 | - | 333 | 258 | - | 258 |
| **Subtotal** | 5,240 | 65 | 5,304 | 4,062 | 50 | 4,112 |
| **Total BASELINE COSTS** | 24,150 | 91 | 24,241 | 18,721 | 70 | 18,791 |
| Physical Contingencies | - | - | - | - | - | - |
| Price Contingencies | 636 | 3 | 640 | 493 | 3 | 496 |
| **Total PROJECT COSTS** | 24,786 | 94 | 24,880 | 19,214 | 73 | 19,287 |

Project Financing/Co-Financing Strategy and Plan

The project will be financed by a GAFSP grant of US$ 11.65 million (60% of project costs); a financing gap of US$ 3.47 million (18% of project costs); beneficiaries' in-kind contributions of US$ 2.34 million (12% of project costs); and governments in-kind contributions of US$ 1.83 million (9% of project costs). Table 9 below summarises Component costs by financier. The GAFSP costs in the table do not include the PPG of US$ 350,000, which has already been allocated.

In the event that the financing gap cannot be met, the project will only be able to reach 5,200 beneficiary households. The target of 8,000 households was estimated on the assumption that the financing gap would be filled at some point during the implementation period.

**Beneficiary contributions** will be in-kind contributions to income generating activities in Component 2.1 and to public investments in Component 2.2. Government contributions will be both in cash and in kind. In cash contributions are only in Sub-Component 2.2: the Governments will be expected to cover 10% of cash investment costs (about 8% of total costs, assuming that in kind contributions correspond to 20% of the investment) either through direct financing or tax exemptions. The remainder of government counterpart financing will be in kind: in Sub-Component 1.1 (extension services and other technical support); in Component 3 (travel costs and/or workshop costs for stakeholders' meetings); and in Component 4 (travel costs, social security contributions and utilities and communication costs).

Table 3: Components by Financier

| | GAFSP | % | Gap | % | Beneficiaries | % | Gov., FSM | % | Gov., Kiribati | % | Gov., RMI | % | Gov., Tuvalu | % | Total, governments | % | Total | % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. Component 1: Community Engagement | | | | | | | | | | | | | | | | | | |
| Sub-Component 1.1: Community Consultations and Mobilisation | 2,347 | 20% | 867 | 25% | - | 0% | 79 | 15% | 79 | 15% | 79 | 18% | 79 | 21% | 316 | 17% | 3,529 | 18% |
| Sub-Component 1.2: Nutrition and Health Awareness | 373 | 3% | 157 | 5% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | 530 | 3% |
| ***Subtotal*** | ***2,720*** | ***23%*** | ***1,023*** | ***30%*** | ***-*** | ***0%*** | ***79*** | ***15%*** | ***79*** | ***15%*** | ***79*** | ***18%*** | ***79*** | ***21%*** | 316 | ***17%*** | ***4,059*** | ***21%*** |
| B. Component 2: Investments in Food, Nutrition and Water Securi | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% |
| Sub-Component 2.1: Private Goods Investments | 1,039 | 9% | 559 | 16% | 976 | 42% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | 2,574 | 13% |
| Sub-Component 2.2: Public Goods Investments | 3,916 | 34% | 1,885 | 54% | 1,360 | 58% | 211 | 41% | 211 | 41% | 132 | 31% | 72 | 19% | 627 | 34% | 7,788 | 40% |
| ***Subtotal*** | ***4,955*** | ***43%*** | ***2,445*** | ***70%*** | ***2,336*** | ***100%*** | ***211*** | ***41%*** | ***211*** | ***41%*** | ***132*** | ***31%*** | ***72*** | ***19%*** | 627 | ***34%*** | ***10,362*** | ***54%*** |
| C. Component 3: Enabling Policy Framework | 400 | 3% | - | 0% | - | 0% | 25 | 5% | 25 | 5% | 25 | 6% | 25 | 7% | 100 | 5% | 500 | 3% |
| D. Component 4: Project Coordination and Management | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% |
| Sub-Component 4.1: Project Coordination and Capacity Building | 1,507 | 13% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | 1,507 | 8% |
| Sub-Component 4.2: Project Management | 1,870 | 16% | - | 0% | - | 0% | 179 | 35% | 179 | 35% | 179 | 41% | 179 | 48% | 717 | 39% | 2,587 | 13% |
| Sub-Component 4.3: M&E and Knowledge Management | 202 | 2% | - | 0% | - | 0% | 18 | 3% | 18 | 3% | 18 | 4% | 18 | 5% | 70 | 4% | 272 | 1% |
| ***Subtotal*** | ***3,579*** | ***31%*** | ***-*** | ***0%*** | ***-*** | ***0%*** | ***197*** | ***38%*** | ***197*** | ***38%*** | ***197*** | ***45%*** | ***197*** | ***53%*** | 787 | ***43%*** | ***4,366*** | ***23%*** |
| **Total PROJECT COSTS** | **11,653** | **60%** | **3,468** | **18%** | **2,336** | **12%** | **512** | **3%** | **512** | **3%** | **433** | **2%** | **373** | **2%** | **1,830** | **9%** | **19,287** | **100%** |

## Total Country Allocations.

The indicative country allocations for the GAFSP grant, are US$ 3.5 million for FSM, US$ 3.5 million for Kiribati, US$$ 2.6 million for RMI, US$$ 1.9 million for Tuvalu. The country allocations were calculated based on the populations of each country, while considering a higher proportion for Tuvalu whose population represents only 4% of the aggregate population of the four countries.

Table 4: Total Country allocation of GAFSP Grant

| Allocation per country | US$ (`000) | % of total GAFSP grant |
|---|---|---|
| **FSM** | 3,564 | 30% |
| **Kiribati** | 3,554 | 30% |
| **RMI** | 2,628 | 23% |
| **Tuvalu** | 1,908 | 17% |
| **TOTAL** | **11,653** | **100%** |

These amounts represent the portion of the GAFSP grant which will be used for investments and activities in each respective countries, as well as the costs of the Central Project Coordination Unit (CPCU), which will be managed by IFAD on behalf of the recipient countries, and the budget for FAO who will implement a part of the Policy component.

## Eligible Country Allocations.

The indicative *eligible* country allocations of the GAFSP grant are the amounts each country is eligible to receive for direct implementation of activities, therefore excluding the costs of the PPG, the CPCU and FAO. These amount to US$ 3 million for FSM, US$ 3 million for Kiribati, US$ 2.1 million for RMI, US$ 1.4 million for Tuvalu, as detailed in below.

Table 5: Country Allocation of GAFSP Grant

| Implementing agency | US$ (`000) | % of total GAFSP grant |
|---|---|---|
| FSM NDU | 3,037 | 25% |
| Kiribati NDU | 3,027 | 25% |
| RMI NDU | 2,101 | 18% |
| Tuvalu NDU | 1,381 | 12% |
| PPG | 350 | 3% |
| CPCU | 1,708 | 14% |
| FAO (Component 3) | 400 | 3% |
| **TOTAL** | 12,003 | 100% |

**Allocation by Expenditure Categories.** Costs by Expenditure Categories are shown in Table 12 for all financiers, and in Table 14**Error! Reference source not found.** for GAFSP grant. Investment costs account for 67% of project costs, and recurrent costs account for 33% of project costs.

Table 6: Project Costs by Expenditure Account and Financier (US$'000)

| | GAFSP | % | Gap | % | Beneficiaries | % | Gov., FSM | % | Gov., Kiribati | % | Gov., RMI | % | Gov., Tuvalu | % | Total | % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **I. Investment Costs** | | | | | | | | | | | | | | | | |
| A. Equipment and Materials | 131 | 1% | 15 | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | 146 | 1% |
| B. Grant and subsidies | 4,134 | 35% | 2,226 | 64% | 2,336 | 100% | 190 | 37% | 190 | 37% | 112 | 26% | 52 | 14% | 9,240 | 48% |
| D. Consultancies | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% |
| Studies | 277 | 2% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | - | 0% | 277 | 1% |
| Technical Assistance | 998 | 9% | 308 | 9% | - | 0% | 15 | 3% | 15 | 3% | 15 | 3% | 15 | 4% | 1,365 | 7% |
| ***Subtotal*** | ***1,274*** | 11% | ***308*** | 9% | **-** | 0% | ***15*** | 3% | ***15*** | 3% | ***15*** | 3% | ***15*** | 4% | ***1,642*** | 9% |
| E. Workshops | 672 | 6% | 51 | 1% | - | 0% | 10 | 2% | 10 | 2% | 10 | 2% | 10 | 3% | 763 | 4% |
| F. Training | 677 | 6% | 244 | 7% | - | 0% | 54 | 10% | 54 | 10% | 54 | 12% | 54 | 14% | 1,136 | 6% |
| ***Total Investment Costs*** | ***6,889*** | 59% | ***2,844*** | 82% | ***2,336*** | 100% | ***269*** | 53% | ***269*** | 53% | ***190*** | 44% | ***130*** | 35% | ***12,927*** | 67% |
| **II. Recurrent Costs** | | | | | | | | | | | | | | | | |
| A. Operating costs | 240 | 2% | 129 | 4% | - | 0% | 113 | 22% | 113 | 22% | 113 | 26% | 113 | 30% | 822 | 4% |
| B. Salaries and allowances | 4,524 | 39% | ***495*** | 14% | **-** | 0% | ***130*** | 25% | ***130*** | 25% | ***130*** | 30% | ***130*** | 35% | ***5,538*** | 29% |
| ***Total Recurrent Costs*** | ***4,764*** | 41% | ***624*** | 18% | **-** | 0% | ***243*** | 47% | ***243*** | 47% | ***243*** | 56% | ***243*** | 65% | ***6,360*** | 33% |
| **TOTAL** | **11,653** | 100% | **3,468** | 100% | **2,336** | 100% | **512** | 100% | **512** | 100% | **433** | 100% | **373** | 100% | **19,287** | 100% |

Table 7: Project Costs by Expenditure Account and Financier (US$'000)

| | GAFSP FSM | | GAFSP Kiribati | | GAFSP RMI | | GAFSP Tuvalu | | GAFSP other | | GAFSP FAO TA | | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | |
| **I. Investment Costs** | | | | | | | | | | | | | |
| A. Equipment and Materials | 31 | 20.9 | 31 | 20.9 | 26 | 18.1 | 23 | 15.8 | 21 | 14.3 | - | - | |
| B. Grant and subsidies | 1,447 | 15.7 | 1,447 | 15.7 | 847 | 9.2 | 393 | 4.3 | - | - | - | - | |
| **C. Consultancies** | | | | | | | | | | | | | |
| | 51 | 18.4 | 51 | 18.4 | 51 | 18.4 | 51 | 18.4 | 73 | 26.3 | - | - | |
| | 226 | 16.5 | 226 | 16.5 | 143 | 10.5 | 80 | 5.8 | 84 | 6.2 | 240 | 17.6 | |
| **Subtotal** | 277 | 16.8 | 277 | 16.8 | 194 | 11.8 | 131 | 8.0 | 157 | 9.5 | 240 | 14.6 | |
| D. Workshops | 137 | 17.9 | 127 | 16.6 | 123 | 16.1 | 113 | 14.8 | 13 | 1.7 | 160 | 21.0 | |
| E. Training | 184 | 16.2 | 184 | 16.2 | 118 | 10.4 | 68 | 6.0 | 124 | 10.9 | - | - | |
| **Total Investment Costs** | 2,075 | 16.0 | 2,064 | 16.0 | 1,309 | 10.1 | 727 | 5.6 | 314 | 2.4 | 400 | 3.1 | |
| **II. Recurrent Costs** | | | | | | | | | | | | | |
| A. Operating costs | 85 | 10.4 | 85 | 10.4 | 49 | 5.9 | 21 | 2.6 | - | - | - | - | |
| **Tota** B. Salaries and allowances | 877 | 15.8 | 877 | 15.8 | 743 | 13.4 | 632 | 11.4 | 1,394 | 25.2 | - | - | |
| **Total Recurrent Costs** | 962 | 15.1 | 962 | 15.1 | 792 | 12.5 | 653 | 10.3 | 1,394 | 21.9 | - | - | |
| **Total PROJECT COSTS** | 3,037 | 15.7 | 3,027 | 15.7 | 2,101 | 10.9 | 1,381 | 7.2 | 1,708 | 8.9 | 400 | 2.1 | |

Table 8: Component by Financier, thousands AUD

(AUD '000)

| | GAFSP FSM | | GAFSP Kiribati | | GAFSP RMI | | GAFSP Tuvalu | | GAFSP other | | GAFSP FAO TA | | Financing gap | | Beneficiaries | | Government FSM | | Government Kiribati | | Governemnt RMI | | Government Tuvalu | | The Government | | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | | Amount | % |
| **A. Component 1: Community Engagement** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sub-Component 1.1: Community Consultations and Mobilisation | 973 | 21.4 | 960 | 21.1 | 669 | 14.7 | 426 | 9.4 | - | - | - | - | 1,118 | 24.6 | - | - | 102 | 2.2 | 102 | 2.2 | 102 | 2.2 | 102 | 2.2 | -0 | -0.0 | 4,552 | 18.3 |
| Sub-Component 1.2: Nutrition and Health Awareness | 158 | 23.1 | 158 | 23.1 | 104 | 15.2 | 62 | 9.1 | - | - | - | - | 202 | 29.6 | - | - | - | - | - | - | - | - | - | - | 0 | - | 684 | 2.7 |
| **Subtotal** | 1,131 | 21.6 | 1,118 | 21.3 | 772 | 14.8 | 488 | 9.3 | - | - | - | - | 1,320 | 25.2 | - | - | 102 | 1.9 | 102 | 1.9 | 102 | 1.9 | 102 | 1.9 | -0 | -0.0 | 5,236 | 21.0 |
| **B. Component 2: Investments in Food, Nutrition and Water Security** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sub-Component 2.1: Private Goods Investments | 469 | 14.1 | 469 | 14.1 | 275 | 8.3 | 127 | 3.8 | - | - | - | - | 722 | 21.7 | 1,259 | 37.9 | - | - | - | - | - | - | - | - | 0 | - | 3,321 | 13.3 |
| Sub-Component 2.2: Public Goods Investments | 1,714 | 17.1 | 1,714 | 17.1 | 1,060 | 10.5 | 563 | 5.6 | - | - | - | - | 2,432 | 24.2 | 1,754 | 17.5 | 272 | 2.7 | 272 | 2.7 | 171 | 1.7 | 93 | 0.9 | 0 | - | 10,046 | 40.4 |
| **Subtotal** | 2,184 | 16.3 | 2,184 | 16.3 | 1,334 | 10.0 | 690 | 5.2 | - | - | - | - | 3,153 | 23.6 | 3,013 | 22.5 | 272 | 2.0 | 272 | 2.0 | 171 | 1.3 | 93 | 0.7 | 0 | - | 13,367 | 53.7 |
| C. Component 3: Enabling Policy Framework | - | - | - | - | - | - | - | - | - | - | 516 | 80.0 | - | - | - | - | 32 | 5.0 | 32 | 5.0 | 32 | 5.0 | 32 | 5.0 | - | - | 645 | 2.6 |
| **D. Component 4: Project Coordination and Management** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sub-Component 4.1: Project Coordination and Capacity Building | - | - | - | - | - | - | - | - | 1,943 | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1,943 | 7.8 |
| Sub-Component 4.2: Project Management | 603 | 18.1 | 603 | 18.1 | 603 | 18.1 | 603 | 18.1 | - | - | - | - | - | - | - | - | 231 | 6.9 | 231 | 6.9 | 231 | 6.9 | 231 | 6.9 | - | - | 3,337 | 13.4 |
| Sub-Component 4.3: M&E and Knowledge Management | - | - | - | - | - | - | - | - | 260 | 74.1 | - | - | - | - | - | - | 23 | 6.5 | 23 | 6.5 | 23 | 6.5 | 23 | 6.5 | - | - | 351 | 1.4 |
| **Subtotal** | 603 | 10.7 | 603 | 10.7 | 603 | 10.7 | 603 | 10.7 | 2,204 | 39.1 | - | - | - | - | - | - | 254 | 4.5 | 254 | 4.5 | 254 | 4.5 | 254 | 4.5 | - | - | 5,632 | 22.6 |
| **Total PROJECT COSTS** | 3,918 | 15.7 | 3,904 | 15.7 | 2,710 | 10.9 | 1,781 | 7.2 | 2,204 | 8.9 | 516 | 2.1 | 4,474 | 18.0 | 3,013 | 12.1 | 660 | 2.7 | 660 | 2.7 | 558 | 2.2 | 481 | 1.9 | 0 | - | 24,880 | 100.0 |

Table 9: Component by Financier, thousands US$

(US$ '000)

| | GAFSP FSM | | GAFSP Kiribati | | GAFSP RMI | | GAFSP Tuvalu | | GAFSP other | | GAFSP FAO TA | | Financing gap | | Beneficiaries | | Government FSM | | Government Kiribati | | Governemnt RMI | | Government Tuvalu | | The Government | | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | | Amount | % |
| **A. Component 1: Community Engagement** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sub-Component 1.1: Community Consultations and Mobilisation | 754 | 21.4 | 744 | 21.1 | 518 | 14.7 | 330 | 9.4 | - | - | - | - | 867 | 24.6 | - | - | 79 | 2.2 | 79 | 2.2 | 79 | 2.2 | 79 | 2.2 | 0 | - | 3,529 | 18.3 |
| Sub-Component 1.2: Nutrition and Health Awareness | 122 | 23.1 | 122 | 23.1 | 80 | 15.2 | 48 | 9.1 | - | - | - | - | 157 | 29.6 | - | - | - | - | - | - | - | - | - | - | 0 | - | 530 | 2.7 |
| **Subtotal** | 877 | 21.6 | 866 | 21.3 | 599 | 14.8 | 378 | 9.3 | - | - | - | - | 1,023 | 25.2 | - | - | 79 | 1.9 | 79 | 1.9 | 79 | 1.9 | 79 | 1.9 | 0 | - | 4,059 | 21.0 |
| **B. Component 2: Investments in Food, Nutrition and Water Security** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sub-Component 2.1: Private Goods Investments | 364 | 14.1 | 364 | 14.1 | 213 | 8.3 | 99 | 3.8 | - | - | - | - | 559 | 21.7 | 976 | 37.9 | - | - | - | - | - | - | - | - | - | - | 2,574 | 13.3 |
| Sub-Component 2.2: Public Goods Investments | 1,329 | 17.1 | 1,329 | 17.1 | 821 | 10.5 | 436 | 5.6 | - | - | - | - | 1,885 | 24.2 | 1,360 | 17.5 | 211 | 2.7 | 211 | 2.7 | 132 | 1.7 | 72 | 0.9 | - | - | 7,788 | 40.4 |
| **Subtotal** | 1,693 | 16.3 | 1,693 | 16.3 | 1,034 | 10.0 | 535 | 5.2 | - | - | - | - | 2,445 | 23.6 | 2,336 | 22.5 | 211 | 2.0 | 211 | 2.0 | 132 | 1.3 | 72 | 0.7 | - | - | 10,362 | 53.7 |
| C. Component 3: Enabling Policy Framework | - | - | - | - | - | - | - | - | - | - | 400 | 80.0 | - | - | - | - | 25 | 5.0 | 25 | 5.0 | 25 | 5.0 | 25 | 5.0 | - | - | 500 | 2.6 |
| **D. Component 4: Project Coordination and Management** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sub-Component 4.1: Project Coordination and Capacity Building | - | - | - | - | - | - | - | - | 1,507 | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1,507 | 7.8 |
| Sub-Component 4.2: Project Management | 468 | 18.1 | 468 | 18.1 | 468 | 18.1 | 468 | 18.1 | - | - | - | - | - | - | - | - | 179 | 6.9 | 179 | 6.9 | 179 | 6.9 | 179 | 6.9 | - | - | 2,587 | 13.4 |
| Sub-Component 4.3: M&E and Knowledge Management | - | - | - | - | - | - | - | - | 202 | 74.1 | - | - | - | - | - | - | 18 | 6.5 | 18 | 6.5 | 18 | 6.5 | 18 | 6.5 | - | - | 272 | 1.4 |
| **Subtotal** | 468 | 10.7 | 468 | 10.7 | 468 | 10.7 | 468 | 10.7 | 1,708 | 39.1 | - | - | - | - | - | - | 197 | 4.5 | 197 | 4.5 | 197 | 4.5 | 197 | 4.5 | - | - | 4,366 | 22.6 |
| **Total PROJECT COSTS** | 3,037 | 15.7 | 3,027 | 15.7 | 2,101 | 10.9 | 1,381 | 7.2 | 1,708 | 8.9 | 400 | 2.1 | 3,468 | 18.0 | 2,336 | 12.1 | 512 | 2.7 | 512 | 2.7 | 433 | 2.2 | 373 | 1.9 | 0 | - | 19,287 | 100.0 |

Table 10: Project Base Costs per Component

North Pacific

Small Islands Food and Water Project (SIFWaP)

**Components Project Cost Summary**

| | (AUD '000) | | | (US$ '000) | | | % Foreign Exchange | % Total Base Costs |
|---|---|---|---|---|---|---|---|---|
| | **Local** | **Foreign** | **Total** | **Local** | **Foreign** | **Total** | | |
| **A. Component 1: Community Engagement** | | | | | | | | |
| Sub-Component 1.1: Community Consultations and Mobilisation | 4 289 | 26 | 4 315 | 3 324 | 20 | 3 345 | 1 | 18 |
| Sub-Component 1.2: Nutrition and Health Awareness | 657 | - | 657 | 509 | - | 509 | - | 3 |
| **Subtotal** | 4 945 | 26 | 4 972 | 3 833 | 20 | 3 854 | 1 | 21 |
| **B. Component 2: Investments in Food, Nutrition and Water Security** | | | | | | | | |
| Sub-Component 2.1: Private Goods Investments | 3 321 | - | 3 321 | 2 574 | - | 2 574 | - | 14 |
| Sub-Component 2.2: Public Goods Investments | 9 999 | - | 9 999 | 7 751 | - | 7 751 | - | 41 |
| | 13 | | 13 | 10 | | 10 | | |
| **Subtotal** | 320 | - | 320 | 325 | - | 325 | - | 55 |
| C. Component 3: Enabling Policy Framework | 645 | - | 645 | 500 | - | 500 | - | 3 |
| **D. Component 4: Project Coordination and Management** | | | | | | | | |
| Sub-Component 4.1: Project Coordination and Capacity Building | 1 818 | 13 | 1 831 | 1 410 | 10 | 1 420 | 1 | 8 |
| Sub-Component 4.2: Project Management | 3 089 | 52 | 3 140 | 2 394 | 40 | 2 434 | 2 | 13 |
| Sub-Component 4.3: M&E and Knowledge Management | 333 | - | 333 | 258 | - | 258 | - | 1 |
| **Subtotal** | 5 240 | 65 | 5 304 | 4 062 | 50 | 4 112 | 1 | 22 |
| | 24 | | 24 | 18 | | 18 | | |
| **Total BASELINE COSTS** | 150 | 91 | 241 | 721 | 70 | 791 | - | 100 |
| Physical Contingencies | - | - | - | - | - | - | - | - |
| Price Contingencies | 636 | 3 | 640 | 493 | 3 | 496 | 1 | 3 |
| | 24 | | 24 | 19 | | 19 | | |
| **Total PROJECT COSTS** | 786 | 94 | 880 | 214 | 73 | 287 | - | 103 |

Table 11: Components by Year, including contingencies

North Pacific
Small Islands Food and Water Project (SIFWaP)
**Project Components by Year -- Totals Including Contingencies**

| | Totals Including Contingencies (AUD '000) | | | | | | | Totals Including Contingencies (US$ '000) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **2022** | **2023** | **2024** | **2025** | **2026** | **2027** | **Total** | **2022** | **2023** | **2024** | **2025** | **2026** | **2027** | **Total** |
| **A. Component 1: Community Engagement** | | | | | | | | | | | | | | |
| Sub-Component 1.1: Community Consultations and Mobilisation | 737 | 971 | 944 | 787 | 636 | 477 | 4,552 | 571 | 753 | 732 | 610 | 493 | 370 | 3,529 |
| Sub-Component 1.2: Nutrition and Health Awareness | 95 | 298 | 141 | 116 | 34 | - | 684 | 74 | 231 | 109 | 90 | 26 | - | 530 |
| **Subtotal** | 832 | 1,268 | 1,085 | 903 | 670 | 477 | 5,236 | 645 | 983 | 841 | 700 | 519 | 370 | 4,059 |
| **B. Component 2: Investments in Food, Nutrition and Water Security** | | | | | | | | | | | | | | |
| Sub-Component 2.1: Private Goods Investments | - | - | - | 1,660 | 1,660 | - | 3,321 | - | - | - | 1,287 | 1,287 | - | 2,574 |
| Sub-Component 2.2: Public Goods Investments | - | 77 | 78 | 4,908 | 4,817 | 166 | 10,046 | - | 59 | 61 | 3,805 | 3,734 | 128 | 7,788 |
| **Subtotal** | - | 77 | 78 | 6,569 | 6,478 | 166 | 13,367 | - | 59 | 61 | 5,092 | 5,022 | 128 | 10,362 |
| C. Component 3: Enabling Policy Framework | 323 | 323 | - | - | - | - | 645 | 250 | 250 | - | - | - | - | 500 |
| **D. Component 4: Project Coordination and Management** | | | | | | | | | | | | | | |
| Sub-Component 4.1: Project Coordination and Capacity Building | 334 | 322 | 311 | 317 | 281 | 379 | 1,943 | 259 | 249 | 241 | 246 | 218 | 294 | 1,507 |
| Sub-Component 4.2: Project Management | 535 | 508 | 535 | 584 | 539 | 636 | 3,337 | 415 | 394 | 414 | 453 | 418 | 493 | 2,587 |
| Sub-Component 4.3: M&E and Knowledge Management | 79 | 40 | 102 | 41 | 21 | 68 | 351 | 62 | 31 | 79 | 32 | 16 | 52 | 272 |
| **Subtotal** | 948 | 870 | 947 | 942 | 842 | 1,083 | 5,632 | 735 | 674 | 734 | 730 | 653 | 840 | 4,366 |
| **Total PROJECT COSTS** | 2,103 | 2,537 | 2,110 | 8,414 | 7,990 | 1,726 | 24,880 | 1,630 | 1,967 | 1,636 | 6,523 | 6,194 | 1,338 | 19,287 |

Table 12: Expenditure Category by Financier, thousands AUD

(AUD '000)

| | GAFSP FSM | | GAFSP Kiribati | | GAFSP RMI | | GAFSP Tuvalu | | GAFSP other | | GAFSP FAO TA | | Financing gap | | Beneficiaries | | Government FSM | | Government Kiribati | | Governemnt RMI | | Government Tuvalu | | The Government | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Amount** | **%** | **Amount** | **%** | **Amount** | **%** | **Amount** | **%** | **Amount** | **%** | **Amount** | **%** | **Amount** | **%** | **Amount** | **%** | **Amount** | **%** | **Amount** | **%** | **Amount** | **%** | **Amount** | **%** | **Amount** | **%** | **Amount** | **%** |
| **I. Investment Costs** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A. Equipment and Materials | 39 | 20.9 | 39 | 20.9 | 34 | 18.1 | 30 | 15.8 | 27 | 14.3 | - | - | 19 | 10.1 | - | - | - | - | - | - | - | - | - | - | 0 | - | 188 | 0.8 |
| B. Grant and subsidies | 1,867 | 15.7 | 1,867 | 15.7 | 1,093 | 9.2 | 507 | 4.3 | - | - | - | - | 2,872 | 24.1 | 3,013 | 25.3 | 246 | 2.1 | 246 | 2.1 | 144 | 1.2 | 67 | 0.6 | 0 | - | 11,920 | 47.9 |
| **C. Consultancies** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Studies | 66 | 18.4 | 66 | 18.4 | 66 | 18.4 | 66 | 18.4 | 94 | 26.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 357 | 1.4 |
| Technical Assistance | 291 | 16.5 | 291 | 16.5 | 184 | 10.5 | 103 | 5.8 | 108 | 6.2 | 310 | 17.6 | 397 | 22.5 | - | - | 19 | 1.1 | 19 | 1.1 | 19 | 1.1 | 19 | 1.1 | 0 | - | 1,761 | 7.1 |
| **Subtotal** | 357 | 16.8 | 357 | 16.8 | 250 | 11.8 | 169 | 8.0 | 202 | 9.5 | 310 | 14.6 | 397 | 18.7 | - | - | 19 | 0.9 | 19 | 0.9 | 19 | 0.9 | 19 | 0.9 | 0 | - | 2,118 | 8.5 |
| D. Workshops | 177 | 17.9 | 163 | 16.6 | 159 | 16.1 | 145 | 14.8 | 16 | 1.7 | 206 | 21.0 | 66 | 6.7 | - | - | 13 | 1.3 | 13 | 1.3 | 13 | 1.3 | 13 | 1.3 | 0 | - | 984 | 4.0 |
| E. Training | 237 | 16.2 | 237 | 16.2 | 152 | 10.4 | 88 | 6.0 | 160 | 10.9 | - | - | 315 | 21.5 | - | - | 69 | 4.7 | 69 | 4.7 | 69 | 4.7 | 69 | 4.7 | 0 | - | 1,465 | 5.9 |
| **Total Investment Costs** | 2,676 | 16.0 | 2,663 | 16.0 | 1,688 | 10.1 | 938 | 5.6 | 405 | 2.4 | 516 | 3.1 | 3,668 | 22.0 | 3,013 | 18.1 | 347 | 2.1 | 347 | 2.1 | 245 | 1.5 | 168 | 1.0 | 0 | - | 16,676 | 67.0 |
| **II. Recurrent Costs** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A. Operating costs | 110 | 10.4 | 110 | 10.4 | 63 | 5.9 | 27 | 2.6 | - | - | - | - | 167 | 15.7 | - | - | 146 | 13.8 | 146 | 13.8 | 146 | 13.8 | 146 | 13.8 | -0 | -0.0 | 1,061 | 4.3 |
| B. Salaries and allowances | 1,132 | 15.8 | 1,132 | 15.8 | 959 | 13.4 | 815 | 11.4 | 1,799 | 25.2 | - | - | 639 | 8.9 | - | - | 167 | 2.3 | 167 | 2.3 | 167 | 2.3 | 167 | 2.3 | -0 | -0.0 | 7,144 | 28.7 |
| **Total Recurrent Costs** | 1,241 | 15.1 | 1,241 | 15.1 | 1,021 | 12.5 | 843 | 10.3 | 1,799 | 21.9 | - | - | 805 | 9.8 | - | - | 313 | 3.8 | 313 | 3.8 | 313 | 3.8 | 313 | 3.8 | -0 | -0.0 | 8,204 | 33.0 |
| **Total PROJECT COSTS** | 3,918 | 15.7 | 3,904 | 15.7 | 2,710 | 10.9 | 1,781 | 7.2 | 2,204 | 8.9 | 516 | 2.1 | 4,474 | 18.0 | 3,013 | 12.1 | 660 | 2.7 | 660 | 2.7 | 558 | 2.2 | 481 | 1.9 | 0 | - | 24,880 | 100.0 |

Table 13: Expenditure Category by Financier, thousands US$

(US$ '000)

| | GAFSP FSM | | GAFSP Kiribati | | GAFSP RMI | | GAFSP Tuvalu | | GAFSP other | | GAFSP FAO TA | | Financing gap | | Beneficiaries | | Government FSM | | Government Kiribati | | Governemnt RMI | | Government Tuvalu | | The Government | | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | | Amount | % |
| **I. Investment Costs** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A. Equipment and Materials | 31 | 20.9 | 31 | 20.9 | 26 | 18.1 | 23 | 15.8 | 21 | 14.3 | - | - | 15 | 10.1 | - | - | - | - | - | - | - | - | - | - | 0 | - | | 146 | 0.8 |
| B. Grant and subsidies | 1,447 | 15.7 | 1,447 | 15.7 | 847 | 9.2 | 393 | 4.3 | - | - | - | - | 2,226 | 24.1 | 2,336 | 25.3 | 190 | 2.1 | 190 | 2.1 | 112 | 1.2 | 52 | 0.6 | - | - | | 9,240 | 47.9 |
| **C. Consultancies** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Studies | 51 | 18.4 | 51 | 18.4 | 51 | 18.4 | 51 | 18.4 | 73 | 26.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | 277 | 1.4 |
| Technical Assistance | 226 | 16.5 | 226 | 16.5 | 143 | 10.5 | 80 | 5.8 | 84 | 6.2 | 240 | 17.6 | 308 | 22.5 | - | - | 15 | 1.1 | 15 | 1.1 | 15 | 1.1 | 15 | 1.1 | -0 | -0.0 | | 1,365 | 7.1 |
| **Subtotal** | 277 | 16.8 | 277 | 16.8 | 194 | 11.8 | 131 | 8.0 | 157 | 9.5 | 240 | 14.6 | 308 | 18.7 | - | - | 15 | 0.9 | 15 | 0.9 | 15 | 0.9 | 15 | 0.9 | -0 | -0.0 | | 1,642 | 8.5 |
| D. Workshops | 137 | 17.9 | 127 | 16.6 | 123 | 16.1 | 113 | 14.8 | 13 | 1.7 | 160 | 21.0 | 51 | 6.7 | - | - | 10 | 1.3 | 10 | 1.3 | 10 | 1.3 | 10 | 1.3 | - | - | | 763 | 4.0 |
| E. Training | 184 | 16.2 | 184 | 16.2 | 118 | 10.4 | 68 | 6.0 | 124 | 10.9 | - | - | 244 | 21.5 | - | - | 54 | 4.7 | 54 | 4.7 | 54 | 4.7 | 54 | 4.7 | 0 | - | | 1,136 | 5.9 |
| **Total Investment Costs** | 2,075 | 16.0 | 2,064 | 16.0 | 1,309 | 10.1 | 727 | 5.6 | 314 | 2.4 | 400 | 3.1 | 2,844 | 22.0 | 2,336 | 18.1 | 269 | 2.1 | 269 | 2.1 | 190 | 1.5 | 130 | 1.0 | 0 | - | | 12,927 | 67.0 |
| **II. Recurrent Costs** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A. Operating costs | 85 | 10.4 | 85 | 10.4 | 49 | 5.9 | 21 | 2.6 | - | - | - | - | 129 | 15.7 | - | - | 113 | 13.8 | 113 | 13.8 | 113 | 13.8 | 113 | 13.8 | -0 | -0.0 | | 822 | 4.3 |
| B. Salaries and allowances | 877 | 15.8 | 877 | 15.8 | 743 | 13.4 | 632 | 11.4 | 1,394 | 25.2 | - | - | 495 | 8.9 | - | - | 130 | 2.3 | 130 | 2.3 | 130 | 2.3 | 130 | 2.3 | 0 | - | | 5,538 | 28.7 |
| **Total Recurrent Costs** | 962 | 15.1 | 962 | 15.1 | 792 | 12.5 | 653 | 10.3 | 1,394 | 21.9 | - | - | 624 | 9.8 | - | - | 243 | 3.8 | 243 | 3.8 | 243 | 3.8 | 243 | 3.8 | 0 | - | | 6,360 | 33.0 |
| **Total PROJECT COSTS** | 3,037 | 15.7 | 3,027 | 15.7 | 2,101 | 10.9 | 1,381 | 7.2 | 1,708 | 8.9 | 400 | 2.1 | 3,468 | 18.0 | 2,336 | 12.1 | 512 | 2.7 | 512 | 2.7 | 433 | 2.2 | 373 | 1.9 | 0 | - | | 19,287 | 100.0 |

Table 14: Detailed Costs by Component and Year (US$ '000)

North Pacific
Small Islands Food and Water Project (SIFWaP)
Table 1.1. Sub-Component 1.1: Community Consultations and Mobilisation
**Detailed Costs**

| | Unit | Quantities | | | | | | | Unit Cost | Totals Including Contingencies (US$ '000) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | Total | (US$) | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | Total |
| **I. Investment Costs** | | | | | | | | | | | | | | | | |
| **A. Selection of islands and communities** | | | | | | | | | | | | | | | | |
| Federated States of Micronesia | Lumpsum | 1 | - | - | - | - | - | 1 | 10,000 | 10 | - | - | - | - | - | 10 |
| Kiribati | Lumpsum | 1 | - | - | - | - | - | 1 | 10,000 | 10 | - | - | - | - | - | 10 |
| Republic of the Marshall Islands | Lumpsum | 1 | - | - | - | - | - | 1 | 10,000 | 10 | - | - | - | - | - | 10 |
| Tuvalu | Lumpsum | 1 | - | - | - | - | - | 1 | 10,000 | 10 | - | - | - | - | - | 10 |
| **Subtotal** | | | | | | | | | | 40 | - | - | - | - | - | 40 |
| **B. Community planning preparation of materials and procedures** | | | | | | | | | | | | | | | | |
| Federated States of Micronesia | Lumpsum | 1 | - | - | - | - | - | 1 | 5,000 | 5 | - | - | - | - | - | 5 |
| Kiribati | Lumpsum | 1 | - | - | - | - | - | 1 | 5,000 | 5 | - | - | - | - | - | 5 |
| Republic of the Marshall Islands | Lumpsum | 1 | - | - | - | - | - | 1 | 5,000 | 5 | - | - | - | - | - | 5 |
| Tuvalu | Lumpsum | 1 | - | - | - | - | - | 1 | 5,000 | 5 | - | - | - | - | - | 5 |
| **Subtotal** | | | | | | | | | | 20 | - | - | - | - | - | 20 |
| **C. Study trip to Kiribati** | | | | | | | | | | | | | | | | |
| Federated States of Micronesia | Lumpsum | - | 1 | - | - | - | - | 1 | 10,000 | - | 10 | - | - | - | - | 10 |
| RMI | Lumpsum | - | 1 | - | - | - | - | 1 | 10,000 | - | 10 | - | - | - | - | 10 |
| Tuvalu | Lumpsum | - | 1 | - | - | - | - | 1 | 10,000 | - | 10 | - | - | - | - | 10 |
| **Subtotal** | | | | | | | | | | - | 31 | - | - | - | - | 31 |
| **D. Training of Community Field Officers** | | | | | | | | | | | | | | | | |
| Federated States of Micronesia | Lumpsum | 1 | - | - | 1 | - | - | 2 | 7,000 | 7 | - | - | 8 | - | - | 15 |
| Kiribati | Lumpsum | 1 | - | - | 1 | - | - | 2 | 7,000 | 7 | - | - | 8 | - | - | 15 |
| Republic of the Marshall Islands | Lumpsum | 1 | - | - | 1 | - | - | 2 | 7,000 | 7 | - | - | 8 | - | - | 15 |
| Tuvalu | Lumpsum | 1 | - | - | 1 | - | - | 2 | 7,000 | 7 | - | - | 8 | - | - | 15 |
| **Subtotal** | | | | | | | | | | 28 | - | - | 30 | - | - | 58 |
| **E. Training of Island Facilitators** | | | | | | | | | | | | | | | | |
| Federated States of Micronesia | Lumpsum | 1 | - | - | 1 | - | - | 2 | 5,000 | 5 | - | - | 5 | - | - | 10 |
| Kiribati | Lumpsum | 1 | - | - | 1 | - | - | 2 | 5,000 | 5 | - | - | 5 | - | - | 10 |
| Republic of the Marshall Islands | Lumpsum | 1 | - | - | 1 | - | - | 2 | 5,000 | 5 | - | - | 5 | - | - | 10 |
| Tuvalu | Lumpsum | 1 | - | - | 1 | - | - | 2 | 5,000 | 5 | - | - | 5 | - | - | 10 |
| **Subtotal** | | | | | | | | | | 20 | - | - | 21 | - | - | 42 |
| **F. Road show and awareness raising** | | | | | | | | | | | | | | | | |
| Federated States of Micronesia | Lumpsum | 1 | - | - | - | - | - | 1 | 10,000 | 10 | - | - | - | - | - | 10 |
| Kiribati | Lumpsum | 1 | - | - | - | - | - | 1 | 10,000 | 10 | - | - | - | - | - | 10 |
| Republic of the Marshall Islands | Lumpsum | 1 | - | - | - | - | - | 1 | 10,000 | 10 | - | - | - | - | - | 10 |
| Tuvalu | Lumpsum | 1 | - | - | - | - | - | 1 | 10,000 | 10 | - | - | - | - | - | 10 |
| **Subtotal** | | | | | | | | | | 40 | - | - | - | - | - | 40 |
| **G. Support from government agriculture extension services and water t** | | | | | | | | | | | | | | | | |
| Federated States of Micronesia | Lumpsum | - | 1 | 1 | 1 | 1 | 1 | 5 | 10,000 | - | 10 | 11 | 11 | 11 | 11 | 54 |
| Kiribati | Lumpsum | - | 1 | 1 | 1 | 1 | 1 | 5 | 10,000 | - | 10 | 11 | 11 | 11 | 11 | 54 |
| Republic of the Marshall Islands | Lumpsum | - | 1 | 1 | 1 | 1 | 1 | 5 | 10,000 | - | 10 | 11 | 11 | 11 | 11 | 54 |
| Tuvalu | Lumpsum | - | 1 | 1 | 1 | 1 | 1 | 5 | 10,000 | - | 10 | 11 | 11 | 11 | 11 | 54 |
| **Subtotal** | | | | | | | | | | - | 41 | 42 | 43 | 44 | 45 | 214 |
| **H. IT equipment for IFs /b** | | | | | | | | | | | | | | | | |
| Federated States of Micronesia | Lumpsum | 9 | - | - | 9 | - | - | 18 | 500 | 5 | - | - | 5 | - | - | 9 |
| Kiribati | Lumpsum | 9 | - | - | 9 | - | - | 18 | 500 | 5 | - | - | 5 | - | - | 9 |
| Republic of the Marshall Islands | Lumpsum | 5 | - | - | 5 | - | - | 10 | 500 | 3 | - | - | 3 | - | - | 5 |
| Tuvalu | Lumpsum | 2 | - | - | 2 | - | - | 4 | 500 | 1 | - | - | 1 | - | - | 2 |
| **Subtotal** | | | | | | | | | | 13 | - | - | 13 | - | - | 26 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **I. Tablets for Kobo software for CFOs /c** | | | | | | | | | | | | | | | | |
| Federated States of Micronesia | per tablet | 23 | - | - | - | - | - | 23 | 242 | 6 | - | - | - | - | - | 6 |
| Kiribati | per tablet | 23 | - | - | - | - | - | 23 | 242 | 6 | - | - | - | - | - | 6 |
| Republic of the Marshall Islands | per tablet | 14 | - | - | - | - | - | 14 | 242 | 3 | - | - | - | - | - | 3 |
| Tuvalu | per tablet | 6 | - | - | - | - | - | 6 | 242 | 1 | - | - | - | - | - | 1 |
| **Subtotal** | | | | | | | | | | 16 | - | - | - | - | - | 16 |
| **J. Community planning: budget for Community (** | | | | | | | | | | | | | | | | |
| Federated States of Micronesia | Lumpsum | - | 35 | 35 | - | - | - | 70 | 700 | - | 25 | 26 | - | - | - | 51 |
| Kiribati | Lumpsum | - | 35 | 35 | - | - | - | 70 | 700 | - | 25 | 26 | - | - | - | 51 |
| Republic of the Marshall Islands | Lumpsum | - | 21 | 20 | - | - | - | 41 | 700 | - | 15 | 15 | - | - | - | 30 |
| Tuvalu | Lumpsum | - | 10 | 9 | - | - | - | 19 | 700 | - | 7 | 7 | - | - | - | 14 |
| **Subtotal** | | | | | | | | | | - | 73 | 73 | - | - | - | 146 |
| **K. Budget for trainings (materials, trainer and/or** | | | | | | | | | | | | | | | | |
| Federated States of Micronesia | Lumpsum | - | 35 | 35 | - | - | - | 70 | 1,000 | - | 36 | 37 | - | - | - | 73 |
| Kiribati | Lumpsum | - | 35 | 35 | - | - | - | 70 | 1,000 | - | 36 | 37 | - | - | - | 73 |
| Republic of the Marshall Islands | Lumpsum | - | 21 | 20 | - | - | - | 41 | 1,000 | - | 22 | 21 | - | - | - | 43 |
| Tuvalu | Lumpsum | - | 10 | 9 | - | - | - | 19 | 1,000 | - | 10 | 9 | - | - | - | 20 |
| **Subtotal** | | | | | | | | | | - | 104 | 104 | - | - | - | 208 |
| **L. Lumpsum for GESI implementation** | | | | | | | | | | | | | | | | |
| Federated States of Micronesia | per community | - | 35 | 35 | - | - | - | 70 | 200 | - | 7 | 7 | - | - | - | 15 |
| Kiribati | per community | - | 35 | 35 | - | - | - | 70 | 200 | - | 7 | 7 | - | - | - | 15 |
| Republic of the Marshall Islands | per community | - | 21 | 20 | - | - | - | 41 | 200 | - | 4 | 4 | - | - | - | 9 |
| Tuvalu | per community | - | 10 | 9 | - | - | - | 19 | 200 | - | 2 | 2 | - | - | - | 4 |
| **Subtotal** | | | | | | | | | | - | 21 | 21 | - | - | - | 42 |
| **M. NGO costs** | | | | | | | | | | | | | | | | |
| Federated States of Micronesia | Lumpsum | 70 | 70 | 70 | 70 | 70 | 70 | 420 | 200 | 14 | 14 | 15 | 15 | 15 | 16 | 89 |
| Kiribati | Lumpsum | 70 | 70 | 70 | 70 | 70 | 70 | 420 | 200 | 14 | 14 | 15 | 15 | 15 | 16 | 89 |
| Republic of the Marshall Islands | Lumpsum | 41 | 41 | 41 | 41 | 41 | 41 | 246 | 200 | 8 | 8 | 9 | 9 | 9 | 9 | 52 |
| Tuvalu | Lumpsum | 19 | 19 | 19 | 19 | 19 | 19 | 114 | 200 | 4 | 4 | 4 | 4 | 4 | 4 | 24 |
| **Subtotal** | | | | | | | | | | 40 | 41 | 42 | 43 | 44 | 45 | 255 |
| **Total Investment Costs** | | | | | | | | | | 218 | 311 | 282 | 151 | 87 | 89 | ### |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **II. Recurrent Costs** | | | | | | | | | | | | | | | | |
| **A. Component 1 manager/Community outreach** | | | | | | | | | | | | | | | | |
| FSM | monthly salary | 12 | 12 | 12 | 12 | 6 | 6 | 60 | 2,000 | 24 | 25 | 25 | 26 | 13 | 13 | 126 |
| Kiribati | monthly salary | 12 | 12 | 12 | 12 | 6 | 6 | 60 | 2,000 | 24 | 25 | 25 | 26 | 13 | 13 | 126 |
| RMI | monthly salary | 12 | 12 | 12 | 12 | 6 | 6 | 60 | 2,000 | 24 | 25 | 25 | 26 | 13 | 13 | 126 |
| Tuvalu | monthly salary | 12 | 12 | 12 | 12 | 6 | 6 | 60 | 2,000 | 24 | 25 | 25 | 26 | 13 | 13 | 126 |
| **Subtotal** | | | | | | | | | | 97 | 99 | 101 | 103 | 52 | 54 | 506 |
| **B. Social Security Component 1 manager/Comm** | | | | | | | | | | | | | | | | |
| FSM | monthly salary | 12 | 12 | 12 | 12 | 6 | 6 | 60 | 400 | 5 | 5 | 5 | 5 | 3 | 3 | 25 |
| Kiribati | monthly salary | 12 | 12 | 12 | 12 | 6 | 6 | 60 | 400 | 5 | 5 | 5 | 5 | 3 | 3 | 25 |
| RMI | monthly salary | 12 | 12 | 12 | 12 | 6 | 6 | 60 | 400 | 5 | 5 | 5 | 5 | 3 | 3 | 25 |
| Tuvalu | monthly salary | 12 | 12 | 12 | 12 | 6 | 6 | 60 | 400 | 5 | 5 | 5 | 5 | 3 | 3 | 25 |
| **Subtotal** | | | | | | | | | | 19 | 20 | 20 | 21 | 10 | 11 | 101 |
| **C. Community Field Officers /d** | | | | | | | | | | | | | | | | |
| FSM | Per month | 138 | 276 | 276 | 276 | 276 | 138 | 1,380 | 200 | 28 | 57 | 58 | 59 | 60 | 31 | 293 |
| Kiribati | Per month | 138 | 276 | 276 | 276 | 276 | 138 | 1,380 | 200 | 28 | 57 | 58 | 59 | 60 | 31 | 293 |
| RMI | Per month | 84 | 168 | 168 | 168 | 168 | 84 | 840 | 200 | 17 | 35 | 35 | 36 | 37 | 19 | 178 |
| Tuvalu | Per month | 36 | 72 | 72 | 72 | 72 | 36 | 360 | 200 | 7 | 15 | 15 | 15 | 16 | 8 | 76 |
| **Subtotal** | | | | | | | | | | 80 | 163 | 166 | 170 | 173 | 88 | 841 |
| **D. Operational costs per CFO, including travel an** | | | | | | | | | | | | | | | | |
| FSM | Per community | 70 | 70 | 70 | 70 | 70 | - | 350 | 200 | 14 | 14 | 15 | 15 | 15 | - | 74 |
| Kiribati | Per community | 70 | 70 | 70 | 70 | 70 | - | 350 | 200 | 14 | 14 | 15 | 15 | 15 | - | 74 |
| RMI | Per community | 41 | 41 | 41 | 41 | 41 | - | 205 | 200 | 8 | 8 | 9 | 9 | 9 | - | 43 |
| Tuvalu | Per community | 19 | 19 | 19 | 19 | 19 | - | 95 | 200 | 4 | 4 | 4 | 4 | 4 | - | 20 |
| **Subtotal** | | | | | | | | | | 40 | 41 | 42 | 43 | 44 | - | 210 |
| **E. Island Facilitators /f** | | | | | | | | | | | | | | | | |
| FSM | Per month | 108 | 108 | 108 | 108 | 108 | 108 | 648 | 300 | 33 | 33 | 34 | 35 | 35 | 36 | 206 |
| Kiribati | Per month | 108 | 108 | 108 | 108 | 108 | 108 | 648 | 300 | 33 | 33 | 34 | 35 | 35 | 36 | 206 |
| RMI | Per month | 60 | 60 | 60 | 60 | 60 | 60 | 360 | 300 | 18 | 19 | 19 | 19 | 20 | 20 | 115 |
| Tuvalu | Per month | 24 | 24 | 24 | 24 | 24 | 24 | 144 | 300 | 7 | 7 | 8 | 8 | 8 | 8 | 46 |
| **Subtotal** | | | | | | | | | | 91 | 93 | 95 | 96 | 98 | 100 | 573 |
| **F. Operational costs per IF, including travel and c** | | | | | | | | | | | | | | | | |
| FSM | er island facilitat | 9 | 9 | 9 | 9 | 9 | 9 | 54 | 1,000 | 9 | 9 | 9 | 10 | 10 | 10 | 57 |
| Kiribati | er island facilitat | 9 | 9 | 9 | 9 | 9 | 9 | 54 | 1,000 | 9 | 9 | 9 | 10 | 10 | 10 | 57 |
| RMI | er island facilitat | 5 | 5 | 5 | 5 | 5 | 5 | 30 | 1,000 | 5 | 5 | 5 | 5 | 5 | 6 | 32 |
| Tuvalu | er island facilitat | 2 | 2 | 2 | 2 | 2 | 2 | 12 | 1,000 | 2 | 2 | 2 | 2 | 2 | 2 | 13 |
| **Subtotal** | | | | | | | | | | 25 | 26 | 26 | 27 | 27 | 28 | 159 |
| **Total Recurrent Costs** | | | | | | | | | | 353 | 442 | 450 | 459 | 406 | 281 | ### |
| **Total** | | | | | | | | | | 571 | 753 | 732 | 610 | 493 | 370 | ### |

North Pacific
Small Islands Food and Water Project (SIFWaP)
Table 1.2. Sub-Component 1.2: Nutrition and Health Awareness
**Detailed Costs**

| | Unit | Quantities | | | | | | | Unit Cost | Totals Including Contingencies (US$ '000) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | Total | (US$) | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | Total |
| **I. Investment Costs** | | | | | | | | | | | | | | | | |
| **A. Adaptation of materials on indigenous crops production and cooking** | | | | | | | | | | | | | | | | |
| Federated States of Micronesia | Lumpsum | 1 | - | - | - | - | - | 1 | 10,000 | 10 | - | - | - | - | - | 10 |
| Kiribati | Lumpsum | 1 | - | - | - | - | - | 1 | 10,000 | 10 | - | - | - | - | - | 10 |
| Republic of the Marshall Islands | Lumpsum | 1 | - | - | - | - | - | 1 | 10,000 | 10 | - | - | - | - | - | 10 |
| Tuvalu | Lumpsum | 1 | - | - | - | - | - | 1 | 10,000 | 10 | - | - | - | - | - | 10 |
| **Subtotal** | | | | | | | | | | 40 | - | - | - | - | - | 40 |
| **B. Communicaiton for nutrition awareness** | | | | | | | | | | | | | | | | |
| Federated States of Micronesia | Lumpsum | - | 1 | 1 | - | - | - | 2 | 5,000 | - | 5 | 5 | - | - | - | 10 |
| Kiribati | Lumpsum | - | 1 | 1 | - | - | - | 2 | 5,000 | - | 5 | 5 | - | - | - | 10 |
| Republic of the Marshall Islands | Lumpsum | - | 1 | 1 | - | - | - | 2 | 5,000 | - | 5 | 5 | - | - | - | 10 |
| Tuvalu | Lumpsum | - | 1 | 1 | - | - | - | 2 | 5,000 | - | 5 | 5 | - | - | - | 10 |
| **Subtotal** | | | | | | | | | | - | 21 | 21 | - | - | - | 42 |
| **C. Inputs and materials for nutrition activities (cooking demos)** | | | | | | | | | | | | | | | | |
| Federated States of Micronesia | Lumpsum | - | 70 | 70 | 70 | - | - | 210 | 300 | - | 22 | 22 | 23 | - | - | 66 |
| Kiribati | Lumpsum | - | 70 | 70 | 70 | - | - | 210 | 300 | - | 22 | 22 | 23 | - | - | 66 |
| Republic of the Marshall Islands | Lumpsum | - | 41 | 41 | 41 | - | - | 123 | 300 | - | 13 | 13 | 13 | - | - | 39 |
| Tuvalu | Lumpsum | - | 19 | 19 | 19 | - | - | 57 | 300 | - | 6 | 6 | 6 | - | - | 18 |
| **Subtotal** | | | | | | | | | | - | 62 | 63 | 64 | - | - | 189 |
| **D. Training on household methodology for CFOs (TOT)** | | | | | | | | | | | | | | | | |
| Federated States of Micronesia | Lumpsum | 23 | - | - | - | - | - | 23 | 500 | 12 | - | - | - | - | - | 12 |
| Kiribati | Lumpsum | 23 | - | - | - | - | - | 23 | 500 | 12 | - | - | - | - | - | 12 |
| Republic of the Marshall Islands | Lumpsum | 14 | - | - | - | - | - | 14 | 500 | 7 | - | - | - | - | - | 7 |
| Tuvalu | Lumpsum | 6 | - | - | - | - | - | 6 | 500 | 3 | - | - | - | - | - | 3 |
| **Subtotal** | | | | | | | | | | 33 | - | - | - | - | - | 33 |
| **E. Training on HH for model households by CFOs /a** | | | | | | | | | | | | | | | | |
| Federated States of Micronesia | Per community | - | 70 | - | - | - | - | 70 | 300 | - | 22 | - | - | - | - | 22 |
| Kiribati | Per community | - | 70 | - | - | - | - | 70 | 300 | - | 22 | - | - | - | - | 22 |
| Republic of the Marshall Islands | Per community | - | 41 | - | - | - | - | 41 | 300 | - | 13 | - | - | - | - | 13 |
| Tuvalu | Per community | - | 19 | - | - | - | - | 19 | 300 | - | 6 | - | - | - | - | 6 |
| **Subtotal** | | | | | | | | | | - | 62 | - | - | - | - | 62 |
| **F. Stipend for HH methodology training /b** | | | | | | | | | | | | | | | | |
| Federated States of Micronesia | Per community | - | 70 | - | - | - | - | 70 | 300 | - | 22 | - | - | - | - | 22 |
| Kiribati | Per community | - | 70 | - | - | - | - | 70 | 300 | - | 22 | - | - | - | - | 22 |
| Republic of the Marshall Islands | Per community | - | 41 | - | - | - | - | 41 | 300 | - | 13 | - | - | - | - | 13 |
| Tuvalu | Per community | - | 19 | - | - | - | - | 19 | 300 | - | 6 | - | - | - | - | 6 |
| **Subtotal** | | | | | | | | | | - | 62 | - | - | - | - | 62 |
| **G. Budget for community model HH activities** | | | | | | | | | | | | | | | | |
| Federated States of Micronesia | Per community | - | 70 | 70 | 70 | 70 | - | 280 | 120 | - | 9 | 9 | 9 | 9 | - | 36 |
| Kiribati | Per community | - | 70 | 70 | 70 | 70 | - | 280 | 120 | - | 9 | 9 | 9 | 9 | - | 36 |
| Republic of the Marshall Islands | Per community | - | 41 | 41 | 41 | 41 | - | 164 | 120 | - | 5 | 5 | 5 | 5 | - | 21 |
| Tuvalu | Per community | - | 19 | 19 | 19 | 19 | - | 76 | 120 | - | 2 | 2 | 2 | 2 | - | 10 |
| **Subtotal** | | | | | | | | | | - | 25 | 25 | 26 | 26 | - | 102 |
| **Total** | | | | | | | | | | 74 | 231 | 109 | 90 | 26 | - | 530 |

\a budget includes training and refresher/follow-up the next year
\b budget includes training and refresher/follow-up the next year

North Pacific
Small Islands Food and Water Project (SIFWaP)
Table 2.1. Sub-Component 2.1: Private Good Investments
**Detailed Costs**

| | Unit | Quantities | | | | | | | Unit Cost | Totals Including Contingencies (US$ '000) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | Total | (US$) | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | Total |
| **I. Investment Costs** | | | | | | | | | | | | | | | | |
| **A. Matching grants for private investments** | | | | | | | | | | | | | | | | |
| FSM | Community | - | - | - | 70 | 70 | - | 140 | 6,100 | - | - | - | 427 | 427 | - | 854 |
| Kiribati | Community | - | - | - | 70 | 70 | - | 140 | 6,100 | - | - | - | 427 | 427 | - | 854 |
| RMI | Community | - | - | - | 41 | 41 | - | 82 | 6,100 | - | - | - | 250 | 250 | - | 500 |
| Tuvalu | Community | - | - | - | 19 | 19 | - | 38 | 6,100 | - | - | - | 116 | 116 | - | 232 |
| **Subtotal** | | | | | | | | | | - | - | - | 1,220 | 1,220 | - | 2,440 |
| **B. Oversight of grant allocation process** | | | | | | | | | | | | | | | | |
| FSM | Community | - | - | - | 70 | 70 | - | 140 | 336 | - | - | - | 24 | 24 | - | 47 |
| Kiribati | Community | - | - | - | 70 | 70 | - | 140 | 336 | - | - | - | 24 | 24 | - | 47 |
| RMI | Community | - | - | - | 41 | 41 | - | 82 | 336 | - | - | - | 14 | 14 | - | 28 |
| Tuvalu | Community | - | - | - | 19 | 19 | - | 38 | 336 | - | - | - | 6 | 6 | - | 13 |
| **Total** | | | | | | | | | | - | - | - | 1,287 | 1,287 | - | 2,574 |

North Pacific
Small Islands Food and Water Project (SIFWaP)
Table 2.2. Sub-Component 2.2: Public Good Investments
**Detailed Costs**

| | | Quantities | | | | | | | Unit Cost | Totals Including Contingencies (US$ '000) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Unit | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | Total | (US$) | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | Total |
| **I. Investment Costs** | | | | | | | | | | | | | | | | |
| **A. Matching grants for public investments** | | | | | | | | | | | | | | | | |
| FSM | Community | - | - | - | 35 | 35 | - | 70 | 34,000 | - | - | - | 1,190 | 1,190 | - | 2,380 |
| Kiribati | Community | - | - | - | 35 | 35 | - | 70 | 34,000 | - | - | - | 1,190 | 1,190 | - | 2,380 |
| RMI | Community | - | - | - | 21 | 20 | - | 41 | 34,000 | - | - | - | 714 | 680 | - | 1,394 |
| Tuvalu | Community | - | - | - | 10 | 9 | - | 19 | 34,000 | - | - | - | 340 | 306 | - | 646 |
| **Subtotal** | | | | | | | | | | - | - | - | 3,434 | 3,366 | - | 6,800 |
| **B. Oversight of grant allocation process** | | | | | | | | | | | | | | | | |
| FSM | Community | - | - | - | 35 | 35 | - | 70 | 2,450 | - | - | - | 86 | 86 | - | 172 |
| Kiribati | Community | - | - | - | 35 | 35 | - | 70 | 2,450 | - | - | - | 86 | 86 | - | 172 |
| RMI | Community | - | - | - | 21 | 20 | - | 41 | 2,450 | - | - | - | 51 | 49 | - | 100 |
| Tuvalu | Community | - | - | - | 10 | 9 | - | 19 | 2,450 | - | - | - | 25 | 22 | - | 47 |
| **Total Investment Costs** | | | | | | | | | | - | - | - | 3,681 | 3,609 | - | 7,290 |
| **II. Recurrent Costs** | | | | | | | | | | | | | | | | |
| **A. Component 2 manager/Matching grants scheme specialist** | | | | | | | | | | | | | | | | |
| FSM | monthly salary | - | 6 | 6 | 12 | 12 | 12 | 48 | 2,000 | - | 12 | 13 | 26 | 26 | 27 | 104 |
| Kiribati | monthly salary | - | 6 | 6 | 12 | 12 | 12 | 48 | 2,000 | - | 12 | 13 | 26 | 26 | 27 | 104 |
| RMI | monthly salary | - | 6 | 6 | 12 | 12 | 12 | 48 | 2,000 | - | 12 | 13 | 26 | 26 | 27 | 104 |
| Tuvalu | monthly salary | - | 6 | 6 | 12 | 12 | 12 | 48 | 2,000 | - | 12 | 13 | 26 | 26 | 27 | 104 |
| **Subtotal** | | | | | | | | | | - | 49 | 50 | 103 | 105 | 107 | 415 |
| **B. Social Security Component 2 manager/matching grants scheme specialist** | | | | | | | | | | | | | | | | |
| FSM | monthly salary | - | 6 | 6 | 12 | 12 | 12 | 48 | 400 | - | 2 | 3 | 5 | 5 | 5 | 21 |
| Kiribati | monthly salary | - | 6 | 6 | 12 | 12 | 12 | 48 | 400 | - | 2 | 3 | 5 | 5 | 5 | 21 |
| RMI | monthly salary | - | 6 | 6 | 12 | 12 | 12 | 48 | 400 | - | 2 | 3 | 5 | 5 | 5 | 21 |
| Tuvalu | monthly salary | - | 6 | 6 | 12 | 12 | 12 | 48 | 400 | - | 2 | 3 | 5 | 5 | 5 | 21 |
| **Total** | | | | | | | | | | - | 59 | 61 | 3,805 | 3,734 | 128 | 7,788 |

North Pacific
Small Islands Food and Water Project (SIFWaP)
Table 3. Component 3: Enabling Policy Framework
**Detailed Costs**

| | | Quantities | | | | | | | Unit Cost | Totals Including Contingencies (US$ '000) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Unit | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | Total | (US$) | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | Total |
| **I. Investment Costs** | | | | | | | | | | | | | | | | |
| **A. National Agriculture Investment Plan, FSM** | | | | | | | | | | | | | | | | |
| Workshops | Lumpsum | 0.5 | 0.5 | - | - | - | - | 1 | 50,000 | 25 | 25 | - | - | - | - | 50 |
| Technical Assistance | Lumpsum | 0.5 | 0.5 | - | - | - | - | 1 | 75,000 | 38 | 38 | - | - | - | - | 75 |
| **Subtotal** | | | | | | | | | | 63 | 63 | - | - | - | - | 125 |
| **B. National Agriculture Investment Plan, Kiribati** | | | | | | | | | | | | | | | | |
| Workshops | Lumpsum | 0.5 | 0.5 | - | - | - | - | 1 | 50,000 | 25 | 25 | - | - | - | - | 50 |
| Technical Assistance | Lumpsum | 0.5 | 0.5 | - | - | - | - | 1 | 75,000 | 38 | 38 | - | - | - | - | 75 |
| **Subtotal** | | | | | | | | | | 63 | 63 | - | - | - | - | 125 |
| **C. National Agriculture Investment Plan, RMI** | | | | | | | | | | | | | | | | |
| Workshops | Lumpsum | 0.5 | 0.5 | - | - | - | - | 1 | 50,000 | 25 | 25 | - | - | - | - | 50 |
| Technical Assistance | Lumpsum | 0.5 | 0.5 | - | - | - | - | 1 | 75,000 | 38 | 38 | - | - | - | - | 75 |
| **Subtotal** | | | | | | | | | | 63 | 63 | - | - | - | - | 125 |
| **D. National Agriculture Investment Plan, Tuvalu** | | | | | | | | | | | | | | | | |
| Workshops | Lumpsum | 0.5 | 0.5 | - | - | - | - | 1 | 50,000 | 25 | 25 | - | - | - | - | 50 |
| Technical Assistance | Lumpsum | 0.5 | 0.5 | - | - | - | - | 1 | 75,000 | 38 | 38 | - | - | - | - | 75 |
| **Subtotal** | | | | | | | | | | 63 | 63 | - | - | - | - | 125 |
| **Total** | | | | | | | | | | 250 | 250 | - | - | - | - | 500 |

North Pacific
Small Islands Food and Water Project (SIFWaP)
Table 4.1. Sub-Component 4.1: Project Coordination and Capacity Building
**Detailed Costs**

| | | Quantities | | | | | | | Unit Cost | Totals Including Contingencies (US$ '000) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Unit | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | Total | (US$) | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | Total |
| **I. Investment Costs** | | | | | | | | | | | | | | | | |
| **A. Steering Committee** | | | | | | | | | | | | | | | | |
| Project Steering Committee, meeting costs | Lumpsum | 1 | - | 1 | - | - | 1 | 3 | 4,000 | 4 | - | 4 | - | - | 4 | 13 |
| **B. Central Project Coordination Unit** | | | | | | | | | | | | | | | | |
| Capacity building for financial management | lumpsum | 0.5 | 0.5 | - | - | - | - | 1 | 10,000 | 5 | 5 | - | - | - | - | 10 |
| Training, other | lumpsum | 0.25 | 0.25 | 0.25 | 0.25 | - | - | 1 | 30,000 | 8 | 8 | 8 | 8 | - | - | 31 |
| TA misc., including gender inclusion | Lumpsum | 1 | 1 | - | 1 | - | - | 3 | 12,000 | 12 | 12 | - | 13 | - | - | 37 |
| IT equipment | lumpsum | 1 | - | - | 1 | - | - | 2 | 10,000 | 10 | - | - | 11 | - | - | 21 |
| **Subtotal** | | | | | | | | | | 35 | 25 | 8 | 32 | - | - | 100 |
| **Total Investment Costs** | | | | | | | | | | 39 | 25 | 12 | 32 | - | 4 | 112 |
| **II. Recurrent Costs** | | | | | | | | | | | | | | | | |
| **A. Central Project Coordination Unit** | | | | | | | | | | | | | | | | |
| Project coordinator, planning and M&E coordinator | monthly salary | 12 | 12 | 12 | 12 | 12 | 18 | 78 | 5,000 | 61 | 62 | 63 | 64 | 66 | 100 | 416 |
| Social security | monthly | 12 | 12 | 12 | 12 | 12 | 18 | 78 | 1,000 | 12 | 12 | 13 | 13 | 13 | 20 | 83 |
| Finance and procurement specialist | monthly salary | 12 | 12 | 12 | 12 | 12 | 18 | 78 | 4,000 | 48 | 49 | 50 | 51 | 52 | 80 | 333 |
| Social security | monthly | 12 | 12 | 12 | 12 | 12 | 12 | 72 | 800 | 10 | 10 | 10 | 10 | 10 | 11 | 61 |
| Nutrition specialist | monhtly salary | 6 | 6 | 6 | - | - | - | 18 | 2,500 | 15 | 15 | 16 | - | - | - | 46 |
| Social security | monthly | 6 | 6 | 6 | - | - | - | 18 | 500 | 3 | 3 | 3 | - | - | - | 9 |
| **Subtotal** | | | | | | | | | | 149 | 152 | 155 | 139 | 142 | 211 | 948 |
| **B. Recurrent costs for the Central Project Coordination Unit** | | | | | | | | | | | | | | | | |
| Recurrent costs | lumpsum | 12 | 12 | 12 | 12 | 12 | 12 | 72 | 5,000 | 61 | 62 | 63 | 64 | 66 | 67 | 382 |
| Travel costs for PMU staff | lumpsum | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 10,000 | 10 | 10 | 11 | 11 | 11 | 11 | 64 |
| **Subtotal** | | | | | | | | | | 71 | 72 | 74 | 75 | 77 | 78 | 446 |
| **Total Recurrent Costs** | | | | | | | | | | 220 | 224 | 229 | 214 | 218 | 289 | 1,394 |
| **Total** | | | | | | | | | | 259 | 249 | 241 | 246 | 218 | 294 | 1,507 |

North Pacific
Small Islands Food and Water Project (SIFWaP)
Table 4.2. Sub-Component 4.2: Project Management
**Detailed Costs**

| | | Quantities | | | | | | | Unit Cost | Totals Including Contingencies (US$ '000) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Unit | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | Total | (US$) | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | Total |
| **I. Investment Costs** | | | | | | | | | | | | | | | | |
| **A. FSM NDU** | | | | | | | | | | | | | | | | |
| Project steering committee, travel costs | meeting | 1 | 2 | 2 | 2 | 2 | 1 | 10 | 4,000 | 4 | 8 | 8 | 9 | 9 | 4 | 42 |
| Project steering committee, meeting costs | meeting | 1 | 2 | 2 | 2 | 2 | 1 | 10 | 2,000 | 2 | 4 | 4 | 4 | 4 | 2 | 21 |
| Travel costs to attend the CPCU steering committee meeting | per meeting | 1 | - | 1 | - | - | 1 | 3 | 3,000 | 3 | - | 3 | - | - | 3 | 10 |
| IT equipment | Lumpsum | 1 | - | - | 1 | - | - | 2 | 10,000 | 10 | - | - | 11 | - | - | 21 |
| Audit | Per audit | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 8,000 | 8 | 8 | 8 | 9 | 9 | 9 | 51 |
| **Subtotal** | | | | | | | | | | 27 | 21 | 24 | 32 | 22 | 19 | 145 |
| **B. Kiribati NDU** | | | | | | | | | | | | | | | | |
| Project steering committee, travel costs | meeting | 1 | 2 | 2 | 2 | 2 | 1 | 10 | 4,000 | 4 | 8 | 8 | 9 | 9 | 4 | 42 |
| Project steering committee, meeting costs | meeting | 1 | 2 | 2 | 2 | 2 | 1 | 10 | 2,000 | 2 | 4 | 4 | 4 | 4 | 2 | 21 |
| Travel costs to attend the CPCU steering committee meeting | per meeting | 1 | - | 1 | - | - | 1 | 3 | 3,000 | 3 | - | 3 | - | - | 3 | 10 |
| IT equipment | Lumpsum | 1 | - | - | 1 | - | - | 2 | 10,000 | 10 | - | - | 11 | - | - | 21 |
| Audit | Per audit | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 8,000 | 8 | 8 | 8 | 9 | 9 | 9 | 51 |
| **Subtotal** | | | | | | | | | | 27 | 21 | 24 | 32 | 22 | 19 | 145 |
| **C. RMI NDU** | | | | | | | | | | | | | | | | |
| Project steering committee, travel costs | meeting | 1 | 2 | 2 | 2 | 2 | 1 | 10 | 4,000 | 4 | 8 | 8 | 9 | 9 | 4 | 42 |
| Project steering committee, meeting costs | meeting | 1 | 2 | 2 | 2 | 2 | 1 | 10 | 2,000 | 2 | 4 | 4 | 4 | 4 | 2 | 21 |
| Travel costs to attend the CPCU steering committee meeting | per meeting | 1 | - | 1 | - | - | 1 | 3 | 3,000 | 3 | - | 3 | - | - | 3 | 10 |
| IT equipment | Lumpsum | 1 | - | - | 1 | - | - | 2 | 10,000 | 10 | - | - | 11 | - | - | 21 |
| Audit | Per audit | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 8,000 | 8 | 8 | 8 | 9 | 9 | 9 | 51 |
| **Subtotal** | | | | | | | | | | 27 | 21 | 24 | 32 | 22 | 19 | 145 |
| **D. Tuvalu NDU** | | | | | | | | | | | | | | | | |
| Project steering committee, travel costs | meeting | 1 | 2 | 2 | 2 | 2 | 1 | 10 | 4,000 | 4 | 8 | 8 | 9 | 9 | 4 | 42 |
| Project steering committee, meeting costs | meeting | 1 | 2 | 2 | 2 | 2 | 1 | 10 | 2,000 | 2 | 4 | 4 | 4 | 4 | 2 | 21 |
| Travel costs to attend the CPCU steering committee meeting | per meeting | 1 | - | 1 | - | - | 1 | 3 | 3,000 | 3 | - | 3 | - | - | 3 | 10 |
| IT equipment | Lumpsum | 1 | - | - | 1 | - | - | 2 | 10,000 | 10 | - | - | 11 | - | - | 21 |
| Audit | Per audit | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 8,000 | 8 | 8 | 8 | 9 | 9 | 9 | 51 |
| **Subtotal** | | | | | | | | | | 27 | 21 | 24 | 32 | 22 | 19 | 145 |
| **Total Investment Costs** | | | | | | | | | | 109 | 82 | 97 | 129 | 87 | 76 | 580 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **II. Recurrent Costs** | | | | | | | | | | | | | | | | |
| **A. FSM NDU** | | | | | | | | | | | | | | | | |
| Technical manager, including planning, M&E and KM | Per month | 12 | 12 | 12 | 12 | 12 | 18 | 78 | 2,500 | 30 | 31 | 32 | 32 | 33 | 50 | 208 |
| Social Security | Per month | 12 | 12 | 12 | 12 | 12 | 18 | 78 | 500 | 6 | 6 | 6 | 6 | 7 | 10 | 42 |
| Finance and procurement officer | monthly salary | 12 | 12 | 12 | 12 | 12 | 12 | 72 | 1,500 | 18 | 19 | 19 | 19 | 20 | 20 | 115 |
| Social Security | Per month | 12 | 12 | 12 | 12 | 12 | 12 | 72 | 300 | 4 | 4 | 4 | 4 | 4 | 4 | 23 |
| Domestic travel costs for NDU | Lumpsum | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 10,000 | 10 | 10 | 11 | 11 | 11 | 11 | 64 |
| Recurrent costs (i.e.utilities) | Lumpsum | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 5,000 | 5 | 5 | 5 | 5 | 5 | 6 | 32 |
| Internet and communication forfait | lumpsum | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 3,000 | 3 | 3 | 3 | 3 | 3 | 3 | 19 |
| **Subtotal** | | | | | | | | | | 76 | 78 | 79 | 81 | 83 | 104 | 502 |
| **B. Kiribati NDU** | | | | | | | | | | | | | | | | |
| Technical manager, including planning, M&E and KM | Per month | 12 | 12 | 12 | 12 | 12 | 18 | 78 | 2,500 | 30 | 31 | 32 | 32 | 33 | 50 | 208 |
| Social Security | Per month | 12 | 12 | 12 | 12 | 12 | 18 | 78 | 500 | 6 | 6 | 6 | 6 | 7 | 10 | 42 |
| Finance and procurement officer | monthly salary | 12 | 12 | 12 | 12 | 12 | 12 | 72 | 1,500 | 18 | 19 | 19 | 19 | 20 | 20 | 115 |
| Social Security | Per month | 12 | 12 | 12 | 12 | 12 | 12 | 72 | 300 | 4 | 4 | 4 | 4 | 4 | 4 | 23 |
| Domestic travel costs for NDU | Lumpsum | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 10,000 | 10 | 10 | 11 | 11 | 11 | 11 | 64 |
| Recurrent costs (i.e.utilities) | Lumpsum | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 5,000 | 5 | 5 | 5 | 5 | 5 | 6 | 32 |
| Internet and communication forfait | lumpsum | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 3,000 | 3 | 3 | 3 | 3 | 3 | 3 | 19 |
| **Subtotal** | | | | | | | | | | 76 | 78 | 79 | 81 | 83 | 104 | 502 |
| **C. RMI NDU** | | | | | | | | | | | | | | | | |
| Technical manager, including planning, M&E and KM | Per month | 12 | 12 | 12 | 12 | 12 | 18 | 78 | 2,500 | 30 | 31 | 32 | 32 | 33 | 50 | 208 |
| Social Security | Per month | 12 | 12 | 12 | 12 | 12 | 18 | 78 | 500 | 6 | 6 | 6 | 6 | 7 | 10 | 42 |
| Finance and procurement officer | monthly salary | 12 | 12 | 12 | 12 | 12 | 12 | 72 | 1,500 | 18 | 19 | 19 | 19 | 20 | 20 | 115 |
| Social Security | Per month | 12 | 12 | 12 | 12 | 12 | 12 | 72 | 300 | 4 | 4 | 4 | 4 | 4 | 4 | 23 |
| Domestic travel costs for NDU | Lumpsum | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 10,000 | 10 | 10 | 11 | 11 | 11 | 11 | 64 |
| Recurrent costs (i.e.utilities) | Lumpsum | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 5,000 | 5 | 5 | 5 | 5 | 5 | 6 | 32 |
| Internet and communication forfait | lumpsum | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 3,000 | 3 | 3 | 3 | 3 | 3 | 3 | 19 |
| **Subtotal** | | | | | | | | | | 76 | 78 | 79 | 81 | 83 | 104 | 502 |
| **D. Tuvalu NDU** | | | | | | | | | | | | | | | | |
| Technical manager, including planning, M&E and KM | Per month | 12 | 12 | 12 | 12 | 12 | 18 | 78 | 2,500 | 30 | 31 | 32 | 32 | 33 | 50 | 208 |
| Social Security | Per month | 12 | 12 | 12 | 12 | 12 | 18 | 78 | 500 | 6 | 6 | 6 | 6 | 7 | 10 | 42 |
| Finance and procurement officer | monthly salary | 12 | 12 | 12 | 12 | 12 | 12 | 72 | 1,500 | 18 | 19 | 19 | 19 | 20 | 20 | 115 |
| Social Security | Per month | 12 | 12 | 12 | 12 | 12 | 12 | 72 | 300 | 4 | 4 | 4 | 4 | 4 | 4 | 23 |
| Domestic travel costs for NDU | Lumpsum | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 10,000 | 10 | 10 | 11 | 11 | 11 | 11 | 64 |
| Recurrent costs (i.e.utilities) | Lumpsum | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 5,000 | 5 | 5 | 5 | 5 | 5 | 6 | 32 |
| Internet and communication forfait | lumpsum | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 3,000 | 3 | 3 | 3 | 3 | 3 | 3 | 19 |
| **Subtotal** | | | | | | | | | | 76 | 78 | 79 | 81 | 83 | 104 | 502 |
| **Total Recurrent Costs** | | | | | | | | | | 305 | 312 | 318 | 324 | 331 | 418 | 2,007 |
| **Total** | | | | | | | | | | 415 | 394 | 414 | 453 | 418 | 493 | 2,587 |

North Pacific
Small Islands Food and Water Project (SIFWaP)
Table 4.3. Sub-Component 4.3: M&E and Knowledge Management
**Detailed Costs**

| | | Quantities | | | | | | | Unit Cost | Totals Including Contingencies (US$ '000) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Unit | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | Total | (US$) | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | Total |
| **I. Investment Costs** | | | | | | | | | | | | | | | | |
| TA for M&E | Lumpsum | 1 | 1 | - | 1 | - | - | 3 | 15,000 | 15 | 15 | - | 16 | - | - | 47 |
| Capacity building for M&E, training for IFs | per country | 4 | - | 4 | - | - | - | 8 | 5,000 | 20 | - | 21 | - | - | - | 41 |
| M&E training, other | Per country | 4 | - | 4 | - | - | - | 8 | 5,000 | 20 | - | 21 | - | - | - | 41 |
| Midline survey | Lumpsum | - | - | 1 | - | - | - | 1 | 20,000 | - | - | 21 | - | - | - | 21 |
| Endline survey | Lumpsum | - | - | - | - | - | 1 | 1 | 30,000 | - | - | - | - | - | 33 | 33 |
| Focus groups for endline | Lumpsum | - | - | - | - | - | 1 | 1 | 2,000 | - | - | - | - | - | 2 | 2 |
| Knowledge Management Products or M&E studies | lumpsm | - | 1 | 1 | 1 | 1 | 1 | 5 | 3,000 | - | 3 | 3 | 3 | 3 | 3 | 16 |
| **Total Investment Costs** | | | | | | | | | | 56 | 19 | 66 | 19 | 3 | 39 | 202 |
| **II. Recurrent Costs** | | | | | | | | | | | | | | | | |
| **A. Transport for M&E staff** | | | | | | | | | | | | | | | | |
| FSM | lumpsum | 0.5 | 1 | 1 | 1 | 1 | 1 | 5.5 | 3,000 | 2 | 3 | 3 | 3 | 3 | 3 | 18 |
| Kiribati | lumpsum | 0.5 | 1 | 1 | 1 | 1 | 1 | 5.5 | 3,000 | 2 | 3 | 3 | 3 | 3 | 3 | 18 |
| RMI | lumpsum | 0.5 | 1 | 1 | 1 | 1 | 1 | 5.5 | 3,000 | 2 | 3 | 3 | 3 | 3 | 3 | 18 |
| Tuvalu | lumpsum | 0.5 | 1 | 1 | 1 | 1 | 1 | 5.5 | 3,000 | 2 | 3 | 3 | 3 | 3 | 3 | 18 |
| **Total Recurrent Costs** | | | | | | | | | | 6 | 12 | 13 | 13 | 13 | 13 | 70 |
| **Total** | | | | | | | | | | 62 | 31 | 79 | 32 | 16 | 52 | 272 |

## Annex 4: Economic and Financial Analysis

### Introduction

This Annex summarises the methodology and results of the Economic and Financial Analysis (EFA) prepared for the Project. First, expected project benefits are presented along with an overview of the distribution of project beneficiaries in each participating country. This is followed by a description of the financial models, their methodology and assumptions, and results of the financial analysis. The overall project EFA is then presented, including a sensitivity analysis.

### Project Benefits

The development objective of SIFWaP is to improve food, nutrition and water security and livelihood opportunities for the island communities of the four countries. To achieve this objective, the project will generate tangible and intangible benefits through the provision of training that builds the community's capacity, and by leveraging investment in expanded home gardens for crop, livestock farming and in public infrastructure, particularly rainwater harvesting systems. The main tangible benefits will accrue from:

(i) increased food availability and a more diverse diet through the adoption of home gardening and livestock activities;

(ii) reduced household dependence and expenditure on imported food;

(iii) income generation opportunities for rural households to sell occasional production surpluses;

(iv) reduced incidence of water-borne diseases as a result of better access to safe water sources; and

(v) time saved on water collection which can be used on other productive activities.

The project will also create employment opportunities for workers involved in the construction and installation of rainwater harvesting systems in each country, and within each community for the upkeep and maintenance of these systems.

### Project Beneficiaries

The project will be implemented in 200 communities across the four countries, reaching 8,000 households or about 50,000 people – representing about 17% of the population.

| | Population ('000) | Targeted H/H | Average H/H size | No. of communities | Total Beneficiaries |
|---|---|---|---|---|---|
| FSM | 105 | 2 794 | 6.0 | 70 | 16 764 |
| Kiribati | 115 | 2 794 | 6.2 | 70 | 17 323 |
| RMI | 55 | 1 651 | 6.8 | 41 | 11 227 |
| Tuvalu | 11 | 761 | 6.5 | 19 | 4 947 |
| **Total** | **286** | **8 000** | **6.4** | **200** | **50 260** |

Using agreed targeting criteria, and following an inclusive consultative process, the project will ensure vulnerable households and individuals within communities benefit from project activities. Targeting within the countries will entail targeting the beneficiary islands in the first stage and the beneficiary communities within these islands in the second stage, but only for larger islands. For small islands (circa 300 households per island or less), all communities within the island will be targeted. For larger islands (e.g. Funafuti in Tuvalu), community targeting within the island will ensure the participation of the target group. It has been estimated that the average number of households per community is around 40.

Based on an adoption rate of 75% for agricultural activities, approximately 3,848 households are expected to be actively involved in home gardening and a further 150 households in smallholder piggery production. Assuming an adoption rate of 90% for water-related activities, approximately 180 communities are expected to benefit from community rainwater harvesting systems.

**Number of Beneficiaries – Home Gardens**

| | FSM | Kiribati | RMI | Tuvalu | Total |
|---|---|---|---|---|---|
| No of communities | 70 | 70 | 41 | 19 | 200 |
| Home gardens per community | 26 | 25 | 26 | 26 | |
| No of target households | 1,820 | 1,750 | 1,066 | 494 | 5,130 |
| No of beneficiary households (75% adoption) | 1,366 | 1,312 | 800 | 370 | 3,848 |

**Number of Beneficiaries – Smallholder Piggery**

| | FSM | Kiribati | RMI | Tuvalu | Total |
|---|---|---|---|---|---|
| No of communities | 70 | 70 | 41 | 19 | 200 |
| Smallholder piggeries per community | 1 | 1 | 1 | 1 | |
| No of target households | 70 | 70 | 41 | 19 | 200 |
| No of beneficiary households (75% adoption) | 52 | 52 | 31 | 15 | 150 |

**Number of Beneficiaries – Rainwater Harvesting**

| | FSM | Kiribati | RMI | Tuvalu | Total |
|---|---|---|---|---|---|
| No of communities | 70 | 70 | 41 | 19 | 200 |
| No of standalone rainwater harvesting systems (Target) | 35 | 35 | 20 | 9 | 99 |
| No of steel rainwater harvesting tank systems (Target) | 35 | 35 | 21 | 10 | 101 |
| No of beneficiary households (Target) | 2,730 | 2,730 | 1,599 | 741 | 7,800 |
| No of standalone rainwater harvesting systems installed (90% adoption rate) | 31 | 31 | 18 | 9 | 80 |
| No of steel rainwater harvesting tank system installed (90% adoption rate) | 31 | 31 | 19 | 10 | 81 |
| No of beneficiary households (90% adoption rate) | 2,418 | 2,418 | 1,443 | 741 | 7,020 |

**Phasing of household beneficiaries**

The community engagement process will be the entry point for project activities. It will lay a foundation for community planning and prioritisation thus paving the way for investment in food and nutrition activities, and water infrastructure. Project investment in water infrastructure and food and nutrition activities are therefore envisaged in Year 4 and 5 of the project.

**Number of Beneficiary Households by Project Activity and Project Year**

| | Yr1 | Yr2 | Yr3 | Yr4 | Yr5 | Yr6 |
|---|---|---|---|---|---|---|
| **Community engagement** | | | | | | |
| FSM | 931 | 931 | 932 | - | - | - |
| Kiribati | 931 | 931 | 932 | - | - | - |
| RMI | 550 | 550 | 551 | - | - | - |
| Tuvalu | 253 | 254 | 254 | - | - | - |
| **Total** | **2,665** | **2,666** | **2,669** | **-** | **-** | **-** |
| **Rainwater harvesting infrastructure** | | | | | | |
| FSM | - | - | - | 1,170 | 1,248 | - |
| Kiribati | - | - | - | 1,170 | 1,248 | - |
| RMI | - | - | - | 702 | 741 | - |
| Tuvalu | - | - | - | 351 | 390 | - |
| **Total** | **-** | **-** | **-** | **3,393** | **3,627** | **-** |
| **Home gardens** | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| FSM | - | - | - | 683 | 683 | - |
| Kiribati | - | - | - | 656 | 656 | - |
| RMI | - | - | - | 400 | 400 | - |
| Tuvalu | - | - | - | 185 | 185 | - |
| **Total** | **-** | **-** | **-** | **1,924** | **1,924** | **-** |
| **Smallholder Piggeries** | | | | | | |
| FSM | - | - | - | 26 | 26 | - |
| Kiribati | - | - | - | 26 | 26 | - |
| RMI | - | - | - | 15 | 16 | - |
| Tuvalu | - | - | - | 7 | 8 | - |
| **Total** | | | | **76** | **76** | |
| **Total HHs** | **2,665** | **2,666** | **2,669** | **5,393** | **5,627** | |

## Financial Models

The financial analysis is based on seven models: (i) a basic home garden model for each country; (ii) a generic model of a smallholder piggery operation; and (iii) two models of different rainwater harvesting options. Given the open menu of potential investments, these activities have been assessed as the most likely investments the majority of the targeted beneficiaries may potentially select.

## Home garden models – description and assumptions

The home garden model has been constructed to illustrate a typical household in each country. The Without Project (WoP) scenario involves a household that plants the four most common household staple crops of each country and consumes 90% of crops harvested. Through the project, each household is introduced to the cultivation of four new crops, namely Chinese cabbage, pumpkin, tomatoes, and eggplant. These crops are among the most common seedlings distributed to farmers in four countries by various agricultural programmes implemented by government or development partners. The new crops produced are fully consumed by the household initially for the first two years to support family nutrition. Thereafter, as production increases, up to 40% of production is considered surplus to the household's needs and sold to supplement family income.
The four most common household staple crops chosen for each country are outlined below:

| FSM | Kiribati | RMI | Tuvalu |
|---|---|---|---|
| Breadfruit | Sweet potato | Sweet potato | Breadfruit |
| Coconut | Breadfruit | Breadfruit | Coconut |
| Taro | Coconut | Taro | Swamp taro |
| Banana | Taro | Pandanus | Pandanus |

In the absence of data on farming systems and crop models for each country, the Fiji Crop Farmers Guide 2017 and Fiji Farm Management Budget Manual 2014 were used as a guide for farming systems and yield. The lower bound of yields has been taken for each crop taking into account the soil conditions of the atoll countries. The yields adopted for each crop, including the introduced cash crops are outlined below:

| | Lower band of yield from Fiji | Fiji Crop Farmers Guide 2017 |
|---|---|---|
| **Existing crops:** | | |
| Banana | 1 bunch of bananas per tree (40 kg) | 1 bunch per sucker a year. 2 suckers per tree |
| Breadfruit | 166 fruits per year (2 kg per fruit) | 60 trees/ha produce 20-40 mt per year (330-670 kg/tree/yr: 167-333 fruits/tree/yr) |
| Coconut | 31 nuts per tree (1.4 kg/nut) | 123 trees/ha; yield 0.7-1.3 mt/dried copra/ha. (approx. 5500 nuts/tonne dried copra i.e. yield approx. 31-58 nuts/tree) |
| Taro | 2 kg per plant | 10,000 suckers/ha yield 20-25 mt per year |
| Sweet potato | 1 plant produces 3 slips | One plant produces 3 to 5 slips |

| | | |
|---|---|---|
| Swamp taro | 2 kg per plant | 10,000 suckers/ha yield 20-25mt per year |
| Pandanus | 8 fruits/tree/yr (10 kg per fruit) | 8-12 fruits/tree/yr |
| **Introduced crops:** | | |
| Chinese cabbage | 1 cabbage head per plant. | |
| Pumpkin | 3 pumpkins per plant | |
| Tomatoes | 30 kg of tomatoes per plant i.e. 150 g per tomato | |
| Eggplant | 4 eggplants per plant | |

The plot size of a typical home garden for the cultivation of the introduced/new crops was adopted from the IFAD funded Kiribati Outer Island Food & Water Project of 12 square meters. This plot size was assumed for Kiribati and Tuvalu, given their relatively smaller land mass. For FSM and RMI, a typical home garden plot size of 24 square meters was assumed. As a result of the project intervention, the analysis assumes that householders will double the size of their home garden plot in Year 2 which will result in higher crop production from Year 3.

The composition of crops planted in each typical home garden along with potential annual yields for each crop are outlined below:

| | **No. of plants** | **Yield/plant (number)** | **Cycles** | **Annual Yield (number)** | **Annual Yield (lbs)** |
|---|---|---|---|---|---|
| Country: **FSM** Home garden plot size: 24 sq.m (Without project) | | | | | |
| **Existing crops:** | | | | | |
| Banana | 6 | 1 | 1 | 6 | 540 |
| Breadfruit | 6 | 166 | 1 | 996 | 4382.4 |
| Coconut | 20 | 31 | 1 | 620 | 1860 |
| Taro | 200 | 1 | 1 | 200 | 880 |
| **Introduced crops:** | | | | | |
| Chinese cabbage | 30 | 1 | 3 | 90 | 180 |
| Pumpkin | 6 | 2 | 2 | 24 | 168 |
| Tomatoes | 9 | 100 | 1 | 900 | 297 |
| Eggplant | 15 | 4 | 3 | 180 | 225 |

| | **No. of plants** | **Yield/plant (number)** | **Cycles** | **Annual Yield (number)** | **Annual Yield (lbs)** |
|---|---|---|---|---|---|
| Country: **Kiribati** Home garden plot size: **12sq.m (Without project)** | | | | | |
| **Existing crops:** | | | | | |
| Sweet potato | 30 | 3 | 1 | 90 | 90 |
| Breadfruit | 3 | 166 | 1 | 498 | 2191.2 |
| Coconut | 10 | 31 | 1 | 310 | 930 |
| Swamp taro | 30 | 1 | 1 | 30 | 132 |
| **Introduced crops:** | | | | | |
| Chinese cabbage | 16 | 1 | 3 | 48 | 96 |
| Pumpkin | 3 | 2 | 2 | 12 | 84 |
| Tomatoes | 6 | 100 | 1 | 600 | 198 |
| Eggplant | 10 | 4 | 3 | 120 | 150 |

| | **No. of plants** | **Yield/plant (number)** | **Cycles** | **Annual Yield (number)** | **Annual Yield (lbs)** |
|---|---|---|---|---|---|
| Country: **RMI** Home garden plot size: **24sq.m (Without project)** | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| **Existing crops:** | | | | | |
| Sweet potato | 100 | 3 | 1 | 300 | 300 |
| Breadfruit | 6 | 166 | 1 | 996 | 4382.4 |
| Pandanus | 10 | 8 | 1 | 80 | 1760 |
| Taro | 200 | 1 | 1 | 200 | 880 |
| **Introduced crops:** | | | | | |
| Chinese cabbage | 30 | 1 | 3 | 90 | 180 |
| Pumpkin | 6 | 2 | 2 | 24 | 168 |
| Tomatoes | 9 | 100 | 1 | 900 | 297 |
| Eggplant | 15 | 4 | 3 | 180 | 225 |

| | **No. of plants** | **Yield/plant (number)** | **Cycles** | **Annual Yield (number)** | **Annual Yield (lbs)** |
|---|---|---|---|---|---|
| Country: **Tuvalu** Home garden plot size: **12sq.m (Without project)** | | | | | |
| **Existing crops:** | | | | | |
| Sweet potato | 30 | 3 | 1 | 90 | 90 |
| Breadfruit | 3 | 166 | 1 | 498 | 2191.2 |
| Coconut | 10 | 31 | 1 | 310 | 930 |
| Pandanus | 10 | 8 | 1 | 80 | 1760 |
| **Introduced crops:** | | | | | |
| Chinese cabbage | 16 | 1 | 3 | 48 | 96 |
| Pumpkin | 3 | 2 | 2 | 12 | 84 |
| Tomatoes | 6 | 100 | 1 | 600 | 198 |
| Eggplant | 10 | 4 | 3 | 120 | 150 |

Actual household production of existing crops has been adjusted to 60% of potential annual yields for each crop to establish a baseline for technical knowhow and farm productivity at the household level. Through participation in project organised technical training and knowledge sharing, production of existing crops is assumed to increase by up to 20% within five years. For the newly introduced crops, annual production is initially estimated at 35% of potential yields and gradually increase to 60% of potential yields within four years as household farming practices and technical knowhow improves.

From the farm to the market for sale or for home consumption, post-harvest losses occur. The WoP scenario assumes post-harvest losses of 45% for household home gardens. Through the exposure of households to technical training and peer learning, these post-harvest losses are projected to decrease in the With Project scenario to 25% within five years.

The model adopts the following assumptions for annual yields, production growth, post-harvest losses and marketing of produce:

| **Without Project** | **Yr1** | **Yr2** | **Yr3** | **Yr4** | **Yr5** | **Yr6** |
|---|---|---|---|---|---|---|
| % of potential yield realised (existing crops) | 60% | 60% | 60% | 60% | 60% | 60% |
| Post-harvest loss | 45% | 45% | 45% | 45% | 45% | 45% |
| Home consumption | 100% | 100% | 100% | 100% | 100% | 100% |
| **With Project** | | | | | | |
| Annual improvement in production for existing crops due to training provided by project | 10% | 10% | 15% | 15% | 20% | 20% |
| % of potential yield realised (new crops) | 35% | 45% | 55% | 60% | 60% | 60% |
| Post-harvest loss (reduced due to project intervention) | 45% | 40% | 35% | 30% | 25% | 45% |

| | | | | | | |
|---|---|---|---|---|---|---|
| Increase in potential yield from doubling of plot size for new crops | | | 40% | 50% | 55% | 60% |
| Home consumption | 100% | 100% | 90% | 80% | 70% | 60% |

Farm labour is provided by household members and is assumed to involve at least one hour/day for six days a week in the WoP scenario. With a larger plot size and equipped with the technical knowledge to better manage their home gardens as a result of project activities, labour input is assumed to increase to 1.5 hours/day for six days a week in the with-project scenario. The labour input has been valued using the unskilled/farm labour hourly rate in each country. The opportunity cost of spending an additional 0.5 hours/day worked in the home garden has been estimated at 80% of the unskilled/farm labour hourly rate. The hourly rates adopted for labour in each country is outlined below:

| | **FSM** | **Kiribati** | **RMI** | **Tuvalu** |
|---|---|---|---|---|
| Hourly rate (US$) | 2.65 | 2.50 | 3.50 | 1.30 |

To support households in the cultivation and expansion of their home gardens, the project will provide each household with basic farms tools equivalent to a cost of US$ 200. The package of tools will include a spade, hoe, shovel, knife and a wheelbarrow. In addition to the investment in farm tools, the other costs incurred in the models relate to input costs. These are outlined below:

| | **US$/ Unit** | **FSM** | **Kiribati** | **RMI** | **Tuvalu** |
|---|---|---|---|---|---|
| Sweet potato cuttings | plants | | 1.41 | 0.10 | 1.41 |
| Banana cuttings | plants | 0.10 | 0.70 | 0.10 | 1.41 |
| Breadfruit cuttings | plants | 0.10 | 1.76 | 0.10 | 28.12 |
| Seed nuts | nuts | 0.10 | 0.70 | 0.10 | 1.41 |
| Taro cuttings | plants | 0.10 | 0.70 | 0.10 | 1.41 |
| Pandanus cutting | plants | - | 0.70 | 0.10 | 1.41 |
| Cabbage seedlings | pkt | 5.00 | 5.00 | 5.00 | 5.00 |
| Tomato seedlings | pkt | 5.00 | 5.00 | 5.00 | 5.00 |
| Eggplant seedlings | pkt | 5.00 | 5.00 | 5.00 | 5.00 |
| Pumpkin seedlings | pkt | 5.00 | 5.00 | 5.00 | 5.00 |
| Compost (pig manure) | 20lbs bag | 5.00 | 5.00 | 5.00 | 5.00 |

The surplus production from each household home garden is envisaged to be sold in formal and informal/roadside markets. The prices adopted by the analysis for the various crops are outlined below:

| | **US$/ Unit** | **FSM** | **Kiribati** | **RMI** | **Tuvalu** |
|---|---|---|---|---|---|
| Sweet potato | lbs | - | 3.16 | 2.29 | 1.41 |
| Breadfruit | lbs | 0.75 | 1.05 | 0.75 | 2.11 |
| Coconut | lbs | 0.35 | 1.41 | 0.50 | 1.41 |
| Taro (swamp taro) | lbs | - | 1.41 | - | 5.62 |
| Taro | lbs | 0.75 | - | 2.50 | 3.51 |
| Pandanus | lbs | - | - | 1.00 | 3.51 |
| Banana | lbs | 0.50 | - | 1.25 | 2.11 |
| Chinese Cabbage | lbs | 1.50 | 2.46 | 1.50 | 2.11 |
| Tomatoes | lbs | 2.50 | 3.66 | 2.30 | 5.62 |
| Eggplant | lbs | 1.50 | 2.11 | 3.99 | 2.11 |
| Pumpkin | lbs | 0.95 | 2.81 | 2.00 | 1.76 |

**Methodology**

The WoP scenario includes costs and benefits of planting the existing four staples identified for each country. The with project scenario involves accounting for costs associated with inputs for the four new cash crops introduced to the household home garden, in addition to the continued cultivation of the four staple crops. The opportunity cost of the additional labour time are factored in. The benefits in the model include the value of production consumed at home or sold in the market. Crop production consumed at home is valued at

market prices. For all the models, initial investment in farm tools, takes place in Year 1 and benefits also start accruing in Year 1 as existing staples continue to be cultivated. However, the production of new cash crops is assumed to begin with 35% of the annual potential yield.

**Home garden – results of financial analysis**

In assessing the cost and benefit stream over a 10-year period, all home garden models returned a positive net present value indicating a net positive outcome in household welfare generated by the project. Over the 10-year period, households are expected to generate an average incremental income per year of US$830.40 in FSM, US$747.03 per year in Kiribati, US$1490.57 per year in RMI and US$2336.66 per year in Tuvalu. The incremental income earned is driven by increased production of staple crops as well as the production of new cash crops that were introduced to the households.

Summarised in the table below are the incremental crop production generated by the households to meet their nutritional needs as well as generate income through the market sales.

| | FSM | Kiribati | RMI | Tuvalu |
|---|---|---|---|---|
| Banana | **113.4** | - | - | - |
| Home consumption | 102.1 | - | - | - |
| Sales | 11.3 | - | - | - |
| Sweet potato | - | **18.9** | **63.0** | **18.9** |
| Home consumption | - | 17.0 | 56.7 | 17.0 |
| Sales | - | 1.9 | 6.3 | 1.9 |
| Breadfruit | **920.3** | **460.2** | **920.3** | **460.2** |
| Home consumption | 828.3 | 414.1 | 828.3 | 414.1 |
| Sales | 92.0 | 46.0 | 92.0 | 46.0 |
| Coconut | **390.6** | **195.3** | - | **195.3** |
| Home consumption | 351.5 | 175.8 | - | 175.8 |
| Sales | 39.1 | 19.5 | - | 19.5 |
| Taro (swamp taro) | - | **27.7** | - | - |
| Home consumption | - | 24.9 | - | - |
| Sales | - | 2.8 | - | - |
| Taro | **184.8** | - | **184.8** | - |
| Home consumption | 166.3 | - | 166.3 | - |
| Sales | 18.5 | - | 18.5 | - |
| Pandanus | - | - | **369.6** | **369.6** |
| Home consumption | - | - | 332.6 | 332.6 |
| Sales | - | - | 37.0 | 37.0 |
| Chinese Cabbage | **129.6** | **69.1** | **129.6** | **69.1** |
| Home consumption | 77.8 | 41.5 | 77.8 | 41.5 |
| Sales | 51.8 | 27.6 | 51.8 | 27.6 |
| Tomatoes | **213.8** | **142.6** | **213.8** | **142.6** |
| Home consumption | 128.3 | 85.5 | 128.3 | 85.5 |
| Sales | 85.5 | 57.0 | 85.5 | 57.0 |
| Eggplant | **162.0** | **108.0** | **162.0** | **108.0** |
| Home consumption | 97.2 | 64.8 | 97.2 | 64.8 |
| Sales | 64.8 | 43.2 | 64.8 | 43.2 |
| Pumpkin | **121.0** | **60.5** | **121.0** | **60.5** |
| Home consumption | 72.6 | 36.3 | 72.6 | 36.3 |
| Sales | 48.4 | 24.2 | 48.4 | 24.2 |

The availability of traditional staple crops for consumption is expected to increase. For example, as a staple crop for all four countries, an additional 920 lbs of breadfruit harvested each year is expected to be available to each household in FSM and RMI, and 460 lbs for each household in Kiribati and Tuvalu. This translates into an additional 828 lbs becoming available for home consumption for households in FSM and RMI, and 414 lbs for households in Kiribati and Tuvalu. The surplus breadfruit production sold at local or

informal markets is expected to generate an additional income of approximately US$ 92 for households in FSM and RMI, and US$ 46 for households in Kiribati and Tuvalu.

For coconut, which is a common staple for three countries, an additional 390 lbs of coconuts are expected to be available to each household in FSM each year, and 195 lbs for households in Kiribati and Tuvalu. This translates into an additional 351 lbs becoming available for home consumption for households in FSM, and 175 lbs for households in Kiribati and Tuvalu. The surplus coconut production sold at local or informal markets is expected to generate an additional income of approximately US$39 for households in FSM, and US$19 for households in Kiribati and Tuvalu.

The four cash crops introduced into the household home gardens are expected to contribute 375 lbs of assorted produce per year to supplement household nutritional needs in FSM and an additional income of US$ 435 per year. For Kiribati, 228 lbs of assorted produce per year will be available to households for home consumption and the surplus will generate an additional income of US$ 435. For households in RMI, an additional 375 lbs of assorted produce per year will be available for home consumption and the surplus will generate additional income of US$ 630. Finally, for Tuvalu, 228 lbs of assorted produce per year will be available to households for home consumption and the surplus will generate an additional income of US$513 per year.

The results of the financial analysis conclude that the interventions are profitable for all beneficiary groups with positive net present values (NPV) generated at a discount rate of 10%. For FSM, an NPV of US$ 4,422 was generated with an internal rate of return (IRR) of 76%. For Kiribati, an NPV of US$ 3,959 was generated with an IRR of 72%. For RMI, an NPV of US$ 8,190 was generated with an IRR of 116%, and for Tuvalu, an NPV of US$ 12,917 was generated with an IRR of 122%.

**Smallholder Piggery – description and assumptions**

Almost all households in the four countries keep some form of livestock, the most common being pigs. The WoP scenario assumes a household with 1 boar and 1 sow. The household replaces the sow and boar every five years. The sow is assumed to produce 6 piglets each year of which, based on a mortality rate of 30% (main threat is attack by wild dogs, disease and poor nutrition), only five piglets are weaned and reach the size to be consumed or sold at the end of the year. For the purpose of the analysis, it is assumed that households consume 75% of piglets and sell the remaining 25%. Household pigs are free ranging and household labour requirement is negligible and is assumed to be 20% of with project labour input. It is assumed that the pigs receive only 30% of the daily feed requirement of 20kg of feed per day. Pigs feed on copra feed supplement, household leftovers (kitchen scraps, surplus breadfruit, coconuts, fish bones) and the scraps they forage. It is assumed that purchased copra feed supplements make up 10% of their total feed.

Through the project intervention, households are supported in the establishment a wooden pen that contains 6-pig pens for 5 sows and 1 boar. With this infrastructure, pig mortality is assumed to reduce to 10% with a total of 27 piglets each year weaned and reach the size for home consumption or being sold in the market. Household consumption is assumed at 30% while 70% is sold. For this model, it is assumed that households are able to only provide 20% of the daily feed requirement of 98kg, of which 70% of daily feed provided to pigs is purchased copra meal supplement. The remaining 30% of feed is from household scraps and scavenging. The management of the pig pen will require new household labour input of at least 30mins each day for seven days a week for feeding the pigs and cleaning the pens. Income foregone for the additional labour requirement has been assumed at 80% of labour cost. This model also allows households to produce pig manure, a beneficial by-product, which can be mixed with compost for use as fertiliser. Pig manure is produced at a rate of 1 gallon/pig/day (includes any wash water). It is

assumed that this model produces only 30% of this production rate based on lower daily feed intake. The sow and boar are replaced every 3 years.

The model assumes average weight of weaners when sold is 20 kg and culled adult is sold at 75 kg. An average price of US$ 4.20/kg is assumed.

| **Assumptions** | **Without Project** | **With Project** |
|---|---|---|
| Household stock | 1 sow, 1 boar | 5 sows, 1 boar |
| Piglets consumed or sold each year | 5 | 27 |
| Piglet mortality rate | 30% | 10% |
| Daily feed requirement | 20 kg | 98 kg |
| Actual feed consumed (% of daily requirement) | 30% | 20% |
| Purchased feed i.e. copra meal (% of total feed) | 10% | 70% |
| % of Weaners consumed | 75% | 30% |
| % of Weaners sold | 25% | 70% |

**Methodology**

The WoP scenario includes costs and benefits of a household maintaining 1 sow and 1 boar. The operation is basic with labour estimated at a fifth of the *with project* labour requirement. This translates into 36.4 hours per year which is mainly devoted to pig feeding. The other major costs are copra meal supplement and stock (boar and sow) replacement (which occur every five years in the WoP scenario and every 3 years in the *with project* scenario). The *with project* scenario involves investment costs for a new wooden 6-pen facility. The cost is estimated at US$ 100/square metre for a 24 square metre facility. Annual maintenance begins from Year 2 and is assumed at 5% of infrastructure cost. In addition to household labour, which is assumed at 1 hr/day, the opportunity cost of the additional time on the farm is also factored in as part of labour costs. The benefits include the value of pig production consumed at home and sold in the market. Weaned piglets are valued at US$ 84 and culled adults at US$ 315. Compost is included as an additional benefit for the facility from Year 2 which can be utilised on the household garden as fertiliser. However, the model does not include crop yield improvements or cost savings into the benefit stream, hence the benefits accruing to households are understated.

**Smallholder Piggery – results of financial analysis**

In assessing the cost and benefit stream over a 10-year period, the smallholder piggery model yields a positive NPV at a discount rate of 10% indicating a net positive outcome in household welfare. Households are expected to generate incremental income per year of US$ 377. The incremental income is driven by higher pig production with the additional four sows translating into 21 additional weaners sold annually. The model yields a financial IRR of 33% and NPV of US$ 1,646.

Household consumption more than doubles from 75 kg of pork consumed a year (3.75 piglets/year) prior to the project to 218 kg of pork consumed after the project (9 piglets and 0.5 culled adults/year).

**Water infrastructure systems – description and assumptions**

The analysis considers two types of water infrastructure interventions i.e. investment in a standalone rainwater harvesting (RWH) system and a 25,000L steel RWH tank. Both systems proposed involve community RWH infrastructure as opposed to individual household RWH systems. The water systems are intended to meet the community's water needs from drinking, cooking and tending their home gardens.

The standalone RWH system is a purpose-built structure that includes a new tank shed (10.4 m x 6.6 m), 4 x 10,000 L polyethylene rainwater tanks, guttering, fascia boards,

downpipes and metal roofing materials, and tap stand. The hydrology study undertaken by SPC27 noted that these standalone RWH systems provide additional communal storage, but have suffered from poor governance on the ownership, access, use, and responsibility for operation and maintenance in the past, thus limiting their effectiveness and sustainability. Following the Kiribati KOIFAWP model of Water User Groups (WUGs), SIFWaP will ensure a robust community mechanism for governance and management of the infrastructure that will be installed.

The second water infrastructure considered involves the installation of 25,000 L steel RWH tanks for the community, including guttering, fascia boards, downpipes and metal roofing materials, and tap stand. This system is less costly to set up for the community. The analysis assumes that communities will procure at least two 25,000 L tanks to meet their water needs.

The SPC study estimated the requirements for construction and installation of the standalone system. The same parameters were adapted to estimate the installation of the steel tank system as follows:

| | **Standalone RWH system** | **25,000L Steel RWH tank system** |
|---|---|---|
| Construction materials | US$ 20,500 | US$ 5,000 |
| **Installation Costs:** | | |
| Hire of crane truck | 6 days | 2 days |
| Transportation of materials | 1 day | 1 day |
| Travel for 8-member construction team | 2 days | 2 days |
| Per diem for 8-member construction team | 6 days | 2 days |

The benefits in the model relate to two areas i.e. firstly time saved by the household from water collection and reduction in sickness among household members from consumption of better water quality resulting in missing less days at work; and secondly, potential yield improvement in home gardens from better irrigation.

The benefits of time saved from water collection is calculated based on households taking on average two trips/day to collect water. In the wet season, it is assumed that households spend 10 minutes per trip per day to collect water for drinking and cooking. In the dry season, households take twice the amount of time per trip per day to collect water i.e. 20 minutes. The analysis assumes that the new water infrastructure will reduce the time taken by households in water collection by half during both the wet months and dry months of the year. Due to the absence of information on the household's water related activities, the analysis adopted the parameters used under Kiribati's KOIFWAP project. Time saving benefits assumed for all countries in water collection is outlined in the table below:

| | | **Without Project** | | **With Project** | |
|---|---|---|---|---|---|
| | **Trips/day** | **Time/mins** | **Months** | **Time/mins** | **Months** |
| Wet season | 2 | 10 | 7 | 5 | 7 |
| Dry season | 2 | 20 | 5 | 10 | 5 |
| Collection from wet season source (hours) | | 71 | | 35 | |
| Collection from dry season source (hours) | | 101 | | 51 | |
| Total hours per H/H per year | | 172 | | 86 | |
| Total days per H/H per year | | 22 | | 11 | |

Households also save time through members missing fewer days at work due to water-borne diseases. To assess this benefit, the analysis assessed the number of productive members of the household based on available labour force data for all countries. The analysis assumed that the improved access to clean and safe drinking water would reduce the incidence of water borne diseases by 75%.

27 Pacific Community 2021, Small Islands Food and Water Project SIFWaP - Preparatory study on water security and hydrology. Geoscience, Energy, Maritime Division – Pacific Community, Suva.

The second area of benefit is improvement in crop yields from the household's home garden due to improved irrigation. The additional water capacity allows households to set aside water for home gardening, in addition to drinking and cooking. A modest crop yield improvement of 7% is assumed.

Investment in water infrastructure is envisaged to be the most common public investment communities will prioritise given the common challenge of water availability and access amongst all four countries. Each water system is envisaged to supply a community of 39 households. Through the formation of WUGs, the community is expected to contribute to the maintenance and management of the infrastructure. Maintenance costs are estimated at 1% of infrastructure costs.

**Methodology**

The WoP scenario involves households utilising existing community water sources, most common of which would include a well or old water tanks. The *with project* scenario is constructed such that the costs and benefits of the new system are all incremental.

There are three major costs involved in each of the systems. First, the cost of construction material. Communities that choose a standalone RWH system will install a single system with a capacity of 40,000 L. Communities that choose the steel RWH tank system will install up to two 25,000 L tanks giving a total capacity of 50,000 L. Second, the labour cost involved in construction and installation, and third, the annual maintenance cost.

The benefits calculated in the model are derived from time saved from water collection activities (11 days), time saved from fewer days missing work (6.8-8.5 days) and an expected improvement in crop yield of 7% for household home gardens due to better irrigated crops.

**Water infrastructure systems – results of financial analysis**

The model estimates that households can potentially save 11 days per year from water collection activities which can be utilised in other productive activities. In addition, households can spend 6.8 to 8.5 fewer days per year of missing work due to improved access to safe drinking water. In total, households can save 17.5 to 19.2 days per year time that may potentially be used for productive or income generating activities.

In addition to time saved, households in all four countries can reap an additional income per year from yield improvements to their home gardens due to improved irrigation. Households in FSM can reap an additional US$ 61 per year, in Kiribati an additional US$ 50 per year, in RMI an additional US$ 116 per year and in Tuvalu and additional US$ 264 per year.

In assessing the cost and benefit stream over a 15-year period, the models return positive NPVs at a discount rate of 10% for both water infrastructure options in all four countries. Details for each country and model are outlined below:

**Standalone Rainwater Harvesting System**

| | FSM | Kiribati | RMI | Tuvalu |
|---|---|---|---|---|
| NPV@10% (US$) | 6,760 | 1,427 | 26,411 | 62,816 |
| IRR (%) | 15 | 10 | 30 | 73 |

**Steel Rainwater Tank System**

| | | | | |
|---|---|---|---|---|
| NPV@10% (US$) | 16,504 | 11,005 | 37,127 | 72,541 |
| IRR (%) | 33 | 25 | 71 | 266 |

**Economic Analysis**

The models were also subject to economic analysis whereby economic prices were computed by removing taxes, subsidies and other transfers. Standard conversion factors were calculated for each country to convert all prices (input and output prices) into economic prices. Likewise, a shadow wage rate of 80% was assumed for all countries, consistent with the assumption used in the KOIFWAP Project

**Smallholder Piggery – description and assumptions**

| | FSM | Kiribati | RMI | Tuvalu |
|---|---|---|---|---|
| Standard Conversion Factor | 0.96 | 1.00 | 0.97 | 0.99 |
| Shadow Wage Rate for Labour | 2.12 | 2.00 | 2.80 | 1.04 |

For the smallholder piggery model, the standard conversion factor was calculated based on the average standard conversion factors for all four countries. This average standard conversion factor was then used to convert all financial prices into economic prices.

The economic analysis using shadow prices shows the economic viability of all proposed investments in all four countries. A social discount rate of 9% is assumed and used to calculate economic NPV. The economic NPVs and economic IRRs for each investment is outlined below:

| | | | | |
|---|---|---|---|---|
| **Smallholder Piggery** | | | | |
| ENPV@9% (US$) | 3,961 | | | |
| EIRR (%) | 41.8% | | | |
| | **FSM** | **Kiribati** | **RMI** | **Tuvalu** |
| **Home-gardens** | | | | |
| ENPV@9% (US$) | 8,580 | 8,367 | 15,120 | 22,511 |
| EIRR (%) | 103.8% | 106.4% | 170.6% | 136.5% |
| **Standalone RWH System** | | | | |
| ENPV@9% (US$) | 7,070 | 3,212 | 26,975 | 63,432 |
| EIRR (%) | 15.3% | 11.9% | 31.9% | 79.0% |
| **Steel RWH Tank System** | | | | |
| ENPV@9% (US$) | 18,154 | 14,164 | 38,837 | 74,502 |
| EIRR (%) | 43.0% | 34.9% | 101.0% | 778.5% |

**Overall Project economic analysis**

Based on an analysis over a period of 20-years, the overall project will generate a positive net present value (NPV) of US$ 22.3 million at a discount rate of 9% and an economic internal rate of return (EIRR) of 25%.

To test the robustness of project returns to potential risks associated with project implementation (e.g. delays in project implementation, overestimation of adoption rates, and higher costs due to transport and dependence on imported inputs), the project was tested for sensitivity to variations in benefits and costs, lags in the realisation of benefits, fluctuation of input and output prices and variation in adoption rates.

The sensitivity analysis shows that the project is robust and viable when tested for variations in costs and benefits streams. A reduction in project benefits by 20% or an increase in project costs by the same proportion would reduce the EIRR to 21% and 22% respectively. A delay in project benefits has slightly more impact on project viability with the EIRR falling to 19% when project benefits are delayed for up to 2-years. The variation in output prices has a more pronounced impact. A 20% reduction in output prices reduces the EIRR to 18% while an increase in input prices reduces the EIRR to 23%. The analysis also tested the sensitivity of the project to lower adoption rates and production yields.

When adoption rates are 20% lower, the EIRR reduces to 21% while a reduction in yields by 10% reduces the EIRR to 22%.

**Sensitivity Analysis**

| | Δ% | Project risks | EIRR | NPV (US$ '000) |
|---|---|---|---|---|
| **Base scenario** | | | **25%** | **22,356** |
| Project benefits | -10% | Combination of risks affecting output prices, yields and adoption rates | 23% | 18,432 |
| Project benefits | -20% | | 21% | 14,668 |
| Project costs | 10% | Increase of construction material prices | 23% | 21,391 |
| Project costs | 20% | | 22% | 20,425 |
| 1 yr lag in ben. | | Risks affecting adoption rates and low implementation capacity | 22% | 18,481 |
| 2 yrs lag in ben. | | | 19% | 14,925 |
| Output prices | -10% | Low management and negotiating capacity of farmers groups | 22% | 17,167 |
| Output prices | -20% | | 18% | 11,939 |
| Input prices | 10% | Market price fluctuations | 24% | 20,957 |
| Input prices | 20% | | 23% | 19,504 |
| Adoption rates | -10% | Extension service outreach is limited, low uptake of good practices, vaccination uptake is low, epidemic diseases | 23% | 18,785 |
| Adoption rates | -20% | | 21% | 15,256 |
| Yields | -10% | | 22% | 17,685 |

The switching value was estimated for total project benefits at 81.3% and at 669.7% for project costs. Switching values of each investment model has also been estimated and outlined in the table below.

**Switching Values**

| | Benefits | Costs |
|---|---|---|
| **Overall Project** | **81.33%** | **669.70%** |
| Smallholder Piggery Investment | 10.6% | 13.8% |
| **FSM** | | |
| Home garden | 25.2% | 49.3% |
| Standalone RWH System | 51.8% | 107.4% |
| Steel RWH Tank System | 69.8% | 231.3% |
| **Kiribati** | | |
| Home garden | 25.7% | 46.7% |
| Standalone RWH System | 42.0% | 72.4% |
| Steel RWH Tank System | 63.5% | 174.3% |
| **RMI** | | |
| Home garden | 28.7% | 68.1% |
| Standalone RWH System | 69.5% | 227.4% |
| Steel RWH Tank System | 81.4% | 436.4% |
| **Tuvalu** | | |
| Home garden | 33.8% | 234.2% |
| Standalone RWH System | 82.6% | 475.2% |
| Steel RWH Tank System | 89.1% | 818.6% |

In summary, the projected benefits and net welfare improvements to beneficiary households in the four countries are assessed to be robust and sustainable when examined over a 20-year project life.

**Model Limitations**

As outlined earlier, the investment models have been constructed with very limited data. The home garden and smallholder piggery investment models have been limited by the lack of country specific data such as farming systems used at household and community level, crop yields, farm budgets, and local supply chains. While the marketing studies in each country have provided significant insight into the agricultural sector, they lack relevant technical information to accurately construct a truly representative home garden and smallholder piggery model in each country. Likewise, the water infrastructure models are entirely based on data used the KOIFAWP project. The models therefore may not accurately represent the extent of benefits the systems would generate in the other three countries. This data limitation however doesn't imply that the proposed investments will not generate positive financial and economic benefits. It does imply that the analysis may not capture the full extent of impact to the households and communities that these investments would otherwise generate. To account for this deficiency, the analysis has adopted conservative assumptions in relation to project benefits while endeavouring to accurately represent project costs.

## Annex 5: Social, Environmental and Climate Assessment (SECAP) Review Note

### Acronyms and Abbreviations

| | |
|---|---|
| DFAT | Department of Foreign Affairs and Trade (Australia) |
| EEZ | Exclusive Economic Zone |
| ENSO | El Niño-Southern Oscillation |
| ESMF | Environmental and Social Management Framework |
| ESMP | Environmental and Social Management Plan |
| FAO | Food and Agriculture Organisation |
| FFA | Forum Fisheries Agency |
| FSM | Federated States of Micronesia |
| GAFSP | Global Agriculture and Food Security Programme |
| IFAD | International Fund for Agricultural Development |
| ITCZ | Inter-Tropical Convergence Zone |
| KOIFAWP | Kiribati Outer Islands Food and Water Project |
| MFAT | Ministry of Foreign Affairs and Trade (New Zealand) |
| NAIP | National Agricultural Investment Plan |
| NCDs | Non-Communicable Diseases |
| NDU | National Delivery Unit |
| NGO | Non-Government Organisation |
| PICs | Pacific Island Countries |
| PIM | Project Implementation Manual |
| PSC | Project Steering Committee |
| RMI | Republic of the Marshall Islands |
| SAMOA | SIDS Accelerated Modalities of Action Pathway |
| SDGs | Sustainable Development Goals |
| SECAP | Social, Environmental and Climate Assessment Procedures (IFAD) |
| SIDS | Small Island Developing States |
| SIFWaP | Small Island Food and Water Project |
| SPC | Secretariat of the Pacific Community |
| SPCZ | South Pacific Convergence Zone |
| SPREP | Secretariat of the Pacific Regional Environmental Framework |
| WPM | West Pacific Monsoon |
| WUG | Water User Group |

## 1. Major Landscape Characteristics and Issues

### 1.1 Sociocultural Context

The people of the Federated States of Micronesia (FSM), Kiribati, the Republic of the Marshall Islands (RMI) and Tuvalu, and are amongst the most isolated and disadvantaged of the small island developing states (SIDS). The four countries mainly comprise coral atolls scattered over a vast area of ocean with a total population of 286,400 and an average population density of 167 persons per square kilometre of land. The high population densities combined with the low productivity of agro-ecological systems, especially on the atolls, contributes to a precarious food and nutrition security situation. With a sea area of 7.5 million $km^2$, the countries are heavily dependent on their marine resources which generate royalties from tuna fishing by foreign flagged vessels but contribute little to food security or livelihood opportunities for the majority of the population.

Living conditions and poverty levels are particularly severe on outer islands away from the capitals where there are few employment or income generating opportunities, poor infrastructure and services and infrequent transport linkages. Outmigration of the most productive people, combined with climate change and vulnerability to natural disasters threatens the existence of these extremely isolated communities. Populations are in gradual decline in FSM and RMI due to access by their citizens to the USA. Kiribati and Tuvalu are experiencing rapid population growth with limited emigration opportunities, mainly confined to seasonal employment schemes in Australia and New Zealand.

**FSM** is a federation of four states comprising 607 islands, of which around 65 are populated. It extends over 2,700 km from east to west. The four states include: Pohnpei (with the FSM's capital city in Palikir), Kosrae, Chuuk, and Yap. FSM differs geographically from the other three North Pacific Islands in that the islands are largely volcanic but also has a large number of atoll outer islands. Government and the economy are heavily dependent on financial support from the USA under the Compact of Free Association, scheduled to expire in 2023. Agriculture, livestock and fishing activities are undertaken by over 70% of FSM households, predominantly for family use, but with only about 10% of households engaging in these activities for cash sales. There are small amounts of production for export, mainly kava, bananas, root crops and betel nut sent to Guam.

**Kiribati** consists of 32 scattered atolls that mostly rise to no more than 2-3 metres above sea level spanning over 4,500 km from East to West. There are three main archipelagos: Gilbert, Phoenix and the Line Islands. Its only significant source of income comes from fishing licences which generate over half of Government revenues but generate little in the way of employment or livelihood opportunities. Almost half of household income is spent on food, much of it imported products of poor nutritional value. About half of the population lives in crowded conditions on the main island of Tarawa, and the remainder in small communities on extremely isolated and resource-poor outer islands. The effects of rising sea-levels and associated soil and water salinisation is reducing the amount of arable land and threatening fresh water supplies.

**RMI** comprises 1,156 islands and 29 coral atolls with an average elevation of about two metres above sea level. The two urban centres are on Majuro and Kwajalein atolls. All other atolls are classified as rural outer islands, which are low lying with poor agricultural potential. Heavy dependency on financial support from the USA under the Compact of Free Association (due to expire in 2023) and a high dependency on low quality food imports pose significant challenges. RMI is highly vulnerable to climate change and is already experiencing significant damage from storm surges and coastal erosion. RMI is one of the most urbanised countries in the Pacific with over 70% of the population living on Majuro or Kwajalein, which have high population densities.

**Tuvalu** is the smallest of the four countries with a population of just 11,200 living on six low-lying atolls, about half on the main island of Funafuti. All islands are less than five metres above sea level, with the biggest island, Vaitupu, having a land area of just over 524 hectares. The total land area is approximately 26 $km^2$ with an exclusive economic zone[2] of 719,174 $km^2$. The low-lying atolls are vulnerable to cyclones and inundation from rising sea levels. Higher sea levels already threaten the country's groundwater and the future existence of Tuvalu. On Funafuti groundwater is already un-useable and the only sources of water are rainfall and desalination. The economy is heavily dependent on aid and remittances. However, subsistence cropping and artisanal fishing are important pillars of livelihoods on the outer islands. A high proportion of household expenditure is spent on four imported foods (rice, flour, biscuits and sugar). This situation is particularly acute on Funafuti where the population density is extremely high and there is little opportunity for growing food.

### 1.2 Key Challenges

Whilst there are many differences between the countries, they also share a number of common challenges including: (i) heavy dependence on food imports; (ii) lack of locally available nutritious foods; (iii) difficult agricultural conditions; (iv) limited access to fresh water; (v) emigration; (vi) limited human and institutional capacity; and (vii) vulnerability to climate change. Other key challenges that will be addressed by the project include: (i) poor nutrition and health; (ii) gender inequality; and (iii) youth inclusion.

**Nutrition and Health:** Over recent decades, cheap non-nutritious imports such as rice, noodles, bread and sugar have become increasingly available and slowly replaced traditional foods. Changing diets have led to deteriorating health, in particular, nutritional disorders are escalating with high levels of stunting in children, overweight/obesity in adults, and noncommunicable diseases (NCDs) - hypertension, diabetes and cardio-vascular disease. Traditional farming systems were adapted to the atoll conditions, consisting of mixed agroforestry gardens including tree crops and a range of root crops, fruits, vegetables and small livestock. However, demographic, climate and cultural changes have degraded these traditional systems over time.

In the Micronesia subregion, there has been some progress towards achieving global nutrition targets. The global targets for male diabetes and female diabetes each have one country on course to meet them. However, not a single country in the subregion is on course to meet the targets for under-five overweight, under-five stunting, under-five wasting, infant exclusive breastfeeding, anaemia in women of reproductive age, low birth weight, male obesity, and female obesity. Five countries in the subregion have insufficient data to comprehensively assess their progress towards these global targets. The Micronesia subregion has no prevalence data available for under-five overweight, stunting, or wasting. There is also insufficient data on breastfeeding among infants, as is the case for data on low birth weight. The Micronesia subregion's adult population faces a malnutrition burden. An average of 25.1% of women of reproductive age have anaemia, and 22.8% of adult women have diabetes, compared to 21.7% of men. Meanwhile, 53.1% of women and 43.6% of men have obesity.

In the four SIFWaP countries, nutrition-related disorders, including vitamin A deficiency and chronic diseases, are of major concern. Many suggest that these disorders are new problems related to dietary and lifestyle changes. In the past four decades, imported foods, such as white rice, flour, sugar, refined foods and fatty meats, have increasingly replaced local foods in the diet. The four countries have suffered a great loss in production and consumption of local foods. Inconsistent policies and food aid programmes have

contributed to the problem[28]. Further research on the nutrient content of local foods and factors affecting production, acquisition and consumption is needed, as well as a broad, well-planned, intersectoral intervention aimed at dietary improvement for all age groups in the population. The key issues related to nutrition and health a further elaborated in Working Paper 4.

**Gender Equality and Social Inclusion:** None of the four countries report data on the Gender Inequality Index. However, women in the Pacific generally face multiple barriers to equitable participation in social and economic development. There are substantial barriers to women's equality, evident in current social norms, values and practices, influenced by the colonial past and the impact of "modernisation". There are political and power dimensions to gender inequality which intersect with current underlying beliefs. Lack of consistent and sufficient policy commitment and program investment by national governments and donors toward gender equity goals and support services for women has contributed to the poor status of women[29]. Other key challenges to gender equality and social inclusion include:

- **Leadership/Decision Making:** Women make up 18 per cent of parliamentarians in developing countries, but in the Pacific the proportion is just three per cent, which is the lowest in the world.
- **Economic Empowerment:** Men outnumber women in paid employment outside the agricultural sector by approximately two to one.
- **Maternal Health:** Pacific countries are generally making insufficient progress against their targets for MDG5 (improve maternal health), and by region Oceania ranks third worst behind Sub-Saharan Africa and Southern Asia.
- **Gender-Based Violence (GBV):** Over 60 per cent of Pacific women in four Pacific countries report physical and sexual abuse. Reports of GBV have increased during the COVID-19 pandemic, along with financial hardship from reduced economic activity and remittance flows.
- **Education:** With the exception of PNG, the region has achieved the benchmark for gender parity in education. However, several countries are below the developing country average for gender parity in primary and secondary education. Quality of education remains a challenge for all countries.

**Youth Inclusion:** The four participating countries have different definitions of youth and face different challenges in the inclusion of youth in development activities. These challenges and are broadly similar to those experienced across the Pacific Islands (see Box 1), and are most acutely felt in the remote outer island communities that are targeted by SIFWaP, and in urban and peri-urban areas populated by internal migration.

**Box 1: Key Challenges for Inclusion of Youth**

- Rapid population growth in some countries is driving an increase in the proportion of youth (generally defined as age 15-24) and increasing the risk of youth marginalisation and disillusionment.
- The "youth bulge" affects employment, health outcomes, sustainable urbanisation, and social harmony.
- These challenges are exacerbated by restrictions and the economic downturn associated with COVID-19.

[28] Englberger, Lois & Marks, Geoffrey & Fitzgerald, Maureen. (2003). Insights on food and nutrition in the Federated States of Micronesia: A review of the literature. Public health nutrition. 6. 5-17. 10.1079/PHN2002364.

[29] Delivery Strategy: Pacific Women Shaping Pacific Development 2012–2022 | Australian Government Department of Foreign Affairs and Trade (dfat.gov.au)

- Social and economic prosperity depends on whether youth are harnessed to drive economic growth, innovation and leadership – or subjected to political and economic marginalisation and frustration.
- Potential impacts of the burgeoning youth cohort include: low literacy levels; increased poverty; accelerated rural-urban drift; deteriorating health; disillusionment with government and higher risk of socioeconomic and political grievance.
- High pregnancy rates among young women limits their education and career opportunities.
- With low employment rates, weak governance, fiscal pressures, and high aid dependency, PICs are among the most vulnerable to the negative consequences of the "youth bulge".
- In some countries (e.g. FSM and RMI) youth population pressure has been mitigated by opportunities for temporary or permanent emigration.
- Urban centres are magnets for young people struggling to secure paid employment, but towns are struggling to develop infrastructure, services and jobs at a rate need to absorb large numbers of migrating youth. This results in high rates of poverty and unemployment among youth in urban and peri-urban/squatter settlements.
- Education is critical: young people are a potential asset if they are prepared with the skills and knowledge to perform active roles as leaders and drivers of social and economic development.
- However, even those who are educated are at high risk of joblessness. Slow growing economies are not generating enough jobs to keep pace with population growth, particularly in rural areas. Consequently, youth unemployment has been estimated at 23% across the region an over 60% in RMI.
- There are risks of for civil unrest posed by large youth populations, particularly young males experiencing economic idleness, social disadvantage and marginalisation.
- Only one quarter to one third of school leavers secure formal employment. The informal economy provides up to 85% of job opportunities, although wages and working conditions are generally poor.
- Increasing levels of frustration and resentment among marginalised urban youth can make them highly vulnerable to alcohol and substance abuse, crime, unsafe sexual behaviour, and mental illness.
- The agricultural sector provides attractive opportunities for youth employment and self-employment and there are a number of successful targeted youth programmes of this type.

Source: Lowy Institute (July 2020) Demanding the Future: Navigating the Pacific's Youth Bulge Demanding the Future: Navigating the Pacific's Youth Bulge (lowyinstitute.org)

### 1.3 Natural Resources and their Management

**Terrestrial Resources:** Kiribati, Tuvalu and RMI all consist of atolls, while FSM comprises both atolls and volcanic islands. Atoll soils are formed from coral and are coarse-textured with no clay and poor water holding-capacity. The soils are often saline, highly alkaline and low in nutrients such as potassium, iron and manganese. Inorganic fertilisers and chemical pesticides are not available or prohibited on most of the atolls as they could pollute valuable underground water. High average population densities place heavy pressure on land resources, most acutely on the heavily urbanised capital islands of Funafuti (Tuvalu), Tarawa (Kiribati) and Majuro (RMI). With the exception of small areas of freehold land in town centres, the majority of land used for agriculture and residential purposes is under customary ownership. In RMI the WW II legacy (un-exploded ordinance) of outer islands like Mili, Jaluit, Wotje, and Maloelap have created soil conditions that require raised soil beds or other above ground gardening designs.

**Marine Resources:** These can be considered in two parts. The lagoon and inshore areas accessible to small boats are essential parts of the traditional livelihood system, supporting a range of artisanal fishing and aquaculture activities. As a common property resources, these waters are subject to over-fishing, pollution and degradation around the more densely population islands, whilst in the sparsely populated or uninhabited islands they are under-utilised. The ocean resources are part of the countries' exclusive economic

zones30 (EEZs) and are key revenue earners from tuna fishing under licensing or revenue-sharing arrangements with foreign-owned fishing enterprises. Each country is responsible for management and regulation of its ocean fishery, coordinated by the regional Forum Fisheries Agency (FFA). FFA is an advisory body headquartered in Solomon Islands, providing expertise, technical assistance and other support to its members who make sovereign decisions about their tuna resources and participate in regional decision-making on tuna management.

### 1.4 Climate

**Current Climate:** The wet tropical climate of the region[31] is characterised by three extensive bands of large-scale wind convergence and associated rainfall: the Intertropical Convergence Zone (ITCZ), the South Pacific Convergence Zone (SPCZ) and the West Pacific Monsoon (WPM). The ITCZ lies just north of the equator and influences climate in FSM, Kiribati, and RMI among others. These countries also experience very high seasonal rainfall variations associated with the WPM, although RMI this only occurs in some years.

The SPCZ has a significant impact on most of the countries in the South Pacific, including Tuvalu and Kiribati in some years. These countries experience seasonal rainfall variations, but little variation in temperature. However, they may experience extreme events including tropical cyclones, storm surges, heat waves, drought and heavy rainfall. Tropical cyclones produce damaging winds, heavy rainfall and storm surges which can have devastating impacts.

Across the Pacific Island Countries (PICs) large-scale atmospheric circulation patterns influence ocean currents and sea-surface temperature patterns, while the ocean in turn also affects atmospheric winds, temperatures and rainfall. For example, the equatorial trade winds push warm water to the west, giving rise to the warm pool, and drive the upwelling of cooler water in the eastern Pacific; while the warmer water near the equator and the warm pool in particular, drive strong convection in the overlying atmosphere which helps to draw the trade winds across the Pacific Ocean.

**Climate Variability:** The major driver of climatic variability in the Pacific is the El Niño-Southern Oscillation (ENSO) which has been in place since the pre-industrial era. ENSO is a coupled atmosphere-ocean phenomenon, with time scales of about two to seven years. El Niño is identified with a basin-wide warming of the tropical Pacific east of the dateline. La Niña is a basin-wide cooling east of the dateline. ENSO is a fluctuation of a global-scale tropical and sub-tropical pressure pattern called the Southern Oscillation. The ENSO has a profound influence on rainfall, sea level and the risk of tropical cyclones in the region. All Pacific countries are affected by ENSO in some way, although the magnitude and timing of this influence varies.

**Climate Trends:** Records from Pacific Island observation stations show warming over the past 50 years, with trends mostly between 0.08 to 0.20°C per decade, consistent with global warming over this time. Unlike temperature, rainfall across the Pacific Islands displays large year-to-year and decade-to-decade changes in response to natural climate variability. Over the past 50 years, rainfall has increased north-east of the SPCZ affecting

30 EEZs are ocean areas prescribed by the 1982 United Nations Convention on the Law of the Sea over which a state has special rights regarding the exploration and use of marine resources, including energy production from water and wind.

31 The discussion on the current climate and climate change in the Pacific Islands is drawn mainly from the Pacific Climate Change Science Programme (PCCSP) and reported in: Australian Bureau of Meteorology and CSIRO (2011) Climate Change in the Pacific: Scientific Assessment and New Research. Volume 1: Regional Overview. Volume 2: Country Reports.

FSM, RMI and parts of Kiribati, and declined to the south affecting the other parts of Kiribati and Tuvalu.

Over the 1981-2007 period of satellite measurement there are no significant trends in the number of tropical cyclones, or in the number of intense tropical cyclones, in the South Pacific. However, this is a short period for the analysis of infrequent extreme events such as tropical cyclones. Determining trends over longer periods is difficult due to the lack of adequate data prior to satellite measurements.

Sea-surface temperatures of the Pacific Ocean have generally increased since 1950. In addition, the western tropical Pacific Ocean has become significantly less salty, while regions to the east have generally become saltier. In combination, these changes have driven an increase in the stratification of the upper ocean. A distinctive pattern of intensified warming of surface waters and cooling of sub-surface equatorial waters near a depth of 200 m is also apparent over the past 50 years. These patterns of observed change in the ocean are reproduced in climate model simulations that include increased greenhouse gases.

Sea level has been rising globally including in the Pacific over recent decades. Extreme high sea levels are also increasing, primarily as a result of increases in mean sea level. There is significant interannual variability of sea level in the region related to ENSO and other natural variability.

As a consequence of higher $CO_2$ concentration, the oceans are absorbing more $CO_2$ which causes ocean acidification. This is accompanied by a decrease in the saturation state of carbonate minerals that are secreted as shells and skeletal material by many key species in reef ecosystems including reef building corals.

**Climate Projections:** climate change scenarios based on the output of 18 global climate change models indicate that for the Pacific as a whole:

- The extent of warming is likely to be somewhat less than the global average, although there will be large increases in the incidence of extremely hot days and nights.
- Average total rainfall will be little changed but there will be a large increase in the number of heavy and extreme rainfall events.
- Increasing temperatures will outweigh rainfall effects leading to increasing aridity, particularly in the northern and equatorial region.
- The models generate a wide range of sea level projections ranging from 0.18 m to 0.59 m sea level rise by 2080-2099, which is similar to the global average. Current observations suggest an outcome more likely to be in the upper half of the range.
- The future incidence of tropical cyclones is highly uncertain, but an increase in the number of severe storms is suggested.

In addition to these long-term trends, the PICs will continue to be exposed to year-to-year climatic variability influenced principally by the ENSO which produces alternating periods of very wet weather and droughts. The climate models suggest increasing aridity in general due to higher evapotranspiration, but there is no indication of increasing drought frequency. Even so, measures to make poor rural communities more resilient to the effects of drought remain highly relevant.

There is considerably less certainty about climate projections at country level, than for the PICs as a whole. However, as shown in Table 1, all four countries are expected to experience higher temperatures including an increasing number of very hot days, more extreme rainfall events and continuing ocean acidification and sea level rise. Average

rainfall is projected to increase across the region, with the number of tropical cyclones declining.

**Table 1: Climate Change Projections**

| | FSM | | Kiribati | | RMI | | Tuvalu | |
|---|---|---|---|---|---|---|---|---|
| Parameter | Trend | Conf. | Trend | Conf. | Trend | Conf. | Trend | Conf. |
| Air temperature | Increase | V. high | Increase | V. high | Increase | V. high | Increase | V. high |
| Rainfall | Increase | High | Increase | High | Increase | High | Increase | High |
| Very hot days | Increase | High | Increase | V. High | Increase | V. High | Increase | V. High |
| Extreme rainfall | Increase | High | Increase | High | Increase | High | Increase | High |
| Incidence of drought | Decrease | Moderate | Decrease | Moderate | Decrease | Moderate | Decrease | Moderate |
| Tropical cyclones | Decrease | Moderate | | | Decrease | Moderate | Decrease | Moderate |
| Ocean acidification | Continue | V. high | Continue | V. high | Continue | V. high | Continue | V. high |
| Sea level rise | Continue | V. high | Continue | V. high | Continue | V. high | Continue | V. high |

Source: Pacific Climate Change Science Programme (2011)

**Consequences** of climate change: Eight potential impact areas of climate change in the PICs have been identified32 all of them exacerbated by other factors which tend to amplify or accentuate the impacts:

- **Agricultural productivity declines** due to increasing temperatures, higher evapotranspiration and extreme rainfall events. The effects are exacerbated by land degradation, poor agricultural practices, declining soil fertility and poorly funded agricultural research and extension. The entire region is affected, but most severely in the heavily populated atolls where soil fertility is poor.
- **Salinisation** of agricultural land due to sea water intrusion and/or inundation during storm surges. This is also exacerbated by the same factors influencing agricultural productivity decline but is mostly confined to low lying areas where agricultural plots are close to the shoreline. The traditional practice of growing taro in mulch-filled pits has been discontinued on many islands due to salt water intrusion.
- **Coastal erosion** due to rising sea level and coral reef deterioration. Here, the effects of climate change are amplified by removal of mangroves and other shoreline vegetation, beach sand mining, and construction of roads and other infrastructure too close to the shoreline. All coastal areas are affected, but most seriously where there are heavy concentrations of population along the shoreline.
- Salinisation and pollution of **groundwater** resources, particularly the fresh water lens is used for drinking water and watering gardens. This is mainly attributable to rising sea level, but is accentuated by over-extraction of groundwater and inappropriate disposal of liquid and solid waste. The impacts are most serious on low-lying atolls and uplifted coral islands which have no alternative sources of potable water apart from rainwater collection and desalination.
- Deterioration of **coral reef and lagoon** ecosystems, resulting in declining catches of fish and other marine life. This is driven by ocean acidification and increasing water temperatures as well as a number of direct human causes including over-harvesting of lagoon and reef resources, inappropriate/destructive fishing techniques and lagoon siltation and pollution. All communities that are wholly or partially dependent on marine resources for subsistence and cash incomes are affected.

32 IFAD (April 2013). Environmental and Climate Change Assessment: Sub-Regional Strategic Opportunities Programme for the Pacific Island Countries.

- Damage caused by increasing frequency of severe **tropical cyclones**. Whilst the number of cyclones is generally expected to decline the number of severe storms may increase and their impact will very likely worsen due to rising sea levels. The effect of tropical cyclones is aggravated by poorly enforced building and zoning regulations and inadequate disaster preparedness and recovery systems. Countries most affected are in the tropical cyclone belt. Both rural and urban communities are affected with low-lying areas being the most vulnerable.
- Threats to **human health** related to higher temperatures and extreme rainfall events. Dengue fever outbreaks may become more common and flooding increases the risk of water borne diseases. In addition, declining agricultural productivity may exacerbate the already high level of NCDs through increased reliance on poor quality imported food staples. All countries may become more prone to mosquito borne diseases, and change in dietary habits is most acute on atolls due to declining availability of traditional foods.
- Increased frequency and severity of **flooding** associated with extreme rainfall events. Flooding is confined mainly to the coastal plains and deltas of the volcanic islands. The effects of extreme rainfall events are accentuated by deforestation in river catchments causing increased runoff and river bed siltation and uncontrolled infrastructure development in flood-prone areas. The atolls and coral platforms are not usually affected by flooding.

Apart from flooding, these climate change effects are likely to be most severe on the atolls. However, most can also be mitigated in some way often using measures that make sense with or without climate change – so called "no regrets" initiatives. The most formidable challenge is sea level increase which may force the most severely affected communities to migrate in search of more sustainable livelihoods, although this is unlikely to be necessary within the life of Project.

## 2. Potential Project's Impacts and Risks

### 2.1 Overview

The project **objective** is to improve food, nutrition and water security and livelihood opportunities in the small island communities of the four countries. This objective will be achieved through three intervention pathways:

- Sensitising and enabling communities to diagnose, prioritise and implement activities to address food, nutrition and water security (Component 1).
- Investing in projects to address food, nutrition and water security at community, group or household level (Component 2).
- Developing an enabling policy framework for addressing food, nutrition and water security (Component 3).

Component 1 will be the entry point for inclusive engagement with small-island communities and beneficiaries, focusing on community planning and awareness raising. By focusing on engaging communities, and in particular their vulnerable and disadvantaged members, this component will ensure the relevance, ownership and sustainability of these investments. Component 2 will focus on the hard investments for food, nutrition and water security through grant mechanisms and comprise more than half of the project budget. Component 3 will improve the enabling policy environment, primarily at the national level, to facilitate access to resources and programmes supporting these results over the long term. All these activities will further contribute to improving livelihoods as described in the section on Key Potential Impacts below, and in the Theory of Change in Annex 2.

The design of the Project is strongly reflective of the experience in implementing the IFAD-supported Kiribati Outer Islands Food and Water Project (KOIFAWP) since 2015. KOIFAWP has demonstrated positive social, health and environmental impacts in remote small island environments with conditions very similar to those prevailing in the SIFWaP Project areas. SIFWaP will build on the achievements of KOIFAWP, especially the institutional arrangements for managing environmental, social and climate risks and impacts, and the lessons learned in building the adaptive capacity of ecosystems and communities.

## 2.2 Key Potential Impacts

### Social Impacts

SIFWaP will build on the Kiribati-KOIFAWP model, which has engaged the communities in the outer islands. KOIFAWP is delivering material benefits to remote outer island communities as well as building social cohesion and successfully engaging women and youth groups. The project is itself based on successful models of community-driven agricultural/rural development employed in other IFAD programmes in the Pacific, most notably the Tonga Rural Innovation Project now entering its third phase. Consequently, social impacts are expected to be predominantly positive in the context of high unemployment (particularly youth) internal and international migration, lack of economic opportunities, social exclusion of youth, malnutrition. Box 2 below provides an indicative (but non-exclusive) list of activities that may be selected by communities. The benefits that these are expected to generate are detailed in the Theory of Change in Annex 2.

Component 1 will be the entry point for engagement with small-island communities and beneficiaries, focusing on community planning and awareness raising, to support food production, nutrition awareness and water management. By focusing on engaging communities, this component will ensure the relevance, ownership and sustainability of the investments undertaken under Component 2. The outcome of Component 1 is expected to be sensitised and enabled communities with the capacity to diagnose, prioritise and implement activities to address food, nutrition and water security.

The expectation of positive social impacts will be underpinned by significant up-front work in community engagement through the selection of one or more qualified NGOs as service providers in each participating country and island community. The NGO(s) will be required to recruit and train Island Facilitators (one per island) and Community Field Officers (one per community). They will also be required to prepare training materials for Island Facilitators, Community Field Officers and Community Committees. This approach is modelled on the success of KOIFAWP in engaging and working with remote island communities and will engage these communities in developing a consensus on problems to be addressed, action plans, beneficiaries and the estimated intervention costs. It will be built around community consultation processes that analyse problems and opportunities related to food, nutrition and water security and related livelihood opportunities.

The community-driven approach carries the risk of elite capture and/or non-inclusion of vulnerable and disadvantaged households and individuals. The targeting approach will involve the screening and selection of islands and communities according to specified criteria including:

- Number/percentage of low-income households and households experiencing water, food and nutrition insecurity.
- Number/percentage of low-income households and households affected by any kind of malnutrition.

- Vulnerability to climate variability and climate change.
- Engagement in other ongoing of planned programmes of a similar nature.
- Willingness and readiness of community leaders and members to participate and previous experience in dealing with the community.
- Accessibility – sea and air transport linkages.
- Capacity to achieve targets for engagement of vulnerable groups.
- Community facing disadvantages due to isolation.

The Project Proposal indicates that within the target communities, all households will be eligible to participate in Project activities, since it is not feasible in small island communities to focus only on particular groups such as poor and vulnerable households including women and grandparent headed households and youth. However, consideration should be given to refining this definition sharpen the focus on households affected by the COVID-19 pandemic: e.g. households absorbing people re-locating from urban areas, affected by loss of remittance income, or loss of access to markets. More than half of the beneficiaries are expected to be female. SIFWaP will target whole households (usually 50% women and girls), and will incorporate gender-based indicators to encourage the inclusion of female and grandparent headed households and younger people at school leaver age. Each participating country will employ its own definition of youth and will define approaches and methodologies for youth engagement in their respective PIM, in accordance with prevailing policies and social norms.

**Nutrition and Health Impacts**

Nutrition and health impacts are assessed in the context of the triple burden of malnutrition (undernutrition, micronutrient deficiencies and overnutrition) together with the NCD pandemic. Poor diet quality is a major driver for both malnutrition and health, related to insufficient diet diversity especially lack of consumption of fresh fruits and vegetables, and increasing reliance on imported and ultra-processed food, often of poorer nutritional quality; as well as limited access to good quality water for drinking and sanitation. Nutrition and health are key elements of fragility in the target communities and will be addressed in all three components.

Component 1 will create improved knowledge and awareness about food, nutrition and health including knowledge about the nutritional attributes of foods, the importance of dietary diversity, and appropriate techniques for food preparation and handling. Community engagement activities and training will ensure that households are better equipped to prepare healthy and nutritious diets and are better aware of the long-term consequences of inadequate diet intake and poor diversification. In many small island communities, limited knowledge/awareness about the importance of nutrition contributes to the sharply deteriorating health profile. Under Component 1, the Project will work with the target communities to remedy this lack of awareness, based on stakeholder mapping processes, in parallel with measures to improve food and nutrition security through local production of nutritious foods under Component 2. Component 3 will support improvements in the enabling policy framework for food and nutrition security through national policies, strategies and agricultural investment plans.

**Environmental Impacts**

**Issues and Challenges:** Environmental vulnerability in the PICs is mainly affected by two key factors: population density and geomorphology, with the densely populated atolls being the most vulnerable to both environmental and climate risks. Whilst the average population density across the PICs (excluding Papua New Guinea) is around 34 persons per $km^2$, the four SIFWaP countries vary between 146 per $km^2$ in Kiribati and 431 per $km^2$

in Tuvalu, with most of these, other than on the volcanic islands of FSM, being resident on atolls.

According to both population density and geomorphology criteria only Nauru ranks higher than FSM, Kiribati, RMI and Tuvalu in terms of environmental vulnerability. These vulnerabilities are exacerbated by internal migration to overcrowded main/capital islands with even higher population densities: e.g. South Tarawa (Kiribati) with 3,180 persons/km$^2$; Majuro (RMI) with 2,860/km$^2$; and Funafuti (Tuvalu) with 2,600/km$^2$. Environmental stresses arising from high population pressure include deforestation; chronic (sometimes acute) water shortages caused by over-extraction and/or contamination of groundwater; pollution and overfishing of lagoon and inshore areas; solid and liquid waste disposal; mangrove depletion/beach erosion; and invasive species. Sustainable management of ocean (pelagic) fisheries is also a major challenge given the limited capacity of Governments to monitor and regulate the use of their vast EEZs.

**Potential Impacts:** SIFWaP will adopt a non-prescriptive approach, enabling communities, households and individuals to plan and undertake various investments in pursuit of improved food, nutrition and water security. Activities may be of a public good nature, benefiting the entire community or sub-communities, or private good type activities undertaken by individuals or small groups. The Project proposal provides an indicative list of activities to be supported through matching grants and technical facilitation (see Box 2). Assistance will only be provided for activities that directly support food, nutrition and water security. The Project will review proposals to ensure their consistency with project objectives and targeting strategies (especially women, youth and PWD) and exclude activities if there is a risk of adverse environmental, social or health risks.

**Box 2: Indicative List of Activities to be Supported**

**Community/Public Good Activities**

- Fresh produce markets, fish markets, handicraft markets
- Transport infrastructure: feeder roads
- Water supply systems: wells, rainwater catchment, solar distillation, desalination
- Community level schemes for composting, cold storage, nurseries etc.
- School/community gardens
- Community fisheries management schemes
- Pest and invasive species management
- Solar street lights, solar mini/micro-grids, solar Wi-Fi___33 access points

**Private Good Activities**

- Composting equipment
- Nurseries/seed production inputs and equipment
- Small livestock and equipment
- Fishing, aquaculture, seaweed and equipment
- Home gardens, hydroponics
- Root crops
- Storage facilities: cold-stores, freezers
- Tree crop replanting: coconuts, breadfruit, bananas
- Agro-processing, food preservation: virgin coconut oil, breadfruit flour, banana chips, coconut sap sugar, pandanus juice etc.
- Solar-powered equipment such as poultry incubators, driers and pumps
- Household scale biogas digesters
- Non-farm income generating enterprises, e.g. furniture making, brick manufacture

Since water security is a major livelihood issue on atolls and some other islands, most public good investments selected by communities under Component 2 are expected to be in water supply. The options for improving water security vary between islands depending on total rainfall, rainfall seasonality and variability, hydrogeology and population

density33. In most cases rainwater harvesting and storage is the preferred option. However, on some islands careful management of the surface and groundwater resources is still feasible, although at risk of salinisation due to rising sea levels.

The activities listed in Box 2 are indicative and are not intended to exclude others that may arise during the community consultation process, provided they address the Project objectives of improved food, nutrition and water security. This avoids the risk of excluding worthwhile proposals that may not be in the indicative priority areas. However, any additional activities will be subject to social, health and environmental assessment, and an exclusion (see Box 3) list detailing activities that cannot be supported.

**Box 3: Proposed Exclusion List**

- Production or trade in any product or activity deemed illegal under National laws or regulations or international conventions and agreements, or subject to international bans, such as pharmaceuticals, pesticides/herbicides, ozone depleting substances, PCBs, wildlife or products regulated under CITES.
- Production or trade in weapons and munitions, alcoholic beverages (excluding beer and wine), and tobacco.
- Activities involving harmful or exploitative forms of forced labour/harmful child labour.
- Commercial logging operations in primary tropical forest and production or trade in wood or other forestry products other than from sustainably managed forests.
- Any activity which potentially compromises ownership of or access to customary land or otherwise threatens the traditional values or human rights of citizens and residents.
- Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals.

Where funds are channelled to beneficiaries via financial intermediaries (e.g. banks or microfinance institutions) the intermediaries are expected to employ the same exclusion list.

Source: IFC/World Bank Exclusion list modified to reflect specific customary and human rights issues in the participating countries and communities.

**Policy and Institutional Framework**

**General:** All four countries have a range of laws, regulations, policies, plans and institutions covering agriculture, fisheries, climate change, environment, health and nutrition, youth, gender equity, and disability which reflect their development aspirations in relation to food and nutrition security and building resilience.

The lead implementing agency in each country is the ministry of department with responsibility for both agriculture and environment:

- FSM: National Department of Resources and Development (NDRD)
- Kiribati: Ministry of Environment, Land and Agriculture Development (MELAD)
- RMI: Ministry of Natural Resources and Commerce (MNRC)
- Tuvalu: Ministry of Natural Resources (MNR)

In addition to the lead agency, a number of other agencies will be engaged in project implementation under MOUs with the lead agency. These will vary between countries (and

33 A review of hydrological options has been undertaken in parallel with this review and its findings are reported in a separate Working Paper.

for FSM between States) but will include the departments or ministries with responsibility for: water and sanitation, health and nutrition, infrastructure and public works, agriculture, youth, gender and disability to support the implementation of project activities in accordance with their mandates. A range of sub-national agencies will also participate including State Government agencies in FSM and local government bodies such as Island or Community Councils in FSM and elsewhere. Partnerships with other ministries and agencies will be defined in the CDPs, which will be completed in Year 2 or 3 of the project, thus allowing sufficient time for the preparation of MoUs without delaying project implementation. In fact, template MoUs can be drafted as part of the project preparation.

The national policies and institutional frameworks are aligned with regional and global frameworks such as: the SIDS Accelerated Modalities of Action (SAMOA) Pathway; the Framework for Resilient Pacific Development; the 2030 Agenda for Sustainable Development; the Secretariat of Pacific Regional Environmental Framework (SPREP); and the Paris Agreement, and are anchored on the unique needs and circumstances facing these small island nations.

**Nutrition and Health Policies** in the SIFWaP countries reflect the nutrition transition underway across the region characterised by shifts from traditional diets in favour of modern, imported and processed foods high in sugar, fat and salt; associated with deteriorating health metrics across all demographic groups. These changes are elaborated in Working Paper 4.

All four countries have National Development Plans that aspire to developing or revitalising the agricultural sector to increase household incomes, reduce reliance on imported food, diversify diets, improve nutrition and health outcomes (including NCDs). Without exception, food and nutrition security is seen as an absolute priority, reflecting concerns about a growing national food import bill, deteriorating health (and associated costs to the economy), and high levels of household expenditure on food purchases that are increasingly on unhealthy foods.

The consultations undertaken in preparing the Project provided a clear indication of national priorities. Without exception, food and nutrition security is seen as an absolute priority, along with adaptation to climate variability and climate change. This reflects concerns about a growing national food import bill, deteriorating health (and associated costs to the economy), and high levels of household expenditure on food purchases that are increasingly on unhealthy foods.

Although none of the four countries have current nutrition plans or strategies, nutrition is a consistent theme of related sector strategies such as health, agriculture and food security. Tuvalu and FSM have National NCD Policies[34] that include components on improving nutrition, primarily through increasing local production and consumption of fruit and vegetables and reducing overweight and obesity; and in Tuvalu through improved nutrition education and skill development.

SIFWaP is aligned with policy and institutional framework for **Gender Equity and Women's Empowerment** in each of the four countries, although all lack institutional capacity to implement their respective gender strategies and policies.

FSM prepared a National Gender Policy in 2017 which focuses on six key issues: (i) better representation of women in decision-making; (ii) elimination of GBV; (iii) equitable education outcomes; (iv) gender barriers in the workplace; (v) health care; and (vi) mainstreaming gender in Government. The Policy notes high rates of GBV and zero levels of female participation in national and state legislatures. FSM also has a National Strategic

[34] FSM: National Strategic Plan of Action for the Prevention and Control of Non-communicable diseases (2019-2024); Tuvalu: National Noncommunicable Diseases Strategic Plan (2017-2021).

Plan on Gender Development and Human Rights. However, the country is still in the early stages translating the Policy into a legislative framework for gender equality including developing a draft bill to support temporary special measures for women in parliament. Two of the four states, Pohnpei and Kosrae, have passed Family Protection Acts[35].

The National Gender Policy of Kiribati addresses five priorities: (i) gender mainstreaming to achieve gender equality; (ii) improved economic empowerment of women; (iii) stronger, informed families; (iv) improved women's political representation and leadership; and (v) elimination of GBV. Kiribati ratified the Convention on the Elimination of All Forms of Discrimination Against Women in 2004. The Government has also taken steps to support gender equality with the creation of the Ministry of Women, Youth, Sports and Social Affairs in 2012. This Ministry is responsible for progressing women's empowerment and implementing the Strategic Action Plan 2011–2021 to support the elimination of sexual and gender-based violence[36].

RMI is a matrilineal society where the rights to land are held collectively by members mother's clan. However, men are usually delegated the authority to exercise and control these rights. The government has ratified the Convention on the Elimination of all forms of Discrimination Against Women and the Convention on the Rights of the Child, although reporting under these treaties has been irregular. RMI has also endorsed several key international and regional policy frameworks containing commitments to gender equality such as the Pacific Leaders' Gender Equality Declaration[37]. The National Gender Mainstreaming Policy adopted in 2015 guides the development of laws, policies, and procedures in key priority areas: delivery of gender-responsive programmes and services, family well-being, GBV, economic empowerment and decision-making.

In Tuvalu the National Gender Policy and the National Strategic Plan outline the government's approach to addressing gender inequalities. Gender equality and social inclusion is on the national agenda, evidenced by the presence of gender equality outcomes in the National Development Strategy, endorsement of numerous international commitments and regional platforms, shifting of the Gender Affairs Department to the Prime Minister's Office and endorsement of a new National Gender Policy. The Government has also shown willingness to address sensitive barriers to women's empowerment including custodial rights to land, lack of women's representation in political leadership and addressing violence against women[38].

**Youth Policies** in the SIFWaP countries reflect the common challenges of youth inclusion listed in Box 1. SIFWaP has been designed in accordance with the youth policy settings in each participating country.

The FSM Strategic Development Plan (2004-2023) incorporates multiple initiatives to advance youth inclusion in national development, that are also reflected in the 2004 National Youth Policy. Specific initiatives targeting youth in FSM include: job creation; reduced levels of youth emigration; youth health and nutrition; entry-level jobs for returning youth; vocational and technical training; support for youth organisations; life skills and leadership training, and inclusion of youth in policy processes.

The Kiribati Development Plan (2016-2019) and the Kiribati Agriculture Strategy (2020) both recognise the very high rates of unemployment among youth and the pressing need

[35] Pacific Women Shaping Pacific Development—Federated States of Micronesia Country Plan Summary | Australian Government Department of Foreign Affairs and Trade (dfat.gov.au)

[36] Pacific Women Shaping Pacific Development: Kiribati Country Plan Summary | Australian Government Department of Foreign Affairs and Trade (dfat.gov.au)

[37] Pacific Women Shaping Pacific Development: Marshall Islands Country Plan Summary | Australian Government Department of Foreign Affairs and Trade (dfat.gov.au)

[38] Pacific Women Shaping Pacific Development—Tuvalu Country Plan Summary | Australian Government Department of Foreign Affairs and Trade (dfat.gov.au)

for training and job creation. These strategies draw on the National Youth Policy (2011-2015) which incorporates four strategic policy areas: (i) Education and skills building; (ii) Economic participation and employment; (iii) Youth health and safety; and (iv) Social cohesion and civic participation.

The RMI National Strategic Plan (2015-2017) incorporates the 2011 National Youth Policy. It identifies a number of key development challenges relating to children youth and vulnerable groups including the need for enhancing the capacity of youth and vulnerable groups to realise their full potential. Specific policy measures include improved access to: (i) education and training, career development and livelihoods; (ii) health services; (iii) services promoting Marshallese culture; and (iv) sports, recreational activities and leadership programmes.

The Tuvalu Agriculture Sector Plan (2016-2023) recognises youth as among the most disadvantaged groups in the country, with youth unemployment as a major problem. The continuing trend of increasing urbanisation and negative attitudes of youth towards work in the agriculture sector has resulted in even higher rates of youth unemployment. The Plan proposes to increase the participation of youth in agriculture in order to reduce urban drift, encourage participation of youth in agricultural sector organisations, and providing training in agricultural skills. The Tuvalu National Strategy (2016-2020) also includes specific initiatives to increase youth employment and youth business startups.

**People with Disability:** In the last five years, most PICs (including FSM, Kiribati, RMI and Tuvalu) have strengthened their commitments to tackle barriers faced by PWD by ratifying the Convention on the Rights of Persons with Disabilities (CRPD). The adoption of the 2016-2025 Pacific Regional Framework for the Rights of Persons with Disabilities (PFRPD) represents another important step forward. Those commitments have begun to translate into greater efforts and progress in terms of awareness raising, legal harmonisation, data collection, inclusive education, vocational training, and access to assistive devices, social protection, disaster risk reduction and humanitarian response[39].

FSM National Policy on Disability adopted by Congress in 2009. The aim of the Policy is to identify priority areas for action in order to promote societal awareness and inclusion of the rights-based society for PWD, including the needs and privileges of persons with disabilities. The FSM has approximately 10,000 people with some form of disability.

The Kiribati National Disability Policy and Action Plan (2018-2021) provides a framework to guide implementation of the CRPD and includes 11 priority areas for action: (i) legislative support; (ii) disability organisations; (iii) data collection and analysis; (iv) improved accessibility; (v) community awareness and advocacy; (vi) education and vocational training; (vii) employment; (viii) social protection and poverty alleviation; (ix) health care; (x) support for women and girls with disabilities; and (xi) disability inclusive development.

The RMI National Policy on Disability Inclusive Development (2014–2018) aims for RMI to become "a barrier-free society that respects the rights of all persons with disabilities by empowering, including and providing them with the means of achieving their rights" In 2015 RMI passed the Rights of Persons with Disabilities Act which declares the equal rights and freedoms of all persons with disabilities and provides for the protection, promotion and enforcement of those rights and freedoms, as a step towards implementing the obligations of the CRPD.

**Risk Mitigation Hierarchy**

[39] Pacific Disability Forum (2018) SDG-CRPD Monitoring Report: Executive Summary – From Recognition to Realisation of Rights: Furthering Effective Partnership for an Inclusive Pacific 2030.

Across all potential social, health and environmental impact areas SIFWaP will employ IFAD's risk mitigation hierarchy focusing initially on **avoiding** adverse impact through the application of strict screening and selection criteria for activities to be supported together with utilisation of the proposed exclusion list in Box 3. Hydrological assessments at local level will form a key part of the avoidance measures to ensure that water quality and supply are sustainably managed.

Where risks are identified in otherwise worthwhile interventions, steps will be taken to **minimise** adverse impacts, for example by ensuring that agro-processing waste is used for producing compost for application to food gardens. No risks have so far been identified which would necessitate resorting to the lower levels of the mitigation hierarchy including mitigation, restoration and, as a last resort, compensation for adverse impacts.

### 2.3 Climate Change and Adaptation

The characteristics of climate variability and climate change detailed in Section 1.3 demonstrate that climate is a key area of vulnerability and fragility in all four countries, and a core element of the rationale for international assistance through the GAFSP. Climate change also presents a major challenge to the achievement of Project objectives, and the following paragraphs detail these challenges and how the Project will respond to them.

**Climate Variability:** Natural climate variability poses significant livelihood challenges for PIC rural communities. The climate record of region indicates a climate in transition, driven by both natural and human influences. Palaeo-climatic records indicate the Pacific is characterised by climate variability on a wide variety of time scales including changes in the frequency and intensity of the ENSO. There is a body of indigenous knowledge in Pacific communities on managing climate variability including preparing for and recovering from extreme events. However much of this knowledge has been lost as livelihoods have transition from traditional farming and fishing to a high level of dependency on imported food, remittances and government employment. Rapidly improving weather and climate information across the region, including short and medium-term weather forecasting, provides an opportunity for participating communities to engage in new learning about how to live with climate variability – with benefits also on adaptation to climate change.

**Rising Temperatures:** The impacts of rising air and sea surface temperatures are unambiguously negative for SIFWaP communities. Rising sea temperatures causing coral bleaching, in combination with increasing ocean acidity which reduces the rate of coral reef accretion, is causing widespread deterioration of coral reef ecosystems. The reefs are a key natural resource for coastal communities for subsistence and income generation. Coral reef deterioration combined with rising sea level also exposes the lagoons and beachfronts to wave action. On land, rising temperatures also increase potential evapotranspiration, meaning that crops need more moisture. Although rainfall may increase in some areas, this is not likely to be sufficient to compensate for increasing moisture requirements, so that crop productivity is expected to decline, threatening food security.

**Rainfall and Water Availability:** Climate models suggest that rainfall will generally increase and with decreasing occurrence of droughts, but higher frequency of extreme rainfall events. However, combined with increasing temperatures, the outlook is for increasingly arid conditions (particularly on the atolls) interrupted by severe rainfall events which many cause flooding and/or crop damage from time to time. Increasing aridity will also reduce the rate of aquifer recharge on the coral platforms and atolls, which combined with increasing seawater intrusion, poses a severe threat to potable water supplies.

**Impacts on Agriculture:** The main impacts on the agriculture sector will derive from the combined effect of temperature and rainfall. The ratio of rainfall to evapotranspiration is likely to decrease in most parts of the SIFWaP region, resulting in increased aridity, except

near the equator where the relatively large projected rainfall increases exceed the smaller changes in evapotranspiration. The SIFWaP target groups are amongst the most vulnerable to these changes. They are mainly subsistence and semi-subsistence farm households in isolated areas producing food from root crops, vegetables, fruits and coconuts, supplemented by small livestock, mainly pigs and poultry.

Occasional agricultural surpluses may be sold for cash, small island communities are usually poorly connected to markets and do not generally grow cash crops apart of from copra and kava in some areas. More arid conditions will increase the frequency of food-crop failures, creating hardship and food insecurity for these people, most of whom are also affected by the declining productivity of marine resources. Traditional coping mechanisms include community-based/customary social safety nets and migration; with the latter most prevalent among the younger, male and more entrepreneurial community members. Migration may be to urban areas, usually the national capital, or to Australia and New Zealand for seasonal work or permanent settlement. R remittances from migrant workers are a major pillar of livelihoods on many of the small island communities.

**Aquaculture and Fisheries:** The great majority of SIFWaP beneficiaries live on the coast and are dependent to some extent on the marine ecosystem. Atoll communities are heavily dependent upon marine resources for survival and are extremely vulnerable to the climate change as well as other drivers of ecosystem decline and biodiversity loss. Commercial exploitation of ocean fish resources, mainly tuna, is an important source of economic output and government revenue. Fresh water aquaculture is not significant source of livelihood for rural communities in the target countries. However, lagoon-based mariculture is practiced in some areas including bêche-de-mer, clams, pearl oysters, seaweed etc. Whilst these activities have the potential to reduce pressure on other marine resources, they can have negative environmental impacts associated with the introduction of exotic species into the lagoon ecosystems.

**Coastal Zones:** Sea level has risen globally and in the Pacific region over recent decades. Extreme sea levels are also increasing, primarily as a result of increases in mean sea level. Further sea level rises are projected through to the end of this century at rates similar to the global average. However, there is a higher degree of uncertainty about sea level projections than other climatic variables due to the poor understanding of the processes responsible for polar ice-sheet changes. It is certain however that the SIFWaP target groups amongst the world's most vulnerable to the effects of rising sea level. They are already experiencing the impacts of coastal erosion, sea water intrusion of aquifers and inundation of low-lying coastal areas during storm surges.

**Health Impacts:** The overall health effects of climate change (additional to those affecting food and nutrition security/NCDs) have been identified by WHO40 and are likely to be mostly negative. Many of the major diseases such as diarrhoeal diseases, malnutrition, malaria and dengue fever are highly climate-sensitive and are expected to worsen. Areas with weak health infrastructure such as remote islands will be the least able to cope. Changes in climate are likely to lengthen the transmission seasons of important vector-borne diseases and alter their geographic range. Although malaria is not endemic in any of the SIFWaP countries, dengue fever outbreaks are frequent. The *Aedes* mosquito vector of dengue fever is highly sensitive to climate conditions and could become more abundant.

Extreme high air temperatures contribute directly to deaths from cardiovascular and respiratory disease (including COVID-19), particularly among elderly people. Pollen and other aeroallergen levels are also higher in extreme heat, which can worsen asthma. Rising sea levels and extreme weather events can damage or destroy homes, medical facilities

40 WHO Factsheet (February 2018) Climate Change and Health https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health

and other essential services. People who live near the sea may be forced to move, which in turn heightens the risk of a range of health effects, from mental disorders to communicable diseases. Increasing rainfall variability can also affect the supply of fresh water which can compromise hygiene and increase the risk of diarrhoeal disease. Floods contaminate freshwater supplies, and create breeding grounds for disease-carrying insects such as mosquitoes. They also cause drownings and physical injuries, damage homes and disrupt the supply of medical and health services.

WHO points out that people living in small island environments are particularly vulnerable to these influences. Children are among the most vulnerable to the resulting health risks. The health effects are also expected to be more severe for elderly people and people with infirmities or pre-existing medical conditions.

**Natural Disasters:** The PICs are commonly affected by various types of natural disaster including storms, floods, earthquakes and droughts. Less frequent disasters include volcanic activity/tsunamis, epidemics, landslides, and bushfires. Storms and floods occur more frequently in the South Pacific (Fiji, PNG, Solomon Islands, Tonga, and Vanuatu), whereas droughts are more common in the SIFWaP countries of the North Pacific. The frequency of natural disasters in the Pacific has increased from about four per year in the 1990s to 6-10 per year over the last decade. Generally the frequency and impacts are higher in the hurricane-prone islands of the South Pacific than in the North Pacific. Table 2 below presents a summary of the likelihood and impacts of natural disasters in the SIFWaP countries compared to the PICs generally41.

**Table 2: Probability and Impact of Natural Disasters in the Pacific**

| | FSM | Kiribati | RMI | Tuvalu | All PICs |
|---|---|---|---|---|---|
| Likelihood a/ | 24.3 | 10.8 | 16.2 | 16.2 | 34.0 |
| Median Damage (% of GDP) | 1.8 | NA | NA | NA | 1.7 |
| Maximum Damage (% of GDP) | 3.5 | NA | NA | NA | 161.8 |
| Median Population Affected (%) | 5.7 | 80.8 | 1.1 | 42.0 | 1.3 |
| Maximum Population Affected (%) | 97.8 | 100.0 | 38.3 | 42.6 | 100.0 |

a/ Probability of at least one disaster in a given year. Source: Lee, Zhang and Nguyen (2018)

Whilst climate scenarios presented in Table 1 provide mixed messages about the future frequency of natural disasters in the target countries, Table 2 suggests that over a 5-7 year implementation period the likelihood of one or more events is quite high, and that the more severe events can affect large percentages of the population (particularly among disadvantaged/vulnerable groups) and the economies as a whole.

**Adaptation Measures**

Stakeholder consultations undertaken during preparation of the SIFWaP Project Proposal in 2019 indicates a high degree of awareness about the challenges posed by environmental and climate change issues. Proposed responses are articulated in national development plans, and in agricultural/fisheries sector development plans, where these exist. However, implementation of these plans suffers from lack of financial and human resources.

FAO[42] in a review of Climate Change and Food Security in the Pacific Island Countries identifies a number of responses under the heading, "what more needs to be done". FAO proposes that PICs should focus on adaptation and, to a lesser extent, on mitigation, with a focus on win-win measures, such as drought-resistant crop varieties, improving climate information dissemination systems and farm level management, strengthening the

[41] Lee D. Zhang H. and Nguyen C. (May 2018). The Economic Impact of Natural Disasters in Pacific Island Countries: Adaptation and Preparedness. IMF Working Paper 18/108.

[42] FAO (2008) Climate Change and Food Security in Pacific Island Countries

enforcement of fisheries and forestry legislation, and eliminating bureaucratic inefficiencies. In addition, FAO suggests that the cross-sectional vulnerabilities of different stakeholders and sectors of the society must be considered, when responding to the impacts of climate change. For example, Pacific women are mostly responsible for harvesting inshore waters and reefs for fish, shellfish and other marine products. Climate change will negatively impact inshore fisheries, affect women's source of income and, reduce household food supply. The FAO study also identifies specific areas where support from the international community is needed including:

- Raising awareness and understanding of climate change and its potential impacts, particularly in sectors beyond the environment departments and NGOs that have previously been at the forefront of climate change discussions.
- Mainstreaming climate change across government agencies, to ensure that food and nutrition security is addressed in a way that includes all stakeholders, and is recognised in both national and sectoral planning and budgeting.
- Designing cross-sectoral policies to support domestic food production (incorporating agriculture, fisheries, water, trade/tariff policy, appropriate incentives, legislation, research and development etc.), as a key element or product of mainstreaming.
- Intensifying efforts at capacity building for agriculture across the PICs that focus on climate change impacts and adaptation.
- Implementing capacity building efforts for integrated coastal management, taking into account future climate change scenarios to limit adverse effects and optimise food production opportunities.
- Supporting programmes and projects that target agricultural (including seafood) production to promote food production and food security in light of climate change focusing on specific agricultural (including mariculture and aquaculture) products and processes.

A major (570 page) review of climate change vulnerability in the Pacific[43] identifies a number of adaptation measures, most of which are applicable to at least some extent in the atoll environments. The proposed adaptation measures consider both the technologies and the capacity of small island households, communities and institutions to engage in the necessary change processes. Three types of adaptation approaches are considered:

- **Tactical** options involving modifications to current practices. These usually short-term farm level management interventions that are "no regrets" strategies[44] to respond to changing and less predictable seasonal conditions. These short-term adaptation options take into account local climate trends where there is a strong correspondence between these trends and projected climate changes.
- **Systemic** adaptation options involve the packaging of multiple incremental changes in ways that deliver benefits across diverse social, economic and environmental domains, for example misted tree and crop production systems.
- **Transformational** adaptation options including new technologies, new systems of governance or shifts in the location of activities – generally involving considerable investment and a much longer timescale than tactical of systemic options.

[43] Taylor M, McGregor A, and Dawson B (eds) (2016). Vulnerability of Pacific Island Agriculture and Forestry to Climate Change. SPC Publication.

[44] Defined as strategies that generate direct or indirect benefits that are large enough to offset the costs of implementing the options regardless of future climate change outcomes.

In the atoll environments and the time scale of the Project, SIFWaP will focus mainly on tactical and systemic adaptation approaches drawing on a menu of technological options as follows:

- Soil health management, including the use of leguminous cover crops, composting and agroforestry systems, appropriate use of fertilisers and agricultural waste, and sustainable intensification approaches to improve productivity and build resilience to climate variability and change. Such technologies have been shown to substantially improve the productivity of coralline atoll soils and reduce vulnerability to dry spells and droughts.
- Enhanced pest, disease and weed control through improved biosecurity, monitoring and integrated pest/disease/weed management approaches, including guidance on use of the Pacific Pests and Pathogens app[45].
- Improved water-use efficiency to reduce pressure on water resources, using technologies such as micro-irrigation and wicking hydroponic systems.
- Processing and storage of staple foods as well as fruit and vegetables, to reduce post-harvest losses and provide buffer stocks in case of droughts or other natural disasters, as well as providing year-round access.
- Better utilisation of plant genetic resources through testing and selection to identify species and varieties that are adaptable to the harsh atoll conditions under changing climate, whilst maintaining and enhancing crop diversity to improve diets and reduce risk. Where possible, selection of species or varieties with particularly high micronutrient profiles are recommended (e.g. carotene rich banana over white cavendish varieties).
- Increased use of protected cultivation and nursery systems to avoid damage from extreme heat, drought and rainfall events and extend the cropping season.

A range of adaptation measures was identified during preparation of the SIFWaP Project proposal in 201946. These are specifically tailored to the climate challenges experienced in the SIFWaP Project areas and cover the following:

**Climate smart agriculture** (CSA) and a virtuous circle resilience approach. CSA encompasses three objectives: (i) sustainably increasing productivity and incomes; (ii) building resilience to climate change; and (iii) reducing and/or removing greenhouse gas emissions. CSA is an integrated, interdisciplinary, approach that needs to be tailored to specific situations and requires comprehensive capacity building. The virtuous circle resilience approach is aligned with the principles of CSA, but places stronger emphasis on sustainable management of waste streams and building diverse and resilient food systems that address household needs while enhancing and protecting the environment.

Climate smart **varieties and practices** building on the atoll permaculture work in outlying parts of Solomon Islands. There are also some success stories in each of the four SIFWaP countries that may be amenable to replication, for example:

- In FSM there is evidence of very successful community engagement activities, focused on agriculture and gardening, involving a range of expertise and a number of NGOs.
- In Kiribati the SECAP for the second phase of KOIFAWP introducing food preservation methods; adopting a virtuous circle approach with a focus on atoll

[45] https://play.google.com/store/apps/details?id=com.lucidcentral.mobile.pacific_pests&hl=en
46 Kenny G. (2019) GAFSP Vulnerability Analysis and Climate Resilience Guidance: Assessments of Climate Vulnerability and Resilience Options for Agriculture in FSM, RMI, Kiribati and Tuvalu. Working Paper.

permaculture, management and recycling of biological waste streams, and seed saving.

- In RMI the Project will be aligned with the five priority areas in RMIs Food Security Policy, considering also synergies with the recently-initiated Readiness for El Niño project.
- In Tuvalu the Agriculture Strategic Marketing Plan has a strong emphasis on local food production and consumption. SIFWaP will build on approaches to soil and water management developed by the Taiwan horticulture project; and the GEF Integrated Water Resources Management (IWRM) project which demonstrated the use of compost toilets as a source of fertiliser.

**Water, hydrology and seawater intrusion** issues are similar across all four countries with many water and sanitation initiatives providing suggestions about adaptation measure that could be deployed. These include: (i) the Readiness for El Niño initiative funded by the EU (due for completion by the end of 2020), and the recently approved GCF project for RMI; and (ii) the composting toilet initiative in Tuvalu which been promoted as a success story in addressing sanitation issues on densely populated atolls. Composting toilets save water, reduce groundwater contamination and provide valuable fertiliser for gardening.

There are a number of **cost-effective energy** solutions which have the potential to improve the availability and reduce the cost of energy on small islands whilst also reducing emissions. Solar drying is likely to be the most cost-effective energy solution for processing and storage, and potential sale, of surplus crops. There are at least two relevant initiatives in the development of suitable low-cost solar dryers. Traditional fermentation techniques are another viable option for processing surplus crops from breadfruit in particular.

There are a number of initiatives underway aimed at improving **weather and climate services** so that farmers and fishers can access and utilise information on short, medium and long-term climate variations and learn how to manage climate better. A simple approach for knowledge enhancement and empowerment of local communities is to introduce rain gauges. Recording rainfall, together with monitoring local knowledge indicators, is a simple and powerful way to empower people towards more effective management of their limited water resources.

## 3. Environmental and Social Category

SIFWaP is assessed as Environmental and Social **Category B**. According to IFAD's SECAP guidelines, Category B projects may have some adverse environmental and/or social impacts on human populations or environmentally significant areas, but the impacts: (i) are less adverse than those for category A; (ii) are site-specific and few are irreversible in nature; and (iii) can be readily remedied by appropriate preventive actions and/or mitigation measures. Category B projects require an environmental and social management plan (ESMP), which is incorporated in the SECAP review note in the form of a matrix. The ESMP matrix must be integrated into the Project Implementation Manual (PIM) or developed as a stand-alone guidance document late in the design stage or early in implementation.

There are several reasons why the project is classified as Category B. The community consultation approach that provides the entry point for project engagement is expected to result in predominantly positive social outcomes, but with some risks of elite capture and failure to include vulnerable groups. There are also growing concerns about increasing gender-based violence in rural communities associated with the COVID-19 restrictions on social distancing and movement, together with financial hardship from reduced economic activity and remittance flows. Health issues also need to be carefully managed in view of

poor nutrition and sanitation, the very limited availability of health services on outer islands, and climate-related health challenges.

The non-prescriptive approach to selecting both public and private good interventions also carries some risks which need to be managed. The exclusion list is expected to screen out obviously inappropriate proposals at an early stage, but the otherwise open menu of options calls for prior assessment of risks during the evaluation and approval process. For water-related investments the process must be informed by a hydrological assessment to ensure that scarce resources are sustainably managed. Similarly, investments in feeder roads or small-scale agro-processing facilities need to be assessed to minimise the risk of adverse outcomes. Procedures for doing this will be detailed in the ESMP and the PIM along with appropriate mitigation/monitoring measures, including responsibilities and costs.

The approach to management of social and environmental risks also recognises the limited technical, financial and institutional capacity to assess proposals, monitor results and where necessary, enforce regulations. Environmental policies, laws and regulations are generally well developed at national level but the capacity to implement these is particularly weak on outer islands where local government and Island Councils are responsible. SIFWaP will accommodate these weaknesses by ensuring that the community consultation approach, which spearheads the selection and implementation of intervention plans, gives due consideration to social and environmental risk minimisation.

## 4. Climate Risk Category

The Project is assessed as having **high climate risk** based on both observed trends and climate forecasting models. The atoll environment is critically sensitive to rising sea level and temperatures which will place pressure on agricultural productivity and fresh water supplies for drinking and sanitation as well as food gardens. According to IFAD's SECAP Guidelines a **detailed climate risk assessment** is required for each island and community selected for participation in the Project. The assessment will be undertaken after the Project areas (islands and communities) have been defined according to the screening and selection criteria (which include climate risk) detailed in para 30. The assessment will aim to: (i) improve the robustness of investments affected by climate-related hazards; (ii) increase the resilience of development outcomes; and (iii) avoid interventions which inadvertently increase vulnerability to climate hazards over the longer-term. The assessment will:

- Detail projected climate change impacts in the Project areas (countries/islands/ communities) based on climate models and scenarios.
- Identify the occurrence of climate-related hazards in the target areas including a historical analysis of hazard types, intensities, frequencies and associated losses and damages.
- Consider the likely impacts of climate change on agriculture, fishing, water supply and health in participating communities, identifying communities or groups who may become more vulnerable as a result of Project interventions.
- Identify "hot-spots" where the exposure of livelihoods, ecosystems and infrastructure is most vulnerable to climate hazards.
- Evaluate the impact of climate change along value chains.
- Prepare recommendations on how climate risks in the Project areas can be mitigated or minimised within the implementation framework.
- Define key performance indicators and monitoring arrangements for climate risk management.

## 5. Recommended Features of Project Design and Implementation

## 5.1 Environmental and Social Mitigation Measures

The Project is not expected to have significant negative environmental and social impacts. However, there is always a possibility of unintended and un-expected consequences, which call for appropriate precautionary measures. The Environmental and Social Management Framework (EMSF) shown in Attachment 2 to this SECAP Note; and the Environmental and Social Management Plan (EMSP) to be prepared during Year 1 of SIFWaP implementation, will re-assess the risk of negative impacts once the specific project activities and their geographical locations are known with greater certainty.

In Component 2, investments in water supply for domestic use and food gardens are expected to be popular choices arising from the community consultation process. Given the severely constrained water supply situation on the more heavily populated atolls such investments need to be informed by prior assessment of hydrological options and well-planned arrangements for sustainable management of the resource including formation and capacity building for water user groups (WUGs). The hydrology study being undertaken in parallel with this SECAP will provide further guidelines on water supply options and the criteria for selecting among them. However, there will still be a need for case-by-case evaluation of water supply proposals from a social and environmental perspective, and for capacity-building in sustainable water management at local government/Island Council level, as well as among the WUGs. The ESMP will therefore include an environmental and social screening template to guide implementing agencies and community groups in evaluating proposals for matching grants.

Other public good investments under Component 2 will also be subject to environmental screening during the process of design and application for Project support. Where risks are identified, appropriate response measures will be adopted. For example: fish markets should have provision for cleaning and waste disposal: feeder roads should avoid environmentally sensitive areas in both routing and sourcing construction materials; composting schemes should use sustainable sourcing; school/community gardens should demonstrate responsible agricultural practices; community fisheries management schemes should be based on sustainable yield levels; and pest and invasive species management should give due consideration to safe use of chemicals.

Similar safeguards will apply to the selection and oversight of private good activities. Few agrochemicals of artificial fertilisers are used in the participating countries and in some cases, they are banned. The Project will prepare model activities profiles for each type of intervention included in the menu of private good options shown in Box 2 and these will include recommendations for environmental management where necessary.

In Component 1 social and environmental considerations will be mainstreamed in the community consultation process according to procedures detailed in the PIM and will also be reflected in the ESMF and ESMP. The selection of NGO partners to facilitate the consultations will give due consideration to their track record in socially inclusive and environmentally responsible support for small island communities, and the application of appropriate safeguard mechanisms. Preparation of training materials and recruitment and training of Island Facilitators and Community Field Officers will also serve to raise awareness and promote positive outcomes, whilst minimising downside risks.

Under Component 1, there are also a number of options available for maximising positive health impacts and offsetting the risk of negative outcomes. These focus on improving awareness about food, nutrition and health, including knowledge about the nutritional attributes of foods, food preparation and handling. Specific activities may include: (i) gathering and disseminating information on the nutritional attributes of indigenous foods (plants/crops, animals, seafood etc.); (ii) selecting and training model households to demonstrate good nutrition and health/sanitation practices; (iii); providing recipes and

cooking lessons/demonstrations; (iv) adapting school curricula and nutrition/health training for teachers; (v) sharing of traditional knowledge by elders to younger generation and documenting this knowledge; and (vi) establishing food gardens in schools for training and to provide nutritious foods for school meals. A nutrition focal point for the project will be recruited to ensure convergence of interventions, coordination and management of nutrition mainstreaming.

### 5.2 Climate Change Adaptation and Mitigation

Since the participating countries make a negligible contribution to climate change, the Project will focus on adaptation, recognising that all of the impacts of climate change can be either amplified or mitigated by direct human interventions. Climate adaptation/ resilience measures incorporated in every component and sub-component of the Project as follows:

| Component/Sub-Component | Adaptation Measures |
|---|---|
| **Component 1: Community Engagement** | |
| 2.1 Community Consultation and Mobilisation | • Engage NGO service providers with capacity to facilitate climate adaptation.<br>• Training for Island Facilitators and Community Field Officers in climate adaptation.<br>• Awareness raising about climate variability, climate change and adaptation options. |
| 2.2 Nutrition and Health Awareness | • Awareness raising about linkages between climate, agriculture, nutrition and health. |
| **Component 2. Investments in Food, Nutrition and Water Security** | |
| 1.1 Private Good Investments | • Investments in climate resilient agricultural production systems.<br>• Training and backstopping for individuals and groups on CSA approaches. |
| 1.2 Public Good Investments | • Focus on water security for food gardens and domestic use, including measures such as micro-irrigation, rainwater harvesting etc.<br>• Hydrological assessments to ensure that water supply investments are sustainable.<br>• Formation and support for WUGs in sustainable management of water resources |
| **Component 3: Enabling Policy Framework** | |
| 3.1 National Policies and Strategies | • Support for inter-agency platforms to develop policies and strategies for sustainable water, food and nutrition strategies in the context of climate change. |
| 3.2 National Agricultural Investment Plans | • Mainstreaming of climate adaptation in investment plans |
| **Component 4: Project Coordination and Management** | |
| 4.1 Project Coordination | • Project/Country Steering Committees will be responsible for ensuring that implementation aligns with national and international commitments on climate adaptation. |
| 4.2 Project Management | • TORs for all project management staff will detail responsibilities for facilitating climate adaptation. |
| 4.3 M&E and Knowledge Management | • M&E system will include climate adaptation indicators as well as social inclusion indicators and will monitor and report on results. |

The Project will adopt a virtuous circles approach47 to build climate resilience across all activities supported. This approach holds that linear systems are inherently flawed in that they assume a limitless supply of resources and a limitless capacity for the environment to absorb waste. Circular economy models that re-integrate food and energy production with water and waste management generate jobs and incomes in rural areas and ensures that wealth created stays within the local economy.

As proposed in the KOIFAWP Phase 2 SECAP Review Note, four specific measures are recommended to enhance climate resilience based on the virtuous circles approach.

- A stronger focus on management and use of biological waste streams including composting of human and livestock (e.g. piggery) waste drawing on successful permaculture work in Ontong Java (an atoll group in Solomon Islands) and composting demonstrations under the ACIAR Soil Health Project in Tuvalu and Kiribati.
- Extending home gardening activities which utilise household food waste and wastewater and provide a ready supply of nutritious food. This will be based on an agro-forestry system that can be sustained in harsh atoll environment conditions, and involves use of leguminous crops which provide shade, mulch and a source of nitrogen, along with a mix of fruit and vegetable crops.
- Use of non-hybrid/open-pollinated seed together with training in seed saving to avoid having to buy seed for each crop.
- Food preservation through traditional practices and solar drying to reduce wastage and avoid food shortages during droughts, natural disasters or other times of need when it might otherwise be necessary to consume imported food.

### 5.3 Multi-Benefit Approaches

The great majority of Project interventions are expected to deliver multiple benefits including: (i) increased agricultural production; (ii) improved diet quality for better nutrition/health; (iii) poverty reduction; and (iv) building climate resilience. The approaches outlined in Sections 5.1 and 5.2 will develop a deeper understanding of environmental and community resources and capacity on each island and within each island community. It will promote the virtuous circle approach to enhance local environments, improve health of communities and build climate resilience. At the same time this approach will provide valuable skills for the future in the event that affected communities are forced by sea level rise to relocate.

### 5.4 Incentives for Good Practices

Experience during the implementation of KOIFAWP demonstrates that with appropriate facilitation and support, small island communities are ready to adopt a range of good practices covering climate-smart agriculture, water management, infrastructure development etc. This reflects the substantial up-front investment in community consultation under Component 1, providing communities with the time they need to weigh up alternatives and make informed decisions about their investment priorities.

The use of a matching grant facility is also a key element of the incentive structure. The operational details for this facility will be developed during Project preparation and will aim to strike a balance between ownership and incentive. Communities and groups receiving grants will be required to make a meaningful contribution to the cost of the project to demonstrate ownership and commitment, recognising that their capacity to make cash

47 Based on Jones A. Pimbert M. and Jiggins J. (2012) Virtuous Circles: Values, Systems, Sustainability. International Institute for Environment and Development.

contributions is very limited. Contributions will come mainly in the form of land, labour and materials. The grant application and approval protocols will also ensure that the activities to be funded follow good practices, and that disbursements are output based, with provision to suspend or cancel funding in case of non-compliance with the grant agreement.

### 5.5 Participatory Processes

The processes for selection, design and implementation of project interventions is highly participatory. The participatory approach will gather and analyse information on the climate vulnerability and adaptive capacity of communities and identify adaptation measures that combine community knowledge and scientific data to improve understanding about local impacts of climate change from the communities themselves.

The process will begin with the establishment of an implementation framework for community engagement and preparation of action plans followed by prioritisation of community problems and action plans, identification of beneficiaries and estimated costs. This will contribute to the creation of sensitised and enabled communities with the capacity to diagnose, prioritise and implement activities to address food, nutrition and water security (Outcome 2). The implementation of these activities will also be community-led with activity groups formed and private investments supported to increase production of nutritious foods for home consumption and/or scale (Output 1.1) and for the installation and maintenance of public good investments, likely to be mostly water supply infrastructure (Output 1.2).

5.6. Gender Equality – considering the prevalence of gender inequity in the FSM, the following recommendations are provided to ensure effective gender mainstreaming during project implementations:

- Establishing more effective baselines for gender inequality in agriculture and food security will help to better target interventions going forward and support the sustainability of gender balanced results.
- To empower women to contribute their skills and knowledge and applying climate resilient techniques and crop varieties to local community contexts.
- To ensure that women have an equitable opportunities to utilizing the available information.
- To ensure that it is providing focused support to addressing structural barriers in the design of its market activities. With market access, women are likely to have additional barriers to capitalizing on new markets and opportunities for diversified and improved livelihoods (i.e. transportation, social barriers, etc.)
- There is a critical need to engage both formal and informal women's organizations to build awareness and create buy-in for addressing the issue of climate change in agriculture
- To proactively work to ensure the full participation of women in decision-making in the existing issues representation in decision-making at both the government and household/community level.

  To proactively engage community leaders for ensure activities are gender responsive.

## 6. Analysis of Alternatives

The extreme isolation of small island communities and the unforgiving atoll environment provides few alternative livelihood options. This accounts for the low level of diversity in

livelihood modalities with almost all households surviving on the basis of artisanal/subsistence fishing, small livestock (pigs, poultry), subsistence food gardening and limited cash cropping, mainly confined to copra; supplemented by income from government employment and remittances. The limited purchasing power in island communities and weak transport linkages between outer islands and the capitals severely constrain opportunities for small-scale commercial agriculture, livestock and fishing activities.

The "do nothing" option, leaving islanders to cope as they are with no outside support, threatens the existence of many small island communities, with remedial measures likely to come at very high cost. There is already evidence of serious environmental degradation and social costs on the target islands, which is recognised by the communities themselves. They are experiencing groundwater contamination, seawater intrusion, coastal erosion and deteriorating health. Periodic droughts and declining fish catches are decreasing the availability and increasing the cost of nutritious food. Faced with these challenges, the environmental, social and economic cost of doing nothing is likely to be very high.

In the case of water supply the options (to be elaborated in the concurrent hydrology review) are rather limited and include groundwater, rainwater harvesting and desalination. Groundwater on several of the heavily populated islands is already contaminated and/or salinized to the point where it can no longer be used. On some of the less heavily populated atolls, and on the volcanic islands of FSM, groundwater management is still a viable option, provided sustainable management regimes are in place. On many atolls improved rainwater catchment schemes are the most attractive option, and KOIFAWP has developed model schemes involving small groups of households sharing facilities under the control of WUGs. However, rainwater catchment facilities require substantial storage tanks to accommodate normal rainfall variability and can still fail during prolonged droughts. When this happens, communities have to resort to more expensive options including desalination and importation of drinking water.

For crop and livestock production the options range from high input/intensive systems to traditional low input/low output approaches. The very high cost of importing seeds, fertilisers, pesticides livestock feeds etc., and the environmental risks associated with their use on densely populated atolls more-or-less precludes this option. Instead the Project will promote the revival of indigenous agroforestry and compositing systems to recycle nutrients, control pest and diseases and maintain agricultural biodiversity according to the virtuous circle concept.

# 7. Institutional Analysis

## 7.1 Institutional Framework

In each participating country the institutional framework for environment, social and climate change management will be mobilised to ensure adequate management, monitoring and reporting on risks and impacts likely to be generated from project activities. The ESMF and the ESMP will define the appropriate policies and institutions to be responsible, necessary legislation and regulations, institutional capacity building needs, the role of international conventions and alignment with Pacific regional policies and programmes.

**Institutional Framework**

## 7.2 Capacity Building

**Capacity Building**

Capacity building support will be embedded in all Project Components as detailed in the Project Design Report with a focus on the island/community level (and at State level in FSM), but also within national institutions where needed. At all levels. capacity building will raise awareness about the importance of gender equality, youth engagement, nutrition, disability and social inclusion , environment and climate change issues; and offer practical solutions to their management aligned with the project objectives of improved food, nutrition and water security and livelihood opportunities.

Capacity building for food and nutrition security will take place within Sub-Component 1.1 in the form of gender sensitive training and backstopping for beneficiaries on sustainable and climate resilient food production systems such as home gardens, mulch production, waste re-cycling and agro-forestry employing the virtuous circle principles articulated in Section 6.2 and 6.3 above. In Sub-Component 3.1 the Project will facilitate formation and support for national food, nutrition and water security Task Forces and provide technical assistance to refine and update environmental and climate change polices/strategies taking into account the specific realities of women, men and young men and women. The project will ensure that the women and youth are represented at decision making levels within these Task Forces. The project will also support government programs aimed at addressing violence against women at various levels in coordination with the other development partners.

**6.** Climate-related challenges to water security, water safety and sanitation will be addressed in Sub-Component 1.2 through the formation, training and backstopping of WUGs in for sustainable operation and management or rainwater harvesting and other water supply systems servicing small island communities. This reflects the risk of water shortages and/or water quality deterioration affecting public health, and the burden of water collection which usually falls on women and children. Capacity building for local governments/Island Councils in water management may also be provided, together with policy and institutional support under Sub-Components 3.1 and 3.2.

**7.** Capacity building to enhance community resilience to environment and climate challenges will be undertaken in Component 2 through training of Island Facilitators, Community Field Officers and Community Committees in consultative/participatory processes to identify and design investment projects to have positive social and environmental outcomes. The guidelines and selection criteria detailed in the PIM will ensure that investment projects are socially inclusive and deliver the positive outcomes envisaged. Community consultations will also identify model households and activity leaders to undertake demonstrations and training for group members in activities including, but not limited to: home gardening, essential oils, seaweed production, agrotourism, water supply, hydroponics, and livestock.

### 7.3 Additional Funding

The US$ 12.0 million funding package available from GAFSP, which includes a project preparation grant facility of US$ 0.35 million is sufficient to undertake all of the preparatory activities and initiate Project implementation across all four countries. However, only Kiribati has experience with the proposed implementation modalities and IFAD supervision and reporting protocols. The Project's capacity to absorb additional funding is therefore likely to be limited at least up until mid-term. However, once the Project is fully operational and delivering results, possibilities for mobilising additional resources should not be overlooked. Sources of additional funding may include:

- The Global Environment Facility (GEF) including its Least Developed Countries Fund (LDCF) – which is currently supporting food security on the outer islands of Kiribati; and its Special Climate Change Fund (SCCF).

- The Green Climate Fund (GCF).
- The Adaptation Fund.
- IFAD's Adaptation for Smallholder Agriculture Programme (ASAP).
- The Asian Development Bank (ADB) – mainly for infrastructure investment.
- Key bilateral agencies including DFAT (Australia) and MFAT (New Zealand) that have active country programmes in Kiribati and Tuvalu; and USAID, Korea and Japan in FSM and RMI.

## 8. Monitoring and Evaluation

M&E at national level will be the responsibility of the National Delivery Units, each of which will have an M&E officer. A standardised M&E and reporting system will be employed across all four countries to facilitate aggregation. All data will be age disaggregated and include specific indicators on youth participation M&E reports will be consolidated at project level by the Central Project Coordination Unit.

As a Category B and high climate risk project SIFWaP requires the development of an ESMP and a detailed climate risk assessment for each participating island and community. Both of these will recommend indicators to be incorporated in the M&E system to track social, environmental and climate adaptation results, including consideration of the indicators already included in the Logframe/Results Framework in Appendix 1 of the Project proposal document.

The ESMF and ESMP will specify environmental, social and climate adaptation indicators to be integrated within the Project M&E System to be designed during the first six months of the Project. It will specify procedures for obtaining baseline information, and gathering data on implementation results and outcomes.

Appropriate IFAD's core indicators for social inclusions themes (i.e. 1.1.8 "percentage of women reporting MDDW, I.E. 2.1. Empowerment Indicator" will be incorporated in the baseline survey and tracked at MTR and completion as needed.

The SECAP Review has been prepared on the basis of the Project proposal completed in 2019, and will be reviewed/refined during detailed project formulation to be undertaken when the current COVID-19 travel restrictions allow. Further consideration will be given to the legal, regulatory and institutional context in each of the four countries to ensure that the recommendations are tailored to local circumstances.

Several background studies have also been prepared in parallel with the SECAP drafting process covering hydrology, agricultural marketing, farmer/community organisations, nutrition and climate change. These are available as Working Papers.

## 9. Budgetary Resources and Schedule

Refer to project cost estimates.

## 10. Stakeholder Consultations

The SECAP is based on document review and desk work, and informed by the stakeholder consultations that took place during preparation of the Project proposal during 2019. The consultations involved a cross section of stakeholders who have concerns and priorities about project environment and social risks and impacts, as well as the associated mitigation mechanisms and benefits. These concerns are reflected and guide the mitigation and adaptation measures recommended in the ESMF/ESMP.

The SIFWaP proposal was prepared with the support of a joint IFAD/FAO team which worked in close consultation with the four applicant countries between May and August 2019. The process was enabled by: (i) grant funding from GAFSP to FAO to assist proposal preparation; (ii) the Australian Department of Foreign Affairs and Trade (DFAT) to support background studies on nutrition and climate change issues; and (iii) IFAD to support the applicants in project design and preparation of the proposal. The work included one or more visits to each of the applicant countries and extensive consultations, with local stakeholders, development partners and regional organisations. A list of all organisations and individuals consulted is included in the GAFSP Proposal of September 2019.

Women, youth, outer island communities and other marginalised groups were an integral part of the consultation and design process and their vulnerabilities and concerns were factored into the project approach and implementation modalities. Meetings were conducted in local languages to ensure that participants all felt comfortable voicing their opinions. Women accounted for about 43% of meeting participants in Tuvalu, 42% in Kiribati, 53% in the RMI and 48% in the FSM. The key steps in the stakeholder consultation process were as follows:

- A scoping workshop held in Tarawa (Kiribati) on 20-23 May 2019 was attended by IFAD, FAO, DFAT and representatives from each country. The workshop reviewed agriculture and food security priorities, agreed on the basic elements of a multi-country approach, and the agenda for project design and proposal preparation. A project concept note was prepared based on the workshop deliberations.
- A project design mission was undertaken from 11 June to 15 July 2019 comprising FAO, IFAD and country representatives. The work included:
    - a participatory review of the agricultural and food security strategies, policies and investment plans for preparing Part 1: Country Readiness of the GAFSP proposal; and
    - Meetings, factfinding and consulting with stakeholders to reach agreement on the approach to be adopted in each country, and for the project overall, in order to inform the preparation of Part 2: Proposal Readiness.

In Fiji the mission met with regional organisations and development partners including FAO, WFP, SPC, and the European Union. It then proceeded to Tuvalu, Kiribati, RMI and FSM where in each case the lead agency convened a one-day stakeholder consultation workshop. These were attended by over 200 persons representing rural communities, producer organisations, academia, government agencies, NGOs/CSOs, Faith-Based Organisations, development partners and the private sector. The structure of the meetings ensured that representatives from the Government, civil society and the private sector were all given a chance to discuss their priorities. The mission spent approximately one week in each country and undertook visits to several outer islands (RMI and Kiribati) as well as consultations with key national agencies responsible for agriculture, fisheries, environment, health, planning and finance.

A validation workshop was held in Tarawa on 12–14 August 2019 for the purpose of reviewing the draft proposal and to agree on the overall framework and structure of the project, implementation and financing arrangements, the budget allocations between countries and components, the role of FAO and IFAD as supervising entities, and other formalities required to finalise the proposal for submission to GAFSP.

**Attachment 1: GAFSP Vulnerability Analysis and Climate Resilience Guidance**

*Summary of key points from: Working Paper on "Climate Variability and Resilience Options for Agriculture in FSM, RMI, Kiribati and Tuvalu" prepared by Gavin Kenny, 2019.*

**Climate variability and change**

- FSM, Kiribati, RMI and Tuvalu are among the most vulnerable countries in the world to climate change.
- The main climate risks of relevance to agriculture are drought and tropical cyclones. The limited water availability and low elevation of the small atoll islands makes them particularly vulnerable to these extreme weather events.
- Certainties associated with climate change include sea level rise, rising temperatures and temperature extremes, and increased rainfall and extreme rainfall events (except in Tuvalu). There is more uncertainty relating to future drought risk and considerable uncertainty relating to changes in tropical cyclones. Global evidence suggests fewer but more intense tropical cyclones in future.

**The regional context for climate resilience**

- The Framework for Resilient Development in the Pacific (FRDP) provides broad guidance that encompasses: an integrated approach aimed at enhanced resilience to climate change and natural disasters; low carbon development; and strengthened disaster preparedness, response and recovery.
- The FRDP aligns strongly with integrated approaches that are increasingly evident in individual countries and is broadly consist with the principles of climate smart agriculture (CSA) and the building of resilience in communities and their local environments.

**Climate smart agriculture and a virtuous circle resilience approach**

- CSA first emerged in 2009 and encompasses three objectives: sustainably increasing productivity and incomes; building resilience to climate change; and reducing and/or removing GHG emissions.
- CSA is an integrated, interdisciplinary, approach that needs to be tailored to specific situations and requires comprehensive capacity building.
- A virtuous circle resilience approach is aligned with the principles of CSA, but places much stronger emphasis on sustainable management of waste streams and building diverse and resilient food systems that address basic household needs while enhancing and protecting the environment.

**Climate smart agriculture varieties and practices**

- The atoll permaculture work of Jasper Bonie in the outlying islands of the Solomon Islands is of high relevance to the proposed project. Linkages with this work are recommended.
- In FSM there is evidence of very successful community engagement activities, focused on agriculture and gardening, involving a range of expertise and a number of NGOs. The project needs to establish fully where this expertise lies, which NGOs are still active, and identify clearly where the gaps are both geographically and in terms of community needs.
- In Kiribati it is recommended that there be a focus on cataloguing and replanting of as many of the 200 traditionally used edible pandanus varieties as possible. Relevant recommendations prepared in the SECAP prepared for the Kiribati KOIFAWP project include: identifying and addressing gaps in pre-existing island

reports; introducing and/or improving and reviving food preservation methods, extending to not just staples, but also for fruit and vegetables; adopting a virtuous circle approach with a specific focus on atoll permaculture, management and recycling of all biological waste streams, and seed saving.

- The project is strongly aligned with the five priority strategic action areas identified in RMIs 2013 Food Security Policy. The recently initiated Readiness for El Niño (RENI) project in RMI is of high relevance to the project and it is essential for synergies to be developed.
- The Tuvalu Agriculture Strategic Marketing Plan (TASMP) has a strong emphasis on local food production and consumption. There have been, and are, a number of relevant projects in Tuvalu. The Taiwanese Horticulture expansion project involved extensive gardening work in Funafuti and Vaitupu. The previous GEF Integrated Water Resources Management (IWRM) project focused on establishing compost toilets, with compost used as fertiliser for gardening, is also very relevant work that needs to be replicated more widely.

**Water, hydrology and seawater intrusion issues**

- The freshwater and seawater issues are similar across all four countries with many water and sanitation initiatives undertaken in the past or presently underway. A thorough stocktake and review of what has been done is required to identify clearly where this project can add value in each of the four countries.
- The project should pay particular attention to the current Readiness for El Niño (RENI) initiative funded by the EU (due for completion by the end of 2020) and the recently approved GCF project for RMI. The latter in particular is a major new initiative.
- Extension of the IWRM composting toilet initiative in Tuvalu needs to be considered. This work has been promoted as a success story. Composting toilets provide a practical, solution for all atoll islands and other communities where there are water limitations and/or freshwater contamination issues. They save water, significantly reduce groundwater contamination and provide a valuable source of fertiliser for gardening.

**Cost-effective energy solutions**

- Solar drying is likely to be the most cost-effective energy solution for processing and storage, and potential sale, of surplus crops.
- Relevant work has been undertaken in the region focused on low-cost solar dryers. Two relevant initiatives have been identified but there will likely be more and further in-depth investigation of options is needed.
- Traditional fermentation techniques are another viable option for processing surplus crops from breadfruit in particular. It appears that such practices are still common in FSM in particular, although using modern utensils rather than pits. The potential of drawing on existing knowledge and experience needs to be explored.
- For small, isolated, atoll islands in particular the focus needs to be on supporting greater food security and building climate resilience, with a secondary focus on processing for sale.

**Climate services**

- There are a number of initiatives underway throughout the Pacific Island region aimed at improving climate services.
- There is increased emphasis on engagement with communities, but much still needs to be done.

- A simple approach for knowledge enhancement and empowerment of local communities is to introduce manual rain gauges. Recording rainfall, together with monitoring local knowledge indicators, is a simple and powerful way to build knowledge about climate and empower people towards more effective management of their limited water resources.

## Attachment 2: Environmental and Social Management Framework (ESMF)

### 1. Project Description

The project objective is to improve food, nutrition and water security and livelihood opportunities in the small island communities of the four countries. This objective will be achieved through three intervention pathways:

- Sensitising and enabling communities to diagnose, prioritise and implement activities to address food, nutrition and water security (Component 1).
- Investing in projects to address food, nutrition and water security at community, group or household level (Component 2).
- Developing an enabling policy framework for addressing food, nutrition and water security (Component 3).

Component 1 will be the entry point for engagement with small-island communities and beneficiaries, focusing on community planning and awareness raising. By focusing on engaging communities, this component will ensure the relevance, ownership and sustainability of these investments. Component 2 will focus on the hard investments for food, nutrition and water security and comprise more than half of the project budget. Component 3 will improve the enabling policy environment, primarily at the national level to facilitate access to resources and programmes supporting these results over the long term. All these activities will further contribute to improving livelihoods.

Project coordination will be undertaken by a Project Steering Committee (PSC), comprising two representatives from each of the four countries, IFAD and FAO. Each country will also have a small Country Project Steering Committee (CPSC), chaired by the Ministry of Finance and comprising representation from the lead implementing agency, other implementing partners, civil society and the private sector.

### 2. General Approach

The study methodology comprised collection and review of primary and secondary data, consultations with key stakeholders, local-based national and international consultants and Ministries' representatives. It must be noted that other investment options may emerge during the community consultation processes and can be considered eligible for support which are consistent with Project objectives and targeting criteria. The ESMF will need to reflect these public and private interventions at a later stage.

As the exact nature, scope, magnitude and geographical locations of the project interventions have not yet been determined, and Environmental and Social Management Framework is prepared instead of site-specific environmental and social impact assessments (ESIAs) and environmental and social management plans (ESMPs) for the various subprojects. The Environmental and Social Management Framework (ESMF) guides the Project Implementation Unit on the screening of subprojects to determine level or environment, social and climate risks and impacts and subsequently will inform the design, and to guide the preparation of ESIAs or ESMPs for the subprojects.

The ESMF will be used by the Central Programme Management Unit (CPCU), the National Delivery Units (NDUs) and Island Councils to ensure that all environmental, social mitigation measures are adequately addressed throughout the project implementation period.

The main purpose of the ESMF is to:

a) Establish clear procedures and methodologies for the environmental and social assessment, review, approval and implementation of investments to be financed under the project;

b) Specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring environmental and social aspects related to project investments;

c) Determine the training, capacity building and technical assistance needed to successfully implement the provisions of the ESMF;

d) Provide practical information resources for implementing the ESMF around the thematic areas of food, water and nutrition security as well as good agricultural management practices through planning, commitment and continuous improvement of environmental practices.

## 3. Description and Typology of Sub-Projects

The Project comprises three main components:

- **Component 1** will be the entry point for engagement with small-island communities and beneficiaries, focusing on community planning and awareness raising. By focusing on engaging communities, this component ensures the relevance, ownership and sustainability of proposed investments.
- **Component 2** will focus on the hard investments for food, nutrition and water security through grant mechanisms and comprise more than half of the project budget.
- **Component 3** will improve the enabling policy environment, primarily at the national level, to facilitate access to resources and programmes supporting these results over the long term. It will also support government programs aimed at addressing GBV in collaboration with the other development partners. All these activities will further contribute to improving livelihoods and wellbeing.

As shown in the box below, the Project supports two types of investments (community/public and private good activities).

**Box 1: Indicative List of Activities to be Supported**

| Community/Public Good Activities | Private Good Activities |
|---|---|
| • Fresh produce markets, fish markets, handicraft markets<br>• Transport infrastructure, feeder roads<br>• Water supply systems: wells, rainwater catchment, solar distillation, desalination<br>• Community level schemes for composting, cold storage nurseries etc.<br>• School/community gardens<br>• Community fisheries management schemes<br>• Pest and invasive species management | • Composting equipment (including shredders)<br>• Nurseries/seed production inputs and equipment<br>• Small livestock and equipment<br>• Fishing, aquaculture, seaweed and equipment<br>• Home gardens, hydroponics<br>• Root crops, fruit and vegetables<br>• Storage facilities: cold-stores, freezers<br>• Tree crop replanting: coconuts, breadfruit, bananas<br>• Agro-processing, food preservation, virgin coconut oil, breadfruit flour, and banana chips, coconut sap sugar, pandanus juice etc.<br>• Solar-powered equipment such as poultry incubators, driers and pumps<br>• Household scale biogas digesters |

| **Box 1: Indicative List of Activities to be Supported** | |
|---|---|
| • Solar street lights, solar mini/micro-grids, solar Wi-Fi___33 access points | • Non-farm income generating enterprises, e.g. furniture making, brick manufacture |

For public investments, there are three categories of investments. **Large subprojects** have a budget envelope of more than US$ 40,000. For example, this could entail financing a desalination plant at village-level. In this case, the ESMF provides guidance on proper site selection, screening for environmental and social risks and impacts and site-specific environment and social impact assessments will be carried out during implementation to ensure that hydrology studies and water demand assessments are conducted for proper designing and sizing the desalination system. Additionally, the ESMF will guide project teams to assess the viability to run the plant with renewable energy sources.

The second category is **medium subprojects** between US$ 10,000 to US$ 30,000, for example, for financing community-level cold storage nurseries. From an environmental and climate perspective, certain aspects to look into prior to financing such activities would include ensuring a stable source of energy for the cooling system given that most of the target countries do not have reliable access to electricity and primarily depend on imported diesel fuel.

The last category under public investments is **small subprojects** – less than US$ 10,000. This could entail financing solar street lights or solar Wi-Fi___33 access points at island councils or in schools. A summary of the thresholds for the three main public investment categories can be seen below:

| **Public Good Investments** | **Beneficiaries** | **Project** |
|---|---|---|
| Large projects (> US$ 40,000) | 10% | 90% |
| Medium projects (US$ 10,000 to 30,000) | 20% | 80% |
| Small projects (< US$ 10,000) | 30% | 70% |

For private investments, there are also three categories as shown in the table below. *Small nutrition/subsistence-oriented activities* include support to establishment of nurseries, seed production and inputs.

The second category, *semi-subsistence/semi-commercial activities,* might entail financing small livestock and sheds or composting equipment such as construction of pits or small-scale machinery (shredders, chaff cutters).

The third category, *small-scale commercial activities* relate more to activities involving agro-processing or setting up a small-scale virgin coconut oil (VCO) production plant.

For all public and private investments, beneficiary contribution (financial or in-kind) is expected to be leveraged in order to ensure ownership and sustainability of the interventions.

| **Private Good Investments** | **Beneficiaries** | **Project** |
|---|---|---|
| Small nutrition/subsistence-oriented activities | 10% | 90% |
| Semi-subsistence/semi-commercial activities | 20% | 80% |
| Small-scale commercial activities | 30% | 70% |

The SECAP review note points out some of the mitigation measures that need to be in place for various investments. For example, fish markets should have provisions for Health and Safety measures including solid and liquid waste management plans. Feeder roads should avoid environmentally sensitive areas in both routing and sourcing construction

materials; composting schemes should use sustainable sourcing; school/community gardens should demonstrate responsible agricultural practices; community fisheries management schemes should be based on sustainable yield levels; and pest and invasive species management should give due consideration to safe use of chemicals (SECAP, pg. 22).

Overall, given the small populations in target locations, the scale of public and private investments are small in nature, scope and magnitude. The climate that will affect the sustainability and viability of the SIFWaP (both positively and negatively). However, the project will both adversely and positively have impacts on the environment. Primarily, the Project will need to assess risks and impacts rising from project interventions on social aspects (i.e. youth employment and gender-based violence), land availability, water resources and energy self-sufficiency.

In particular, caution is required for water-supply investment options. Having water of a quality that is fit for purpose is important. Water quality can affect plant growth, livestock health, soil quality, farm equipment and domestic use. The quality of a water source is also variable depending upon weather and external inputs. In Component 2, investments in water supply for domestic use and food gardens are expected to be the preferred choices arising from the community consultation process. Given the severely constrained water supply situation on the more heavily populated atolls, such investments need to be informed by prior assessment of hydrological options to determine the safe yields from the ground water, identify any adverse impacts of extracting bore water on nearby shallow wells and tidal and rainfall influences on the groundwater level. In January 2021, a hydrological study had been commissioned by the Project. The preparatory study was conducted by SPC's Geoscience, Energy, and Maritime Division and seeks to inform the design of the sub-projects.

The major potential risks with regards to water quality relate to rising sea level and consequent increase in the salinity level of soils but also due to of seawater intrusion into the thin freshwater lens. Desalination plants can be a community-level response however the costs are extremely elevated and the local skills available limited for daily operation and maintenance.

Well-planned institutional arrangements for sustainable management of water resources will also be key. This includes formation and capacity building for water user groups (WUGs). In order to maximize the impact of water-related project interventions, the project implementation units would be required to address a number of environmental and social aspects. A screening template is provided in Annex 1 which can guide CPCUs and NDUs on investment options, in particular, water supply options and the criteria for selecting among them.

## 4. Legal, Policy and Regulatory Requirements for Sub-Project Implementation

The SECAP Review Note describes the administrative, policy and regulatory framework relevant to environmental, social and climate change concerns in the four countries[48]. All four countries have a range of laws, regulations, policies, plans and institutions covering agriculture, fisheries, climate change, environment, health and nutrition, which reflect their development aspirations in relation to food and nutrition security and building resilience. The lead implementing agency in each country is the ministry of department with responsibility for both agriculture and environment:

- FSM: National Department of Resources and Development (NDRD)
- Kiribati: Ministry of Environment, Land and Agriculture Development (MELAD)

48 See SECAP Review Note, paras 39-41, page 14

- RMI: Ministry of Natural Resources and Commerce (MNRC)
- Tuvalu: Ministry of Natural Resources (MNR)

Several of the four countries do not have comprehensive and current agriculture and food security sector strategies, although some are in the process of preparing or updating such plans. None of the countries have a National Agricultural Investment Plan (NAIP) which will be developed under Component 3 with overarching national development plans recognizing the importance of agriculture and fishing in rural livelihoods, food/nutrition security and plans for climate change adaptation and mitigation.

As cited in the SPC Hydrology Preparatory Study 2021 commissioned under the Project, preliminary environmental impact assessments should be conducted following the national legislation in the project countries and more specifically the "EIA Regulations 2014" for Tuvalu, the "EIA Regulations 1994" for RMI, the "Environment Act 1999" for Kiribati and the "Environmental Impact Assessment Regulations" of the FSM Environmental Protection Act. The project should follow the Pacific Waigani convention which the project countries have all ratified, aiming at prohibiting dumping of hazardous waste and ensuring availability of adequate treatment and disposal facilities for its management.

A waste management plan, which should be built in collaboration with local project stakeholders and existing waste management technical partners, will ensure all materials imported in the countries required for the proposed installations will be disposed appropriately (SPC, 2021).
One area that requires careful attention is for subprojects supporting pest and disease management or establishment of nurseries/home gardens with imported seed varieties. Within this scenario, biosecurity or quarantine is very important for all four target countries. FSM and RMI in particular are susceptible to pests and diseases in neighbouring countries Guam and Palau. For example, Guam has experienced challenges with the Coconut Rhinoceros Beetle (CRB) strain 2, and the Melon Fruit Fly, whilst Palau's agriculture sector has also been inflicted with the CRB and the Oriental Fruit Fly.

## 5. Exposure of Sub-Projects to Climate Risks and Natural Disasters

The SECAP Review Note provides comprehensive information on the exposure of target countries to climate risks and natural disasters, which are predominately related to difficult agricultural conditions, unstable access to water and vulnerability to climate change such as droughts and sea level rise leading to coastal erosion and soil salinity.49

Records from Pacific Island observation stations show warming over the past 50 years, with trends mostly between 0.08 to 0.20°C per decade, consistent with global warming over this time. Unlike temperature, rainfall across the Pacific Islands displays large year-to-year and decade-to-decade changes in response to natural climate variability. Over the past 50 years, rainfall has increased north-east of the South Pacific Convergence Zone (SPCZ) affecting FSM, RMI and parts of Kiribati, and declined to the south affecting the other parts of Kiribati and Tuvalu (SECAP, pg.7). Over the 1981-2007 period of satellite measurement there are no significant trends in the number of tropical cyclones, or in the number of intense tropical cyclones, in the South Pacific. However, this is a short period for the analysis of infrequent extreme events such as tropical cyclones. Determining trends over longer periods is difficult due to the lack of adequate data prior to satellite measurements.

49 For details on the current climate variability, trends and projections, see Section 1.3 in the SECAP Review Note (page 7)

The SECAP Review Note[50] identifies eight potential impact areas of climate change in the Pacific Island Countries (PICs), all of them exacerbated by other social and geopolitical factors which tend to amplify or accentuate the impacts. These include:

i. **Decline in agricultural productivity** due to increasing temperatures, higher evapotranspiration and extreme rainfall events.

ii. **Salinisation** of agricultural land due to sea water intrusion and/or inundation during storm surges.

iii. **Coastal erosion** due to rising sea level and coral reef deterioration.

iv. **Pollution of groundwater resources**, particularly the fresh water lens which is used for drinking water and watering gardens. During the project groundwater quality should be assessed. Initial assessment should cover a wide range of parameters (e.g. depth to water, pH, conductivity, nitrates, phosphates, faecal coliforms, heavy metals, turbidity, hydrocarbons, radionuclides) to provide a baseline and to identify potential suitability for use.

v. **Deterioration of coral reef and lagoon ecosystems**, resulting in declining catches of fish and other marine life. This is driven by ocean acidification and increasing water temperatures as well as a number of direct human causes including over-harvesting of lagoon and reef resources, inappropriate/destructive fishing techniques and lagoon siltation and pollution.

vi. **Increasing frequency of severe tropical cyclones**. The effect of tropical cyclones is aggravated by poorly enforced building and zoning regulations and inadequate disaster preparedness and recovery systems.

vii. **Threats to human health** related to higher temperatures and extreme rainfall events. Dengue fever outbreaks may become more common and flooding increases the risk of water borne diseases. In addition, declining agricultural productivity may exacerbate the already high level of Non-Communicable Diseases (NCDs) through increased reliance on poor quality imported food staples.

viii. **Increased frequency and severity of flooding** associated with extreme rainfall events. Flooding is confined mainly to the coastal plains and deltas of the volcanic islands. The atolls and coral platforms are not usually affected by flooding.

## 6. Procedures for Environmental and Social Screening of Sub-Projects

### Step 1. Screening for Environmental, Social and Climate Risks and Impacts Assessment

Screening for environment, social and climate risks and impacts will involve two steps, (i) screening for eligibility of the proposed subprojects, and (ii) eligibility screening and technical screening for assessment of potential impacts and E&S instruments to be prepared.

### 6.1 Eligibility Screening of Proposed Sub-Projects

All subprojects will be presented with a procedure involving a Project Brief Submission and Registration. As a first step, a developer proposing to start a subproject shall notify the Island Council in writing by submission of a Project Brief. The purpose of a Project Brief is to provide information on the proposed activity so as to enable Island Councils and lead agencies screen for potential environmental, social and climate risks and impacts, and determine the level of site-specific ESIA that will be required. The principle of avoidance usually applies for subprojects that can create significant loss or damage to nationally

50 See para 22, page 9

important physical cultural resources, critical natural habitats, and critical natural forests. These subprojects would not be eligible for financing under the project.

The first level of eligibility screening of sub-projects is conducted by Island Councils. As such, the Project, through its Component 1, offers a platform for community consultations involving all stakeholders. All of the agriculture projects including off-farm activities allow groups of farmers and/or individual farmers to apply for a common subproject or to benefit jointly from enterprise development activities.

### 6.2 Screening checklist (Determination of sub-project Category and Environmental, Social and Climate (E&S) Instrument Requirement)

The ES screening checklist of each subproject is intended for the use of CPCUs, NDUs and Island Councils to determine E&S documentation required to ensure that the potential environmental, social and climate risks and impacts of sub-project are managed and monitored consistent with the ESMF for the Project. The CPCU is encouraged to send the checklist to IFAD to ensure that IFAD agrees with the results of the screening prior to the Client's hiring of consultants to prepare E&S documents.

After subprojects are determined to be eligible for financing, an environmental, social (E&S) screening checklist will be carried out. The purposes of the E&S screening are to: (i) identify the SECAP requirements, (ii) classifying level of impact from the sub-project activities; and (iii) determine the E&S instrument to be prepared for the sub-project.

SIFWaP is assessed as Environmental and Social Category B. According to IFAD's SECAP guidelines, Category B projects may have some adverse environmental and/or social impacts on human populations or environmentally significant areas, but the impacts: (i) are less adverse than those for category A; (ii) are site-specific and few are irreversible in nature; and (iii) can be readily remedied by appropriate preventive actions and/or mitigation measures.

The screening approach for the management of social and environmental risks recognises the limited technical, financial and institutional capacity to assess proposals, monitor results and where necessary, enforce regulations. Environmental policies, laws and regulations are generally well developed at national level but the capacity to implement these is particularly weak on outer islands where local government and Island Councils are responsible. This institutional framework may not be sufficient to mitigate potential negative impacts on natural and environmental resources and local people related elite capture or targeting of vulnerable people. SIFWaP will accommodate these weaknesses by ensuring that the community consultation approach, led by Island Councils and also Civil Society Organisations (CSOs) give due consideration to social and environmental risk minimisation and also seek to address growing concerns around gender-based violence, COVID-19 restrictions on social distancing and movement, together with financial hardship from reduced economic activity and remittance flows. For example, for activities related to improved value-added facilities such as cold storage facilities, vegetable and fruit packaging facilities, etc.

#### Step 2. Development of Mitigation Measures and Public Consultation

After an E&S screening is carried out and the subproject Category is identified, the subproject category B detailed environmental, social and climate impact assessment will be carried out. As the project activities are small scale in nature, the proposed sub-project activities will not fall under Category A risk classification. The purpose of the impact assessment is to identify from the level of the impact and determine the type of E&S instrument that needs to be prepared for the subproject (e.g. Environmental and Social Impact Assessment (ESIA, site-specific Environmental and Social Management Plan

(ESMP), Environmental Code of Practice (ECOPs) for Small Civil Works or Infrastructure Investments, etc.)

The E&S impact assessment will be used as an input to set scope of mitigation measures. The impact assessment will give the environment, climate and social issues due importance in the decision-making process by clearly evaluating the environmental, climate and social consequences of the proposed sub-project before action is taken. Early identification and characterization of critical environmental and social impacts allows the public and the government to form a view about the environmental, climate and social acceptability of a proposed development subproject and decide under what conditions should apply to mitigate or minimize the risks and impacts. The scope of the impact assessment will depend on the screening results. Data collection, field survey, and consultation with local communities, faith-based organizations, NGOs and CSOs will be carried out.

The key steps of environmental, climate and social risk and impact assessment are: planning, scoping, impact assessment and consultation. The impact assessment will clarify:

i. How will the sub-project activity give rise to an impact? For the case of climate risks and impacts, the impact assessment will clarify how will climate change adversely affect the sub-project?
ii. How likely is it that an impact will occur?
iii. What will be the consequence of each impact?
iv. What will be the spatial and temporal extent of each impact? The assessment of impacts largely depends on the extent and duration of change, the number of people or size of the resource affected and their sensitivity to the change.

### 5.3 IFAD Requirements

The scope of an Environmental and Social Assessment (ESA) for a Category B project may vary from subproject to subproject depending on the nature, scope and geographical location of the sub-projects, but it is narrower than that of Category A as it examines the project's potential negative and positive environmental impacts and recommends any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance.

### 5.4 Preparation of Environmental and Social Management Plan (ESMP) and Public Consultation

An ESMP describes the basic principles and activities to be carried out to mitigate potential negative impacts. ESMP will briefly describe the sub-project description; environmental and social background of the sub-project area, including a good map showing locations of the sub-project and site-specific activities and/or process as appropriate; the potential impacts and proposed mitigation measures; and the implementation and monitoring arrangement and budget. For each sub-project, the ESMP will clearly define actions to assess and mitigate associated risks as well as to mitigate potential impacts during site clearance and construction and to reduce the risks during operation. However, as explained previously, the majority of investments are small-scale with the exception of water supply options where ESMPs will be necessary.

### Step 3. Review, Approval, Public Consultation, and Disclosure of Sub-Project E&S Instruments

The NDUs together with the contractors will be responsible for the revision or updates of the subprojects. The site supervisor will be responsible for daily environmental inspections

of the construction site. The contractor will maintain and keep all administrative and environmental records which would include a log of complaints together with records of any measures taken to mitigate the cause of the complaints.

The Stakeholder Consultation Plan and guidelines are designed to ensure that the project contributes to sustainable development, that individuals and environment are not harmed by any project activity, and that if there are adverse impacts, they are identified, avoided, minimised and mitigated to the maximum possible extent. Essential to this process is the informed participation in consultations of all stakeholders, especially the potential beneficiaries and any affected persons. The Project's Component 1 will provide the platform for a meaningful consultation processes, which are planned to be open, accessible and inclusive so that all sectors of the community can contribute to project planning, participate in benefits.

The consultations will be led by each Country Project Steering Committee (CPSC) with support of selected NGOs and CSO. The consultations will occur first at the island level, aligned with the project's decentralized approach to community development plans. Following island consultations, the Island Officers will be responsible to provide documentation of the following:

- Manner in which notification of the consultation was announced: media used, dates, description or copy of the announcement.
- Date consultations were held.
- Location of consultation.
- Measures taken to ensure participation of vulnerable groups/women/ youth/people with disabilities.
- Materials presented at consultations, e.g. information bulletins, maps, plans, photographs .
- Who was invited and who attended: name, gender, organization or occupation, telephone/ e-mail /address (home and/or office).
- Meeting Program/Schedule.
- Summary Meeting Minutes (comments by gender, questions by gender and response by Presenters by gender).
- List of decisions reached, and any actions agreed upon with schedules and deadlines and responsibilities.
- How the project plan/ESMF or other documentation was amended to take into account the issues raised during the consultation.

Communication and consultation are essential throughout the identification, preparation, implementation, and management and monitoring of the Project. Given the isolated geographic settings, this will be challenging but the aim is to ensure that the general public and in particular those directly or indirectly affected are well informed and enjoy broad public understanding and acceptability. The steps to ensure this include:

i. Stakeholder identification (target beneficiaries, CSOs, NGOs, faith-based organizations etc.)

ii. Preparation of a strategy to keep stakeholders of all sectors of society informed, and to provide them with an effective feedback and complaints mechanism throughout the life of the Project;

iii. Assignment of responsibilities for execution of the communications plan, and

iv. Planning and implementation of the plan including regular reporting, monitoring and evaluation of the outputs and outcomes of communication as a normal part of the project reporting schedule.

### 5.5 Review and Approval of E&S Instruments

**Government/CPCU's Review and Approval.** If a subproject requires review and approval according to the national EIA laws and guidelines, the subproject owner (application of matching grants, recipients of IFAD financing, etc.) will prepare and submit E&S reports as required for review. For example, certain activities may involve an involuntary resettlement, which refers to management of adverse impacts of loss of, or damage to, land, assets or livelihoods, where the affected person has no choice. Land may be needed to install electricity generation, storage and communications infrastructure. This may occur on Government or private buildings, Government leased land or 'native' land. Assets such as tree crops may need to be trimmed or removed to allow access to sites/infrastructure. For this reason, the national EIA Agencies/Departments will review and approve the E&S reports, in accordance with the procedures and process of review and secure the approval by relevant government authorities before subproject appraisal.
It is expected that these consultations will also reveal that public understanding surrounding the "ownership" of groundwater, which varies from country to country, island to island and community to community, can be a sensitive subject given the common customary belief that people who own the land also own what lies beneath it, even if this position is not supported in state policy. As such, the project should ensure that all land access and use issues are addressed prior to any project intervention and allow sufficient time for consultation and permission processes to occur.

**IFAD's review and clearance.** IFAD E&S review and clearance of sub-projects are described below and are governed by the centrality of empowerment of poor rural people and the organizations that represent them.

### 5.6 Public Consultation

The project was developed in discussion with a wide range of stakeholders, including relevant Government departments, local national and international consultants, CSOs, NGOs, and potential implementing partners. Under the leadership of each Ministry representative, food/nutrition, water security and climate change related issues and solutions were identified, and they were presented for stakeholder discussions, inputs and endorsement.

Due to the Covid-19 pandemic, extensive on-ground consultation has not been undertaken with relevant stakeholders to be involved in the project along with community beneficiaries. The Stakeholder Engagement Plan (SEP) therefore still needs to be finalized based on the consultations undertaken with government counterparts. It is anticipated that based on the communities' needs and the feedback received to date the subprojects will fully take under consideration environmentally and socially sound and sustainable aspects, and that potentially most vulnerable people will have been properly consulted.
During consultations, a strong communication plan about matching grants since the beginning of Project implementation is key to ensure uptake, equal access to grants, accountability and to foster spillovers. For instance, showcasing matching grants beneficiaries on local television, radio and social media increases project ownership and decreases the risk of grant misuse.

The objectives of consultations are to generate public awareness of by providing information about a subproject to all stakeholders, particularly the subprojects affected persons (PAPs) in a timely manner and to provide opportunity to the stakeholders to voice their opinions and concerns on different aspects of the project. Consultation would help facilitate and streamline decision making whilst fostering an atmosphere of understanding

among individuals, groups and organizations, who could affect or be affected by the sub-projects.

Consultation is a continuous process which will initiate at community level in target Outer Islands. The Island Councils and public extension staff will assimilate all proposed suggestions of the stakeholders and would assist the NDUs and CPCU in taking appropriate decisions for effective environmental, social and climate risk management of the subprojects.

The Project adopts a community-based, demand driven approach and as such, it is aligned to help facilitate and streamline decision making whilst fostering an atmosphere of understanding among individuals, groups and organizations, who could affect or be affected by the subprojects.

The specific objectives of public consultation are:

a) To keep stakeholders informed about the subprojects at different stages of implementation. This will potentially be done via digital technologies (i.e. Facebook, WhatsApp group);

b) To address the environmental, social and climate risk concerns/impacts, and develop mitigation measures considering the opinion/ suggestions of the stakeholders;

c) To generate and document broad community support for the sub-projects;

d) To improve communications among interested parties; and

e) To establish formal complaint submittal/resolution mechanisms (Grievance Redress Mechanism).

At least 2 stages of consultation with the project affected people, project beneficiary and relevant stakeholders will need to be carried out. The first stage consultation for environmental and social impact assessment is required during the subproject E&S screening level. And second level consultation should be carried out once the impacts are clearly identified and draft management plans are prepared.

**Step 4. Implementation, Supervision, Monitoring, And Reporting**

### 5.7 Project Level

NDUs will take the lead in overseeing and monitoring of the implementation of subprojects and this unit will periodically supervise and monitor the SECAP implementation performance and include the progress/results in the Project Progress Report.

The CPCU will compile this information and report on (i) compliance with measures agreed with IFAD on the basis of the findings and results of the E&S assessment, including implementation of any ESMP, as set out in the project documents; (ii) the status/progress of mitigation measures; and (iii) the findings of monitoring programs.

To note, each country will have established a Country Project Steering Committee (CPSC), chaired by the Ministry of Finance and comprising representation from the lead implementing agency, other implementing partners, civil society and the private sector. For FSM, the CPSC will include representation from each of the four states.

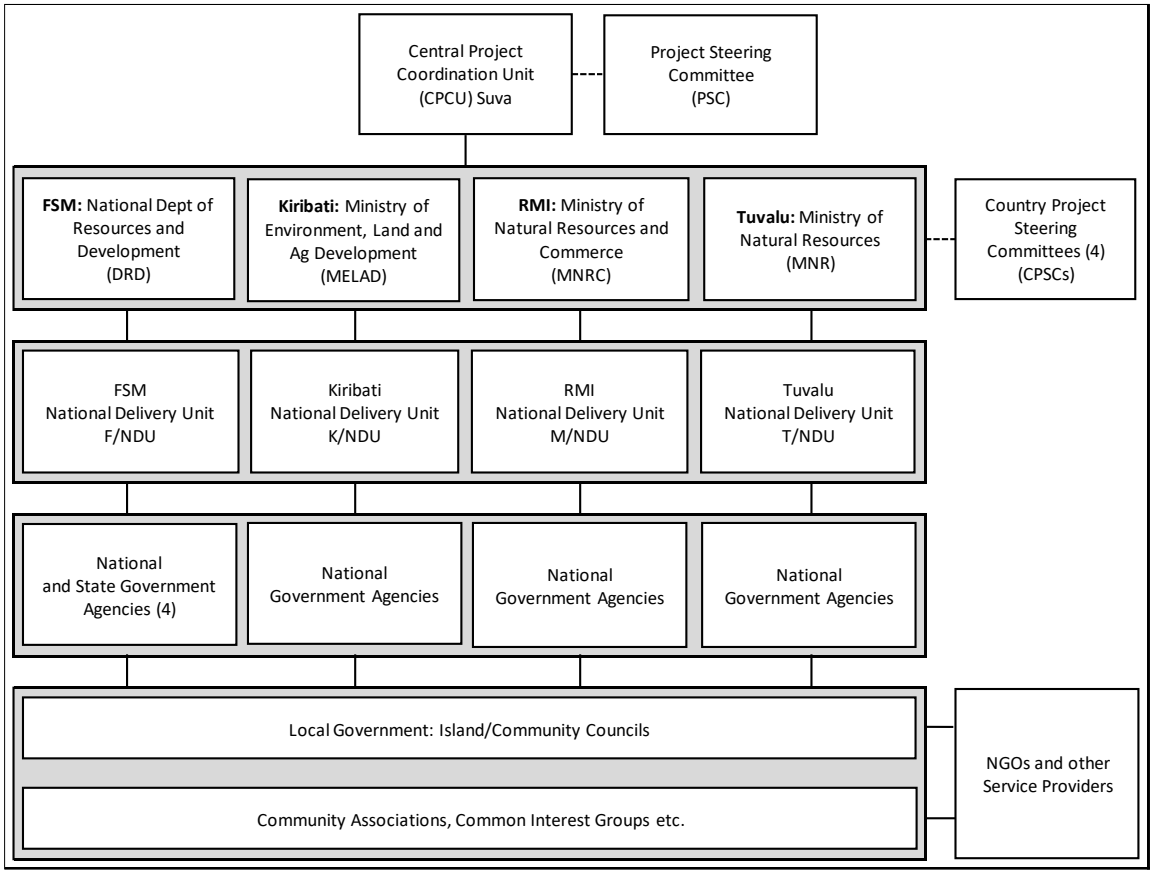
CPSC and the CPCU will be critical decision-making bodies, especially in relation to planning for times of water shortage, for example, providing necessary oversight on drought management plans, water plans for gardens and nurseries, plans for on-going maintenance of water catchment and storage systems, and agreed mechanisms and

procedures within communities for resolving conflicts over water which will inevitably arise.

In Kiribati, the KOIFAWP steering committee will assume oversight responsibilities for SIFWaP. The CPSCs will meet twice a year, more often if necessary.

The below organigram depicts the bottoms up approach for public consultation which starts with communities and Island Councils, to national government agencies, NDUs, Ministry representatives and the CPCU.

**General Management Structure and Responsibilities**




The CPCU/NDUs will hire an E&S specialist (senior staff with the requisite skills responsible for effective and timely implementation of E&S activities, and for managing and monitoring of environmental and social impacts of subprojects throughout the project period).

Main responsibilities of an E&S team will include, but will not be limited to, (i) enforcing compliance, including supervision and monitoring, of all environment and social aspects; (ii) representing the sub-project owner for all matters related to the project E&S aspects; and (iii) be responsible for overall coordination of sub-project ESMP implementation.

Information regarding the E&S measures and performance should be periodically disclosed to the public. Depending on the capacity of PMU, an Environmental and Social Management Consultant (EMC) may be hired to assist the E&S team in performing E&S related tasks.

## 5.8 Subproject Level

During project implementation, the subproject owner is responsible for ensuring effective implementation of mitigation measures (ESMPs, water quality monitoring, etc.) in close consultation with local authorities and local communities. The sub-project will be

responsible for incorporating ESMPs/ECOPs into bidding and contractual documents, if necessary. The results will be part of the sub-project progress report and the E&S focal point will be responsible for ensuring proper documentation of E&S activities.

## 7. Ineligible Activities/Exclusion List

The purpose of eligibility screening is to avoid adverse social, environmental and climate risks and impacts that cannot be adequately mitigated by project or that are prohibited by IFAD's SECAP requirements, or by international conventions. Ineligibility criteria, which vary from project to project, could include: (i) prohibition under the SECAP requirements, e.g., significant degradation or conversion of critical natural habitats, critical natural forests, etc.; (ii) contravention of the country obligations under relevant international environmental treaties, e.g. Montreal Protocol or Stockholm Convention; (iii) environment, social and climate risks and impacts soo complex and adverse that are beyond the capacity of the CPCU/NDUs to manage.

A sub-project that falls under one of the ineligibility criteria will not be eligible for project financing. Below is a preliminary list of non-eligible activities:

**Box 2: Proposed Exclusion List**

- Production or trade in any product or activity deemed illegal under National laws or regulations or international conventions and agreements, or subject to international bans, such as pharmaceuticals, pesticides/herbicides, ozone depleting substances, PCBs, wildlife or products regulated under CITES.
- Production or trade in weapons and munitions, alcoholic beverages (excluding beer and wine), kava and tobacco.
- Activities involving harmful or exploitative forms of forced labour/harmful child labour.
- Commercial logging operations in primary tropical forest and production or trade in wood or other forestry products other than from sustainably managed forests.
- Any activity which potentially compromises ownership of or access to customary land or otherwise threatens the traditional values or human rights of citizens and residents.
- Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals.

Source: IFC/World Bank Exclusion list modified to reflect specific customary and human rights issues in the participating countries and communities

## 8. Potential Impacts and Mitigation Measures

### 8.1 Potential Positive Impacts

a) Home gardening activities are not intensive and are aimed at building the poor coral soils that are typical of atoll environments. These practices will improve soil quality and contribute to healthier, more climate resilient, livelihoods. Adoption of technologies such as biogas digesters may further improve the soils through better recycling of 'waste resources' into high quality organic fertilizers.

b) Women are being fully engaged and the Project will ensure that there are no barriers to their participation in nutrition education. Health focus could be improved through educational resources for building knowledge and capacity of communities regarding the inter-linkages between effective management and use of all organic waste streams (including human waste through use of compost toilets), the value of creating healthy soil, growing healthy food crops, and human health.

### 8.2 Potential Negative Impacts

The SECAP Compliance review identified the following negative impacts and risk:

a) Impacts of agricultural intensification on habitats, ecosystems and/or livelihoods

b) Two areas of social risk: (a) Community health: communicable and non-communicable diseases (NCDs), including respiratory infections, diarrhoeal illness, and other water, food and vector-borne diseases; (b) Gender-Based Violence and Sexual Exploitation and Abuse.

c) Other key issues relate to water. Drought events do occur in most of the target countries and there will likely be conflict over water, particularly during times of shortage. Planning for times of shortage is required, including drought management plans, water plans for gardens and nurseries, plans for on-going maintenance of water catchment and storage systems, and agreed mechanisms and procedures within communities for resolving conflicts over water.

**Project Mitigation Measures**

| Activity | Significant Potential Risks and Impacts | Key Mitigation Measures | Roles and Responsibilities |
|---|---|---|---|
| Transport infrastructure: feeder roads | - Hazardous substances and improper waste management of construction materials.<br>- Noise and dust, and disruption to traditional / island lifestyles.<br>- Deposition of solid wastes.<br>- Health and safety of construction workers/artisans. | - Schedule proposed works to ensure that major vegetation disturbance and earthworks are carried out during periods of lower rainfall and wind speeds.<br>- Safe storage of hazardous materials.<br>- Reuse waste aggregates from roads or runway projects. Preference shall be given to materials that can reduce the direct and indirect waste generated.<br>- Constrain working hours and provide adequate warning of works.<br>- Avoid graves and physical cultural resources.<br>- Workshops with communities prior to construction.<br>- Implement effective dust management measures in all areas during design, construction and operation.<br>- Daily spraying/wetting of the access roads, sites material and stockpiles. | - CSPC with support of Island Councils and technical agencies. Monitoring to be done before awarding grant of the subproject |
| Wells, rainwater catchment | - Droughts, sea level rise and salinity intrusion.<br>- Communities in lower rainfall areas that rely heavily on groundwater will see their sources | - Hydrogeological studies to ensure freshwater lens availability throughout the year, and a study on aquifer recharge rates. | - SPC or other technical agency in collaboration with responsible |

| Activity | Significant Potential Risks and Impacts | Key Mitigation Measures | Roles and Responsibilities |
|---|---|---|---|
| | being depleted, with low likelihood that water harvesting will be able to cover the shortfall.<br>- Potential for groundwater occurrence particularly in small islands and atolls is very variable, and is a function of recharge, aquifer media, island size, and geographic location; with recharge and aquifer media being the more sensitive/critical parameters.<br>- Inability to obtain land or conflict over access.<br>- Poor installation/construction and construction impacts, including disposal of waste.<br>- Poor maintenance, inappropriate design, which reduces efficiency.<br>- Tanks become contaminated or breeding grounds for insects.<br>- Material supply non-sustainable. | - Planning for well-depths below the freshwater lens.<br>- Proper procedures for well-casing installation. To consider the method for extracting water – drilling, electromagnetic and radar methods<br>- Monitoring salinity levels.<br>- Erosion and sedimentation control plans.<br>- Planning new infrastructure at a suitable elevation above the current high tide level (utilizing accurate topographic survey);<br>- Ensuring new infrastructure is designed applying design standards consistent with the project climate risks and to withstand extreme weather events, such as sea water inundation;<br>- Hydrology studies – size of rainwater catchment area; amount of water that can be collected and types of activities that can be enabled through this extra water (livestock); or whether the water is only for potable drinking.<br>- Formation of water management committees to ensure community ownership, management and equitable access.<br>- Tanks and conveyance materials inert, roofs to be non-toxic, leaf diverters minimise solid contamination and screens prevent insect entry.<br>- Buffer zones for toilets introduced for septic tanks.<br>- During project implementation, groundwater quality should be assessed. Initial assessment should cover a wide range of parameters (e.g. depth to water, pH, conductivity, nitrates, phosphates, faecal coliforms, heavy metals, turbidity, hydrocarbons, radionuclides) to provide a baseline and to identify | Ministries of Water |

| Activity | Significant Potential Risks and Impacts | Key Mitigation Measures | Roles and Responsibilities |
|---|---|---|---|
| | | potential suitability for use. Subsequent monitoring parameters will be determined on need. | |
| Solar distillation | - Consider whether the investments justify the amount of water yield | - Design system to provide treated, safe water to reduce the requirement for consumers to boil water for treatment using green-house gas emitting heating sources. | - Technical Agencies and Responsible Ministries for Water and Infrastructure Development |
| Desalination plants | - Challenge of high costs and import dependency<br>- Limited skilled expertise for O&M<br>- Continuous access to a reliable source of energy<br>- Property rights relating to the desalination plants sites.<br>- Environmental risks on the marine and coastal ecology both during the construction and operating phases of the project.<br>- Loss or damage from ocean inundation | - Groundwater quality monitoring will be implemented,<br>- Effective implementation of site-specific erosion drainage and sediment control plans (EDSCPs).<br>- Select plant and equipment and specific design work practices to ensure that noise emissions are minimised during construction and operation including all pumping equipment.<br>- Machinery, equipment, and generators will be serviced regularly to reduce GHG emissions.<br>- Assessments on the state of groundwater sources, the water source's "carrying capacity", and their utilisation rates, would be important- beyond the assessment of rainfall, recharge and need.<br>- Assess options for solar PV to improve grid stability.<br>- Where relevant, UXO survey carried out prior to drilling tests.<br>- Technical studies to ensure that marine and coastal ecology are not damaged (assessments will include health of coral life and fish species, ocean acidification and water temperatures). | - Responsible Ministries for Water and Infrastructure Development |
| Composting facilities and equipment (including shredders), cold storage, nurseries / | - Natural climate variability and climate change higher than the normal average temperatures<br>- Migration and labour shortages | - Selection criteria for various schemes to include financial/in-kind contribution as a way to gauge interest and ensure ownership and sustainability.<br>- Locating construction plant and equipment inland away from | - FSM: National Department of Resources and Development (NDRD)<br>- Kiribati: Ministry of |

| Activity | Significant Potential Risks and Impacts | Key Mitigation Measures | Roles and Responsibilities |
|---|---|---|---|
| seed production inputs and equipment etc. | | the shoreline is required to minimise risk of flooding.<br>- Composting pits constructed above ground and properly raised to ensure the material does not leech in the ground | Environment, Land and Agriculture Development (MELAD)<br>- RMI: Ministry of Natural Resources and Commerce (MNRC)<br>- Tuvalu: Ministry of Natural Resources (MNR) |
| Pest and invasive species management | - Invasive species may lead to changes in ecological services that are locally important by disturbing the operation of the hydrological cycle including water supply, waste assimilation, recycling of nutrients, conservation and regeneration of soils, pollination of crops, seed dispersal etc. | - Listing of species as an effective tool for dealing with pest and invasive species management<br>- Biosecurity measures / quarantine<br>- Cut flora which are a direct obstacle to project infrastructure works, no mangroves will be removed.<br>- All vessels carrying equipment and materials for the project will be subject to inspection by agriculture quarantine inspectors. | - FSM: National Department of Resources and Development (NDRD)<br>- Kiribati: Ministry of Environment, Land and Agriculture Development (MELAD)<br>- RMI: Ministry of Natural Resources and Commerce (MNRC)<br>- Tuvalu: Ministry of Natural Resources (MNR) |
| Solar street lights, solar mini/micro-grids, solar Wi-Fi___33 access points | - Improper disposal of equipment and batteries contain high levels of mercury.<br>- Increase in import dependency of materials i.e. solar panels, wiring, charge controllers, inverters etc. | - Selection and location of equipment which provides benefits at community-level (i.e. located in Island Councils).<br>- Consider disposal of equipment in supply contract.<br>- Protective locks, fences, signage etc. and education of building occupiers.<br>- Require recycling or disposal of equipment. | - Technical Agency in Solar Energy Industry |
| Small livestock and equipment | - Proper design of livestock sheds and management of animals. | - Animal manure waste management (i.e. through adoption of small-scale biogas digesters for recycling the | - Ministries of Agriculture and Livestock and Island Councils |

| Activity | Significant Potential Risks and Impacts | Key Mitigation Measures | Roles and Responsibilities |
|---|---|---|---|
| | - Lack of feed or timely availability of feed due to import dependency.<br>- Water availability for livestock.<br>- Water and soil pollution from manure<br>- Predominance of extensive models where animals are tethered or roaming free. | manure and turning it into a high-nutrient quality organic fertilizer).<br>- Additionally, the methane from animal manure can be captured and used as biogas, a clean source of cooking fuel. | |
| Fishing, aquaculture, seaweed and equipment | - Elite capture; fishing licences<br>- Creating an environment for CSOs (inclusive of FBOs) to assist with diffusion of socially inclusive CBFM. | - Separate waste streams maintained at all times i.e. general domestic waste, construction and contaminated waste.<br>- Fish waste to be used as local compost. | - Ministries of Agriculture and Fisheries and Island Councils |
| Home gardens, hydroponics | - Import dependency towards food staples such as sugar, rice and flour.<br>- Limited options for reducing greywater contamination & its use for food production in atoll conditions. | - Selection of climate resilient crop varieties (drought / flood resistant).<br>- Assess grey-water use/consumption and amount available.<br>- Assess / model the transport/flow and destination of greywater. | - Ministries of Agriculture and Island Councils |
| Tree crop replanting: coconuts, breadfruit, bananas | - The cutting and clearing of trees and other vegetation can have an impact on threatened species.<br>- Land tenure / permits / acquisition.<br>- Land use / site selection.<br>- Safety equipment for felling senile trees. | - Participatory approaches to site selection. Prioritise government land in the first phase.<br>- Mangrove buffer zones and education on the importance of tree crops and the associated ecological services.<br>- Prohibition of burning vegetation and residual bushes and grasses when clearing planting sites. | - Ministries of Agriculture and Island Councils |
| Storage facilities: cold-stores, freezers | - Safety during operation and limited demand due to low population density.<br>- High transportation and logistics costs. | - Consider electricity requirements for cold storage and available energy sources for continuous supply. | - |
| Postharvest processing, Virgin Coconut Oil production, Cocosap | - High copra subsidies (AUD4/kg)<br>- High transport and logistics costs. | - Revolving (rotary) fund established to attract households and communities to venture into other coconut value chain products.<br>- Landscape level assessment of high-value coconut tress | - Ministries of Agriculture and Island Councils |

| Activity | Significant Potential Risks and Impacts | Key Mitigation Measures | Roles and Responsibilities |
|---|---|---|---|
| Sugar/Syrup plants | - Increased number of senile trees which require felling.<br>- Effluent generated as secondary products from the processing plants which eventually can seep into nearby water bodies, causing water pollution | - Complementary activities supporting planting of coconut trees (both dwarf and tall varieties).<br>- Health and safety measures for workers (i.e. chainsaws for felling senile trees).<br>- Safe handling and disposal of chemicals, etc. | |

## 9. Grievance Redress Mechanism

During the construction and implementation phases of the Project, a person or group of people can be adversely affected, directly or indirectly due to the project activities. The grievances that may arise can be related to social issues such as eligibility criteria or disruption of services, temporary or permanent loss of livelihoods and other social and cultural issues. Grievances may also be related to environmental issues such as excessive dust generation, damages to infrastructure due to construction related vibrations or transportation of raw material, noise, decrease in quality or quantity of private/ public surface/ ground water resources, damage to home gardens etc.

The project allows those that have a compliant or that feel aggrieved by the project to be able to communicate their concerns and/or grievances through an appropriate process. The Grievance Redress Mechanism set out in this ESMF are to be used as part of the project and will provide an accessible, rapid, fair and effective response to concerned stakeholders.

Project Affected People should go to express their grievances and concerns about the project to the Island Councils and Mayors, including a clearly elaborated explanation indicating the reasons for concern. More specifically this process is intended to:

a) Be a legitimate process that allows for trust building between stakeholder groups and assures stakeholders that their concerns will be assessed in a fair and transparent manner;

b) Mechanism for all stakeholders to provide adequate assistance for those that may have faced barriers in the past to be able to raise their concerns;

c) Process, and provide clarity on the types of outcomes available to individuals and groups;

d) Ensure equitable treatment to all concerned and aggrieved individuals and groups through a consistent, formal approach that, is fair, informed and respectful to a complaint and/or concern;

e) Provide a transparent approach, by keeping any aggrieved individual/group informed of the progress of their complaint, the information that was used when assessing their complaint.

During all stakeholder engagement activities, there will be a statement announcing that there is a Grievance Redress Mechanism where stakeholders can raise complaints and have them processed. The Designated Contact Person (DCP) at Outer Island level will provide contact information during all activities, and provide a location where stakeholders can log their complaints. There will also be a notice at the Atoll Council offices and in the

NDU offices and a notice on the website at all times explaining the complaints procedure and providing the contact details.

## 10. Institutional Arrangements and Responsibilities

The project will be managed through a decentralised implementation framework that delegates ownership and responsibilities first to the country/federal level, and then to the state/island and community levels, with the active involvement of existing national and sub-national institutions such as Island Councils. At beneficiary level, community engagement and institution-building will ensure ownership of activities and investments. The CPCU will be operated by a suitably qualified project management company/institution selected by international competitive bidding and will provide project management technical assistance to the NDUs. It is envisaged that IFAD mobilise the CPCU firm directly on behalf of the recipient countries and ensure that a climate change and environment specialist is recruited within the unit acting as a liaison and a supporting technical expert for the NDUs.

The Island Councils will be responsible for all project activities on the respective island. In particular, the E&S screening will occur first at the Island Council level with final review provided by the CPCU in Suva (Fiji); but with decision making responsibilities decentralised to the four NDUs. They will be led by the Island Facilitators and include a number of CFOs depending on the number of participating communities.

In addition to the lead implementing agency, a number of other government agencies will be engaged in project implementation under MOUs with the lead agency. These will vary between countries (and for FSM between States) but may include the departments or ministries with responsibility for: water and sanitation, health and nutrition, infrastructure and public works, agriculture, fisheries, forestry, livestock, handicrafts, education, women and youth affairs, environment/natural resource management, commerce, etc. These agencies will be engaged as required to support the implementation of project activities in accordance with their mandates. Partnerships with other ministries and agencies will be defined in the CDPs, which will be completed in Year 2 or 3 of the project, thus allowing sufficient time for the preparation of MoUs without delaying project implementation. In fact, template MoUs can be drafted as part of the project preparation.

With regards to E&S screening, contractors together with sub-national implementing agencies will have an important role in the implementation of water supply systems and other public good type investments under Sub-component 1.2. Environmentally responsible procurement shall be guaranteed through proper planning of activities during pre-construction and design phase, ensuring environmental management plans and necessary environmental personnel are included in the design and bidding phase documents, as well as contractors' documents.

## 11. Capacity Building Requirements

Training will be a cornerstone for the extension staff to ensure there is enough skilled expertise to carry out the E&S planning and implementation. Familiarisation visit to Kiribati and FSM to learn from community engagement experience and capacity building for community committees will be key. In addition, preparation of training materials in local language and training for selected households to demonstrate good food/nutrition and water/health/sanitation practices will be a dynamic process which will ensure continuous capacity building of project staff.

## 12. ESMF Implementation Budget

The cost estimate for the implementation of activities proposed in this ESMF is US$ 18,000. This covers costs for preparation of safeguards documentation, hiring of dedicated staff to

oversee environmental, social and climate-related aspects of SIFWaP activities, capacity building, project compliance monitoring, annual audits, technical assistance and annual reviews.

This cost estimate could increase dependent on the number of consultations required for the ESAs/ESIAs of each subproject but also, with regards to the transport, logistics and administration costs of E&S screening.

## 13. ESMF Consultation and Disclosure

IFAD's Policy on the Disclosure of Documents requires full disclosure to the public, and includes information notes on projects being developed for Board presentation, agreements for approved loans and grants, and project/programme design documents which include ESIAs and ESMFs. This ESMF will therefore be disclosed on IFAD's official website (http://www.ifad.org).

In addition, although disclosure of ESMFs are not necessarily provided for under each of the four target countries, the environmental frameworks cited in section three support disclosure of this ESMF on their respective websites, and also at Island-level, so that all interested stakeholders are able to access the document.

## Annex I: Guiding questions for environment, social and climate risk screening on water supply investment options

This list of questions can be used at different stages of project implementation and should be used in conjunction with the respective guidance statements.

The checklists for environmental and social and climate risks will:

1. Initially be filled during the community consultation process to help guide in the identification of opportunities and possible risks that will need to be considered in water supply investment options;
2. Attached to the ESMF; and
3. Reviewed by the Island Councils, NDUs and CPCU and updated as required.

In completing the checklist both short- and long-term impacts should be considered.

| Guiding questions | Yes/No | Comments/explanation |
|---|---|---|
| **Climate and Environmental Screening for Water Supply Options** | | |
| **Project location** | | |
| 1. Is the project area subject to extreme climatic events such as flooding, drought, tropical storms or heat waves? | | |
| 2. Do climate scenarios for the project area foresee changes in temperature, rainfall or extreme weather? | | |
| 3. Is the location affected by rainfall variability? | | |
| 4. Does the proposed project intervention area include ecologically sensitive areas,51 areas of global/national significance for biodiversity conservation and/or biodiversity-rich areas and habitats depended on by endangered species? | | |
| 5. Is the project location subjected to major destruction as a result of geophysical hazards (tsunamis, storms, volcanic eruptions)? | | |
| 6. Is the project located in areas where rural development projects have experienced significant weather-related losses and damages in the past? | | |
| **Natural resources** | | |
| 7. Has a hydrology study been conducted to ensure that the proposed intervention does not exceed the carrying capacity? For example, is their development happening in areas where little up-to-date information exists on average annual rainfall / groundwater aquifer recharge rates? | | |
| 8. Would the intervention result in significant use of agrochemicals which may lead to life-threatening illness and long-term public health and safety concerns? | | |
| 9. Does the project rely on water-based (ground and/or surface) development where there is reason to believe that significant | | |

[51] "Sensitive areas" include: protected areas (national parks, wildlife/nature reserves, biosphere reserves) and their buffer zones; areas of global significance for biodiversity conservation; habitats depended on by endangered species; natural forests; wetlands; coastal ecosystems, including coral reefs and mangrove swamps; small island ecosystems; areas most vulnerable to climate change and variability; lands highly susceptible to landslides, erosion and other forms of land degradation and areas that include physical cultural resources (of historical, religious, archaeological or other cultural significance) and areas with high social vulnerability.

| Guiding questions | Yes/No | Comments/explanation |
|---|---|---|
| depletion and/or reduced flow has occurred from the effects of climate change or from overutilization? | | |
| 10. Does the project make use of wastewater (e.g. industrial, sewage effluent)? | | |
| 11. Does the project ensure minimal impact on the seawater environment (near-field and far-field) | | |
| 12. Is the land to be used currently under long term government lease or has clear property rights arrangements? | | |
| **Infrastructure development** | | |
| 13. Does the project include the construction/rehabilitation/upgrade of desalination systems | | |
| 14. Does the project include small- medium scale irrigation systems | | |
| 15. Would the project make investments in low-lying coastal areas/zones exposed to tropical storms? | | |
| 16. Is the project investing in infrastructure that is exposed to infrequent extreme weather events? | | |
| 17. Has the project conducted drilling tests and water quality analyses in the specific location? | | |
| **Social** | | |
| 18. Would the project result in economic displacement52 or physical resettlement of more than 20 people, or impacting more than 10 per cent of an individual household's assets? | | |
| 19. Would the project result in conversion and/or loss of physical cultural resources? | | |
| 20. Would the project generate significant social adverse impacts to local communities (including disadvantaged and vulnerable groups and indigenous people) or other project-affected parties? | | |
| 21. Does the project have the potential to become more resilient through the adoption of green technologies at a reasonable cost? | | |
| **Natural resource management** | | |
| 22. Do the project activities include water demand assessments for household and livestock needs? | | |
| 23. Is the project target group entirely dependent on natural resources (such as seasonal crops, rainfed agricultural plots, migratory fish stocks) that have been | | |

52 Economic displacement implies the loss of land, assets, access to assets, income sources or means of livelihoods.

| Guiding questions | Yes/No | Comments/explanation |
|---|---|---|
| affected by in the last decade by climate trends or specific climatic events? | | |
| 24. Does the project involve fisheries where there is information on stocks, fishing effort and sustainable yield? Is there any risk of overfishing, habitat damage and knowledge of fishing zones and seasons? | | |
| 25. Would the project activities include aquaculture and/or agriculture in newly introduced or intensively practiced areas? | | |
| 26. Do the project activities include natural resources-based value chain development? | | |
| 27. Do the project activities include watershed management or rehabilitation? | | |
| 28. Does the project include import and transport of hazardous and toxic materials which may affect the environment? | | |

**Annex II: Screening Form for Sub-projects**

| SCREENING FORM |
|---|

**NAME OF PROJECT:**

**Application No:**

**Subproject Name:**

**Subproject Location:**

**Community Representative and Address:**

**Extension Team Representative and Address:**

**Site Selection:**

When considering the location of a subproject, rate the sensitivity of the proposed site in the following table according to the given criteria. Higher ratings do not necessarily mean that a site is unsuitable. They do indicate a real risk of causing undesirable adverse environmental and social effects, and that more substantial environmental and/or social planning may be required to adequately avoid, mitigate or manage potential effects.

| Issues | Site Sensitivity | | | Rating |
|---|---|---|---|---|
| | Low | Medium | High | |
| Natural habitats | No natural habitats present of any kind | No critical natural habitats; other natural habitats occur | Critical natural habitats present | |
| Water quality and water resource availability and use | Water flows exceed any existing demand; low intensity of water use; potential water use conflicts expected to be low; no potential water quality issues | Medium intensity of water use; multiple water users; water quality issues are important | Intensive water use; multiple water users; potential for conflicts is high; water quality issues are important | |
| Natural hazards vulnerability, floods, soil stability/ erosion | Flat terrain; no potential stability/erosion problems; no known volcanic/seismic/ flood risks | Medium slopes; some erosion potential; medium risks from volcanic/seismic/ flood/ hurricanes | Mountainous terrain; steep slopes; unstable soils; high erosion potential; volcanic, seismic or flood risks | |
| **Cultural property** | No known or suspected cultural heritage sites | Suspected cultural heritage sites; known heritage sites in broader area of influence | Known heritage sites in project area | |
| **Involuntary resettlement** | Low population density; dispersed population; legal tenure is well-defined; well-defined water rights | Medium population density; mixed ownership and land tenure; well-defined water rights | High population density; major towns and villages; low-income families and/or illegal ownership of land; communal properties; unclear water rights | |
| **Indigenous peoples** | No indigenous population | Dispersed and mixed indigenous populations; highly acculturated indigenous populations | Indigenous territories, reserves and/or lands; vulnerable indigenous populations | |

**Completeness of Subproject Application:**

Does the subproject application document contain, as appropriate, the following information?

| | Yes | No | N/A |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Description of the proposed project and where it is located | | | |
| Reasons for proposing the project | | | |
| The estimated cost of construction and operation | | | |
| Information about how the site was chosen, and what alternatives were considered | | | |
| A map or drawing showing the location and boundary of the project including any land required temporarily during construction | | | |
| The plan for any physical works (e.g. layout, buildings, other structures, construction materials) | | | |
| Any new access arrangements or changes to existing road layouts | | | |
| Any land that needs to be acquired, as well as who owns it, lives on it or has rights to use it | | | |
| A work program for construction, operation and decommissioning the physical works, as well as any site restoration needed afterwards | | | |
| Construction methods | | | |
| Resources used in construction and operation (e.g. materials, water, energy) | | | |
| Information about measures included in the subproject plan to avoid or minimize adverse environmental and social impacts | | | |
| Details of any permits required for the project | | | |

**Environmental and Social Checklist**

| | | Yes | No | ESMF Guidance |
|---|---|---|---|---|
| **A** | **Type of activity – Will the subproject:** | | | |
| 1 | Support animal husbandry or processing? | | | C14.1 |
| 2 | Involve the construction or rehabilitation of any small dams, weirs or reservoirs? | | | C14.2 |
| 3 | Support irrigation schemes? | | | C14.3 |
| 4 | Support rural water supply and sanitation schemes? | | | C14.4 |
| 5 | Build or rehabilitate any rural roads? | | | C14.5 |
| 6 | Involve solid waste management? | | | C14.6 |
| 7 | Involve community forestry? | | | C14.7 |
| 8 | Involve small-scale aquaculture? | | | C14.8 |
| 9 | Involve leather processing? | | | C14.9 |
| 10 | Involve food processing? | | | C14.10 |
| 11 | Involve community healthcare facilities and the management of healthcare waste? | | | C14.11 |
| 12 | Build or rehabilitate any structures or buildings? | | | C14.12 |
| 13 | Support agricultural activities? | | | C14.13 |
| 14 | Be located in or near an area where there is an important historical, archaeological or cultural heritage site? | | | B5.3 |
| 15 | Be located within or adjacent to any areas that are or may be protected by government (e.g. national park, national reserve, world heritage site) or local tradition, or that might be a natural habitat? | | | B5.4 |
| 16 | Depend on water supply from an existing dam, weir, or other water diversion structure? | | | B8 |
| | *If the answer to any of questions 1-16 is "Yes", please use the indicated Resource Sheets or sections(s) of the ESMF for guidance on how to avoid or minimize typical impacts and risks* | | | |
| **B** | **Environment – Will the subproject:** | | | |
| 17 | Risk causing the contamination of drinking water? | | | |
| 18 | Cause poor water drainage and increase the risk of water-related diseases such as malaria or bilharzia? | | | |
| 19 | Harvest or exploit a significant amount of natural resources such as trees, fuel wood or water? | | | |
| 20 | Be located within or nearby environmentally sensitive areas (e.g. intact natural forests, mangroves, wetlands) or threatened species? | | | |
| 21 | Create a risk of increased soil degradation or erosion? | | | |
| 22 | Create a risk of increasing soil salinity? | | | |
| 23 | Produce, or increase the production of, solid or liquid wastes (e.g. water, medical, and domestic or construction wastes)? | | | |

| | | Yes | No | ESMF Guidance |
|---|---|---|---|---|
| 24 | Affect the quantity or quality of surface waters (e.g. rivers, streams, wetlands), or groundwater (e.g. wells)? | | | |
| 25 | Result in the production of solid or liquid waste, or result in an increase in waste production, during construction or operation? | | | |
| | *If the answer to any of questions 17-25 is "Yes", please include an Environmental Management Plan (EMP) with the subproject application.* | | | B5.1, C8 |
| **C** | **Land acquisition and access to resources – Will the subproject:** | | | |
| 26 | Require that land (public or private) be acquired (temporarily or permanently) for its development? | | | |
| 27 | Use land that is currently occupied or regularly used for productive purposes (e.g. gardening, farming, pasture, fishing locations, forests) | | | |
| 28 | Displace individuals, families or businesses? | | | |
| 29 | Result in the temporary or permanent loss of crops, fruit trees or household infrastructure such as granaries, outside toilets and kitchens? | | | |
| 30 | Result in the involuntary restriction of access by people to legally designated parks and protected areas? | | | B6.4 |
| | *It the answer to any of the questions 26-29 is "Yes", please consult the ESMF and, if needed, prepare a Resettlement Action Plan (RAP)* | | | B6.2, B6.3, C10 |
| **D** | **Indigenous people – Are there:** | | | |
| 31 | Any indigenous groups living within the boundaries of, or nearby, the project? | | | |
| 32 | Members of these indigenous groups in the area who could benefit from the project? | | | |
| | *If the answer to questions 31 or 32 is "Yes", please consult the ESMF and, if needed, prepare an Indigenous Peoples (IPP).* | | | B7, C11 |
| **E** | **Pesticides and agricultural chemicals – Will the subproject:** | | | |
| 33 | Involve the use of pesticides or other agricultural chemicals, or increase existing use? | | | |
| | *If the answer to question 33 is "Yes", please consult the ESMF and, if needed, prepare a Pest Management Plan (PMP).* | | | B5.2, C9 |
| **F** | **Dam safety – Will the subproject:** | | | |
| 34 | Involve the construction of a dam or weir? | | | |
| 35 | Depend on water supplied from an existing dam or weir? | | | |
| | *If the answer to question 34 or 35 is "Yes", please consult the ESMF and, if needed, prepare a Dam Safety Report (DSR).* | | | B8, C12 |

**CERTIFICATION**

We certify that we have thoroughly examined all the potential adverse effects of this subproject. To the best of our knowledge, the subproject plan as described in the application and associated planning reports (e.g. EMP, RAP, IPP, PMP), if any, will be adequate to avoid or minimize all adverse environmental and social impacts.

**Community representative (signature):** ……

**Extension team representative (signature):** ……

**Date:** ……

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**Desk Appraisal by Review Authority:**

☐ **The subproject can be considered for approval.** The application is complete, all significant environmental and social issues are resolved, and no further subproject planning is required.

☐ **A field appraisal is required.**

***Note:*** A field appraisal must be carried out if the subproject:

- Needs to acquire land, or an individual or community's access to land or available resources is restricted or lost, or any individual or family is displaced.
- May restrict the use of resources in a park or protected area by people living inside or outside of it.
- May affect a protected area or a critical natural habitat.
- May encroach onto an important natural habitat, or have an impact on ecologically sensitive ecosystems (e.g. rivers, streams, wetlands).
- May adversely affect or benefit an indigenous people.
- Involves or introduces the use of pesticides.
- Involves, or results in: a) diversion or use of surface waters; b) construction or rehabilitation of latrines, septic or sewage systems; c) production of waste (e.g. slaughterhouse waste, medical waste); d) new or rebuilt irrigation or drainage systems; or e) small dams, weirs, reservoirs or water points.

The following issues need to be clarified at the subproject site:

……
……
……

A Field Appraisal report will be completed and added to the subproject file.

Name of desk appraisal officer (print):

Signature: Date:

**Annex 6: First Annual Work Plan and Budget**

**AS ATTACHMENT**

**Annex 7: Procurement Plan for First 18 Months**

**AS ATTACHMENT**

**Annex 8: Project Implementation Manual**

**AS ATTACHMENT**

**Annex 9: Integrated Project Risk Matrix**

| Risk Categories and Subcategories | Inherent | Residual |
|---|---|---|
| **Country Context** | | |
| **Political Commitment** | **Moderate** | **Low** |
| **Risk(s):**<br>• Turnover in civil servant positions and changes in Governments may reduce the level of country ownership of the project | | |
| **Mitigations:**<br>• SIFWaP was designed in full consultation with Government counterparts and line Ministries in order to ensure full ownership of the project.<br>• The Ministries/Departments of Agriculture are very enthusiastic and engaged in the design process as they are not often recipients of ODA and are keen to make the best of this funding opportunity. | | |
| **Governance** | **Moderate** | **Low** |
| **Risk(s):**<br>• All four countries are stable democracies. However, their small size and limited resources mean that governance capacity is lower than in the larger Pacific Island Countries.<br>• Very low governance and administrative capacity in outer island communities.<br>• Decision-making can be subject to pressure from personal and family connections in small communities.<br>• The compact of free association between USA and FSM/RMI is due to expire in 2023 which could accentuate governance and budgetary challenges. | | |
| **Mitigations:**<br>• Capacity building will be supported in every Component and Sub-Component and at all levels – national and sub-national levels of Government and within community organisations.<br>• Transparent criteria will be employed in the selection of participating communities and approval of matching grant applications.<br>• Participatory and inclusive priority setting processes will be utilised, culminating in shared community development plans and selectivity processes. | | |
| **Macroeconomic** | **Moderate** | **Moderate** |
| **Risk(s):**<br>• The narrow economic base of all four countries with heavy dependence on income from fishing licences and remittances exposes them to external shocks on the economy.<br>• The COVID-19 pandemic has exposed a number of macroeconomic vulnerabilities resulting in a deep and likely prolonged economic recession. | | |
| **Mitigations:**<br>• Investment in food production and income-generating activities in Component 2 will contribute to economic diversification and reduce dependence on imported food.<br>• There is an opportunity to engage in COVID-19 emergency relief programmes and post-crisis recovery programmes on offer from Development Partners. | | |
| **Fragility and security** | **High** | **Substantial** |
| **Risk(s):** | | |

- All four countries are classified as fragile states but are not exposed to significant security threats.
- Causes of fragility include: smallness and remoteness of Islands, vulnerability to climate change and natural disasters; fragile ecosystems; food and nutrition insecurity; poor health; high levels of emigration; limited revenue sources; narrow economic base; and transport and logistic challenges.

**Mitigations:**
- SIFWaP addresses the underlying causes of fragility principally food and water insecurity and climate change adaptation measures.
- South-South Cooperation and cross-learning to address common causes of fragility.
- Application of capacity building to communities coupled with strengthened community-based planning processes will help improve collective action and the formulation tailor made solutions appropriate to local conditions.

| **Sector Strategies and Policies** | | |
|---|---|---|
| **Policy alignment** | **Moderate** | **Low** |

**Risk(s):**
- Project formulation involved detailed studies and consultations around the policy framework in each country including national and sectoral policies. The Project design is therefore consistent with the policy settings in each country.
- However, there may be some policy issues in key areas such as agriculture, natural resource management and health, which need to be clarified during Project implementation in order to strengthen alignment.

**Mitigations:**
- Component 3 will focus on strengthening the enabling policy framework for addressing food, nutrition and water security, including preparation of National Agricultural Investment Plans (NAIPs).
- The Project will facilitate multi-stakeholder platforms to oversee the preparation and/or review of sector strategies and policies, and to ensure SIFWaP's alignment with these.

| **Policy development and implementation** | **Moderate** | **Moderate** |
|---|---|---|

**Risk(s):**
- National capacity for policy development and implementation is limited and heavily reliant on support from Development Partners.

**Mitigations:**
- Capacity building support will be embedded in all Components and Sub-Components.
- Component 3 will support multi-stakeholder platforms for formulating policies in the key areas of food, nutrition and water security.
- FAO will provide technical assistance to review, refine and update policies and strategies including preparation of the NAIPs.

| **Environment and Climate Context** | | |
|---|---|---|
| **Project vulnerability to environmental conditions** | **High** | **Substantial** |

**Risk(s):**
- The natural (terrestrial and marine) ecosystems of the four countries are fragile and subject to high population pressure.

- The beneficiary communities are vulnerable to natural disasters including droughts and salinity have limited capacity to recover from such events.

**Mitigations:**
- The SECAP Review Note (Annex 5) identifies the key environmental vulnerabilities and mitigation options including an Environmental and Social Management Framework (EMSF) for screening proposed interventions and preparing management and mitigation measures.

| **Project vulnerability to climate change impacts** | **High** | **High** |
|---|---|---|

**Risk(s):**
- SIFWaP is assessed as having high climate risk, based on both observed trends and climate forecasting models.
- Key vulnerabilities include rising sea levels and increasing temperatures which will place pressure on agricultural productivity and fresh water supplies.

**Mitigations:**
- The SECAP Review Note specifies that a detailed climate risk assessment is required for participating island and community.
- The assessments will aim to: (i) improve the robustness of investments affected by climate-related hazards; (ii) increase the resilience of development outcomes; and (iii) avoid interventions which inadvertently increase vulnerability to climate hazards over the longer-term
- Climate adaptation/resilience measures are incorporated every Component and Sub-component of the Project as detailed in Section 5.2 of the SECAP note.

**Project Scope**

| **Project relevance** | **Low** | **Low** |
|---|---|---|

**Risk(s):**
- Project design is based on a detailed analysis of the national and sectoral context in each country, and the experiences of IFAD, other Development Partners and regional organisations.
- Consultations with Governments and other stakeholders were undertaken during formulation of the GAFSP application/concept note in 2019 in order to ensure the relevance and practicality of the design.

**Mitigations:**
- No mitigation required other than continuous review of relevance by Supervision Missions and national authorities according to changing circumstances and lessons learned during implementation.
- The MTR will re-assess the relevance of the Project and make adjustments if needed.

| **Technical soundness** | **Moderate** | **Low** |
|---|---|---|

**Risk(s):**
- Beneficiaries will be able to select technical solutions to their identified problems from a menu of options which includes agricultural and hydrological interventions as well as infrastructure investments.
- The capacity of outer island communities to implement even moderately complex technical options is considered low, and remediation of technical breakdowns/faults is difficult and often protracted.

**Mitigations:**

- Personnel from the relevant technical agencies (agriculture, water supply, public works etc.) will be engaged to appraise the proposed technologies to be employed in terms of their feasibility and applicability under local conditions.
- Only technologies that have proven successful in remote island situations will be employed.
- Local people will be trained in operation and maintenance of equipment such as water supply systems.

**Institutional Capacity for Implementation and Sustainability**

| **Implementation arrangements** | **Substantial** | **Moderate** |
|---|---|---|

**Risk(s):**
- The participation of four fragile small-island states in a multi-country programme creates major implementation challenges.
- Only one of the four countries (Kiribati) has significant recent experience in implementing internationally financed investment projects.
- Extreme isolation and vast distances between countries and islands creates many logistical challenges which are time consuming and expensive to address.

**Mitigations:**
- Hub-and-spoke management structure with implementation support provided by a Central Project Coordination Unit (CPCU); but with decision making responsibilities decentralised to the four National Delivery Units (NDUs).
- Preparation of a detailed PIM modelled on the KOIFAWP PIM (see outline in Annex 8).
- Intensive supervision and implementation support during the start-up period.

| **M&E arrangements** | **Substantial** | **Moderate** |
|---|---|---|

**Risk(s):**
- Major M&E challenges associated with implementation of project activities in scattered/remote islands with erratic transport and poor communications.
- Very limited availability of personnel with M&E skills/experience.
- Poor track record of M&E in the Pacific Islands generally.

**Mitigations:**
- Design of a very simple M&E system that is within the capacity of the implementing agencies to operate.
- Provision of technical support, training and capacity building in M&E at national and sub-national levels.

**Procurement**

| **Legal and regulatory framework** | **Low** | **Low** |
|---|---|---|

**Risk(s):**
- Laws and regulations for public procurement are generally in place and adequate for routine procurement of project requisites.
- Common Law of contract applies in all four countries enabling the use of standard procedures for tendering and contract award.
- The SDB Documents for goods, works and services in Tuvalu is not exist,

Mitigations:
- No mitigations necessary.

- In Tuvalu it is recommended to use IFAD standard bidding documents.

| **Accountability and transparency** | **Moderate** | **Low** |
|---|---|---|

**Risk(s):**
- Small number of local suppliers of some items restricts the scope of competition.
- Family/personal relationships between public authorities and suppliers can compromise procurement processes.
- Lack of consistency in the monitoring and reporting of contractual performance.

**Mitigations:**
- Requirement for prior agreement of procurement/tendering arrangements and no objections for contract awards to be specified in the financing agreement(s).
- Procurement methods appropriate for local circumstances to be specified - including provision for international competitive bidding where local capacity is weak.
- Supervision missions to check a random selection of procurements to verify (or otherwise) that agreed procedures have been followed.

| **Capability in public procurement** | **Substantial** | **Moderate** |
|---|---|---|

**Risk(s):**
- Moderate capacity to undertake procurement at central government level but much less at state (FSM) and local government levels.
- Technical capacity in tender preparation and evaluation is lacking for more complex procurement involving equipment (e.g. for water supply) and civil works (buildings, roads etc).

**Mitigations:**
- Detailed procurement guidelines and procedures to be specified in the PIM.
- Prepare a procurement plan for the fist 18 months (see Annex 7).
- Standardise technical specifications for common procurement items/packages across countries.

| **Public procurement processes** | **Substantial** | **Moderate** |
|---|---|---|

**Risk(s):**
- Possibility of non-compliance with nationally mandated procurement protocols or procedures specified in the financing agreements(s), leading to delays in Project implementation.

**Mitigations:**
- Detailed procurement guidelines and procedures to be specified in the PIM.
- Careful scrutiny of prior review and no-objection requests by IFAD to minimise risks of non-compliance.

**Financial Management**

| **Organization and staffing** | **High** | **Substantial** |
|---|---|---|

**Risk(s):**
- Limited capacity of national implementing agencies and their staff to undertake project financial management and reporting in compliance with IFAD guidelines.
- Serious capacity limitations at sub-national (State/Island Council) levels.
- Both of the above subject to further consideration as part of a financial management capacity assessment to be undertaken before approval by IFAD and GAFSP.

**Mitigations**:

- Detailed financial management guidelines and procedures to be defined in the PIM.
- Capacity building for implementing agencies (national and sub-national) and their staff.

| **Budgeting** | **Moderate** | **Low** |
|---|---|---|

**Risk(s):**

- Delays in preparation and approval for AWPBs leading to implementation delays.
- Under-estimation of costs and subsequent budget shortfalls.

**Mitigations**:

- Detailed budgeting guidelines and procedures to be defined in the PIM.
- Capacity building in budgeting procedures for implementing agencies (national and sub-national) and their staff.

| **Funds flow/disbursement arrangements** | **Substantial** | **Moderate** |
|---|---|---|

**Risk(s):**

- Delays in submission and approval of withdrawal applications may create cash flow problems for National Delivery Units and interrupt implementation of Project activities in target communities.
- There are concerns about disruptions to the flow of funds under a hub-and-spoke management structure. Other multi-country or regional projects employing this model have experienced delays in disbursement of funds from the central PMU to the participating countries.

**Mitigations**:

- Timely preparation and approval of withdrawal applications will be facilitated by the use of appropriate accounting software packages in the National Delivery Units and training of NDU financial controllers in their use.
- Supervision and implementation support missions will provide backstopping and support to NDU staff to expedite the preparation of withdrawal applications.
- Direct disbursement of funds from IFAD to the NDUs will avoid flow of funds problems commonly associated with hub-and-spoke management structures.

| **Internal controls** | **Substantial** | **Moderate** |
|---|---|---|

**Risk(s):**

- Inadequate internal controls in NDU finance units may result in ineligible expenditure or non-compliance with terms of the financing agreements, disrupting implementation.

**Mitigations**:

- Preparation of detailed financial management and reporting procedures as part of the PIM and intensive training of NDU finance personnel in their use.

| **Accounting and financial reporting** | **High** | **Substantial** |
|---|---|---|

**Risk(s):**

- Failure of NDU finance departments to prepare and submit financial reports to the standard required and in a timely manner.

**Mitigations**:

- Preparation of detailed financial management and reporting procedures as part of the PIM and intensive training of NDU finance personnel in their use.

- Installation of appropriate accounting software packages and training of NDU finance personnel in their use.

| External audit | Moderate | Low |
|---|---|---|

**Risk(s):**
- Inadequate capacity of Government auditors to provide timely audits of annual financial statements.

**Mitigations**:
- Appointment of private/independent audit firms where Government auditors are unable to provide this service.

**Environment, Social and Climate Impact**

| Biodiversity conservation | Low | Low |
|---|---|---|

**Risk(s):**
- Possibility that Project interventions may result in loss of biodiversity in natural or agro-ecosystems (terrestrial and marine).

**Mitigations**:
- The exclusion list proposed in the SECAP Review Note (Annex 5) will screen out proposals that pose obvious biodiversity risks.
- Procedures for prior biodiversity and environmental impact assessment are detailed in the Environmental and Social Management Framework (ESMF) presented in Annex 5 and to be included in the PIM.

| Resource efficiency and pollution prevention | Moderate | Low |
|---|---|---|

**Risk(s):**
- Possibility that Project interventions may result in sub-optimal or un-sustainable use of natural resources (marine, terrestrial, water), or create damage from pollution.

**Mitigations**:
- Water management options will be subject to prior hydrological assessment to ensure optimal and sustainable management of water resource and measures to prevent contamination.
- Measures to increase agricultural productivity will employ climate-smart and nutrition-sensitive approaches, and will be subject to screening and assessment under the ESMF.

| Cultural heritage | No risk | No risk |
|---|---|---|

**Risk(s):**
- No significant risk envisaged.

**Mitigations**:
- The community-driven and inclusive approach to prioritisation of Project interventions will ensure that cultural heritage assets are not threatened.

| Indigenous Peoples | No risk | No risk |
|---|---|---|

**Risk(s):**
- All project beneficiaries are indigenous.

**Mitigations**:
- None

| Community health and safety | Low | Low |
|---|---|---|

**Risk(s):**

- The great majority of SIFWaP interventions are intended to generate health benefits from improved nutrition and/or access to safe water for drinking and other domestic purposes.
- However, there may be some small safety risks associated with construction of civil works.
- Increased gender based violence as a result of project activities

**Mitigations**:
- No specific mitigation measures are required other than normal workplace safety requirements.
- For GBV, select communities with first respondents, health workers, relevant decentralized institutions (i.e. Chuuk women's council) or NGO with the mandate and expertise to address GBV. Retain the services of NGO qualified in the subject, Collaborate with other development partners (i.e.Pacific Women), and support government programs aimed at addressing violence against women (i.e. funding at various levels), create exchange visits and give visibility to good practices.

| **Labour and working conditions** | **Low** | **Low** |
|---|---|---|

**Risk(s):**
- Non-compliance with national labour and working conditions laws/regulations.

**Mitigations**:
- Government and private sector employers are required to comply with national and international standards relating to labour and working conditions.

| **Physical and economic resettlement** | **No risk** | **No risk** |
|---|---|---|

**Risk(s):**
- No resettlement is envisaged.

**Mitigations**:
- None

| **Greenhouse gas emissions** | **Low** | **Low** |
|---|---|---|

**Risk(s):**
- Possibility that Project interventions may increase emissions of greenhouse gases.

**Mitigations**:
- Investments in agricultural production for food security will employ CSA approaches involving both climate adaption and mitigation measures.
- The menu of options for both private and public good investments favours renewable energy such as solar (for water pumps, desalination etc.) and biogas generation.

| **Vulnerability of target populations and ecosystems to climate variability and hazards** | **High** | **Substantial** |
|---|---|---|

**Risk(s):**
- Managing climate variability is a major change for target communities in the Project areas. The principal climate hazards include tropical cyclones, storms, and droughts.

**Mitigations**:
- Key climate vulnerabilities will be identified during the community consultation process in Component 1, leading to prioritisation of public and private good investments to address these vulnerabilities.

| | | |
|---|---|---|
| • Agricultural interventions will employ climate-smart technologies, both traditional and new, to help manage and adapt to climate variability and hazards. Investments in water supply will reduce the vulnerability of beneficiaries to droughts. | | |
| **Stakeholders** | | |
| **Stakeholder engagement/coordination** | **Low** | **Low** |
| **Risk(s):**<br>• Component 1 will focus on engagement with beneficiary communities and households and will be the entry point for Component 2 activities. This suggests a low level of risk in relation to stakeholder engagement/coordination. | | |
| **Mitigations**:<br>• Community Field Officers (CFOs) and Island Facilitators (IFs) will be trained in participatory methods. | | |
| **Stakeholder grievances** | **Moderate** | **Low** |
| **Risk(s):**<br>• Approval of support for public and private good investments using the proposed matching grants facility may be challenged by un-successful applicants.<br>• There may be allegations of malpractice or gender-bias in the allocation of matching grants or other project support such as training. | | |
| **Mitigations**:<br>• A Grievance Redress Mechanism is included in the Project design. Beneficiary communities will be trained on how to appeal against decisions that they consider to be unfair or improper. | | |

**Annex 10: Exit Strategy**

**General:** The basic foundation for sustainability of all project activities is the up-front investment in community consultation, planning and capacity-building, within a decentralised implementation framework. This will ensure that SIFWaP supports interventions that have been evaluated, selected and prioritised by the participating communities, and to which they demonstrate commitment through their contributions under the cost-sharing arrangements. Wherever possible the project will work through existing community organisations such as Island Councils and producer associations, which have better prospects of being sustained than project-oriented bodies. For public good type investments, the project will also provide training and capacity building in O&M of jointly-owned facilities, e.g. through WUGs or similar. Ensuring the sustainability of projects is challenging in the region, in particular because some NGOs tend to disengage from activities when project funding ceases. Working with NGOs or entities that have a long-term presence and sources of financing, independent of a single project, can help ensure sustainability.

**Implementation Phasing:** The three-phase approach is also designed to enhance sustainability. It will be explained to potential beneficiaries at the outset, that the period and scope of project support will be finite and will come in three Phases. Phase 1 provides the time needed to establish sound community consultation and planning processes within the target communities. Phase 3 is essentially the exit strategy, whereby no new activities would be initiated during the final year of the project, allowing adequate time for consolidation, handover and orderly withdrawal of project support. This recognises that activities launched in the closing stage of a project (often to chase implementation targets or disburse un-used resources) have a poor record of sustainability.

The effective implementation of any exit strategy is dependent on the degree to which the development of community is participatory and inclusive and ultimately owned and assimilated by the full community constituencies. The cohesion and strength of community organisations is also a factor in ensuring the long-term sustainability of investments, including sustained funding and effort towards operations and maintenance of infrastructure and other investments.

Monitoring the progress in the development of the community plans, and qualitative feedback on the performance of community organisations will allow the project to assess the level of readiness to implement the exit strategy.

**Incentives:** For private good-type activities, sustainability will be underpinned by a focus on individual incentives relating to the production and consumption of nutritious foods, and/or commercialisation of previously subsistence-oriented activities. Whilst activity groups/CIGs will enable the delivery of project support, and may also facilitate product aggregation and marketing activities, individually rather than communally-owned ventures will predominate on the grounds that they generally have better sustainability prospects. However, this will not exclude implementation through associations or similar forms of organisation, where these exist.

**Project Assets and Services:** Ownership and management responsibility for all assets, whether public or private good in nature will rest with project beneficiaries from the outset. This avoids the need to transfer ownership during the course of implementation, with risks to sustainability where the assets are seen as belonging to the Government or the project. No interventions are foreseen where recurrent services are critical for sustainability.

**Institutions and Management Structures:** The project will be managed through a decentralised implementation framework that delegates responsibilities and ownership first to country level, and then to the local (island and community) level. It will work

through existing/permanent national and sub-national institutions, providing capacity-building where needed.

**Social Access and Inclusion:** The community-driven approach will spearhead the process of social access and inclusion. This will take place through engagement with both traditional authorities at community level and local government (e.g. Island Councils) at island level. This reflects the strong social structures in the Northern Pacific islands and the need to engage both traditional leaders and elders as well as formal institutional leaders to achieve social inclusion objectives. This will enable broad-based and inclusive community engagement including meetings which involve people who would not traditionally participate. This approach will be maintained throughout the life of the project, not just during initial consultations, and will facilitate the inclusion of disadvantaged and vulnerable groups including elderly, women, youth and the disabled. Experience has shown that employing project staff from the communities to which they are assigned greatly improves the quality of community engagement and the process of social inclusion.

## Annex 11: Full Description of National Contexts

### Demography

The four SIFWaP countries are among the smallest, most isolated and fragile of the Small Island Developing States (SIDS). They mainly comprise coral atolls scattered over a vast area of ocean with a total population of 286,400 and an average population density of 167 persons per square kilometre (Table 1).

The high population densities combined with the low productivity of agro-ecological systems, especially on the atolls, contributes to a precarious food and nutrition security situation across the region. The countries are heavily dependent on their marine resources which generate royalties from tuna fishing by mainly foreign flagged vessels but this contributes little to food security or livelihood opportunities for the majority of the population.

Table 16: Population and Population Density

| Country | Land area ($km^2$) | Sea area a/ ($km^2$) | Population | Persons/$km^2$ |
|---|---|---|---|---|
| FSM | 702 | 2,600,000 | 104,600 | 150 |
| Kiribati | 800 | 3,500,000 | 115,300 | 146 |
| RMI | 181 | 460,800 | 55,000 | 293 |
| Tuvalu | 26 | 900,000 | 11,500 | 431 |
| **Total** | **1,709** | **7,460,800** | **286,400** | **167** |

a/ Area of Exclusive Economic Zone
Source: Pacific Community (SPC) National Minimum Development Indicators https://www.spc.int/nmdi/

Living conditions and poverty levels are particularly severe on outer islands away from the capitals where there are few employment or income generating opportunities, poor infrastructure and services and infrequent transport linkages. Outmigration of the most productive people, combined with climate change and vulnerability to natural disasters threatens the existence of these extremely isolated communities.

Populations are static in the Federated States of Micronesia (FSM) and the Republic of the Marshall Islands (RMI) due to foreign employment, education and health care opportunities that their citizens can access under the Compacts of Free Association with the United States of America (USA). Kiribati and Tuvalu are experiencing rapid population growth with limited emigration opportunities, mainly confined to seasonal employment schemes in Australia and New Zealand.

### Key Data

Key data for each country is presented in Table 1 and

Table 2 in terms of population, economic performance and measures of human development.

Table 17: Key Data Table

| Indicator | Year | FSM | Kiribati | RMI | Tuvalu | Source |
|---|---|---|---|---|---|---|
| GDP (current US$), million | 2018 | 402 | 197 | 221 | 43 | World Bank |
| GDP per capita (current US$) | 2018 | 3,568 | 1,698 | 3,788 | 3,700 | World Bank |
| Human Development Index | 2019 | 0.620 | 0.630 | 0.704 | NA | HDR c/ |
| Life expectancy at birth | 2019 | 68 | 68 | 74 | 67 | HDR |
| Expected years of schooling | 2019 | 11.5 | 11.8 | 12.4 | NA | HDR |
| Prevalence of obesity in the adult population a/ | 2016 | 69% b/ | 46% | 53% | 52% | WHO d/ |

a/ Obesity only: excludes overweight b/ From 2017 National Strategic Action Plan for Prevention and Control of NCDs. c/ Human Development Report d/ World Health Organisation

## Federated States of Micronesia (FSM)

FSM is a federation of four states comprising 607 islands, mostly coral atolls, of which around 65 are populated. It extends over 2,700 km from east to west. The four states in FSM include: Pohnpei (with the FSM's capital city in Palikir), Kosrae, Chuuk, and Yap. FSM differs geographically from the other three North Pacific Islands in that the islands are largely volcanic but also has a large number of atoll outer islands.

Population is declining gradually due to temporary or permanent migration to the USA and is spread among the states approximately as shown in Table 3:

Table 18: Population Distribution of FSM

| State | Population | Distribution |
|---|---|---|
| Chuuk | 49,900 | 30% on outer islands |
| Pohnpei | 37,200 | <1% on outer islands |
| Yap | 11,700 | 40% on outer islands |
| Kosrae | 6,700 | No outer islands |

Government and the economy are heavily dependent on financial support from the USA under the Compact of Free Association, scheduled to expire in 2023. Agriculture, livestock and fishing activities are undertaken by over 70% of FSM households, predominantly for family use, but with only about 10% of households engaging in these activities for cash sales. There are small amounts of production for export, mainly kava, bananas, root crops and betel nut sent to Guam.

Agricultural potential in FSM is much higher than the other three countries with over 70% of the population living on fertile volcanic islands and relatively few on atolls. Nevertheless, food imports have risen steeply over the last two decades reflecting a change in diet away from traditional staples, and imported food now dominates household expenditures, particularly in poorer families. Most imported food products are meat, rice, pasta, baked goods and fish. Dietary diversity is poor, with very low intake of fruit and vegetables. Un-restricted access to the USA labour market by FSM citizens has drawn labour away from rural areas and agricultural pursuits.

There are opportunities for import substitution of starchy food and livestock products, although shortages of locally produced feed constrain the latter. Poor diet quality, heavy dependence on poor quality imported food, over nutrition and sedentary lifestyles are associated with a high prevalence of non-communicable diseases (NCDs). The National Plan of Action for Nutrition provides a strategic framework to help address nutrition-related health problems. It advocates incorporating nutrition goals and components into national development policies and sector plans, programmes and projects, particularly in the areas of food and agriculture, fisheries, forestry, health, education, and environment. The 2019-

2024 version of the Plan of Action includes a multi-sectoral framework by promoting the production and consumption of fruit and vegetables for improved diet quality.

**Kiribati**

The Republic of Kiribati consists of 32 scattered atolls that mostly rise to no more than 2-3 metres above sea level spanning over 4,500 km from East to West. There are three main archipelagos: Gilbert, Phoenix and the Line Islands. Its only significant source of income comes from fishing licences which generate over half of Government revenues but generate little in the way of employment or livelihood opportunities. Almost half of household income is spent on food, mainly on imported products including rice, meat and processed foods of poor nutritional value. About half of the population lives in crowded conditions on the main island of Tarawa, and the remainder in small communities on extremely isolated and resource-poor outer islands. None of the inhabited atolls lie more than a few meters above sea level, and the effects of rising sea-levels and associated soil and water salinization is reducing the amount of arable land and threatening fresh water supplies.

Agriculture and fisheries development feature prominently in national and sectoral plans, with an emphasis on food and nutrition security and income generation for outer island communities. However agricultural conditions are challenging due to the poor atoll soils, low and erratic rainfall, deteriorating groundwater resources and recurrent droughts and storms. Copra is the only cash crop grown on the outer islands but coconut plantations are ageing and copra producers rely heavily on government subsidies. Population growth of around 1.7% percent per annum creates an additional challenge for already insufficient local food production, compounded by lack of access to arable land in South Tarawa where over half the population live on less than 16 $km^2$ of land. This limits opportunities for local food production and puts increasing pressure on water and sanitation systems. In addition, coastal fisheries are in decline due to un-sustainable fishing practices, a significant risk to households given that 51% engage in subsistence fisheries (SPC https://www.spc.int/nmdi/fish_economics_macro).

The FAO Country Programming Framework (CPF) estimates that over 60% of all food consumed on South Tarawa is imported, resulting in diets reliant on high amounts of imported food, especially rice, wheat, fish, poultry and baked goods. Poor diets are a significant driver of NCDs, for which 75% of the population is at high risk, and are responsible for almost 70% of deaths. The Ministry of Health reports that NCDs increased more than threefold between 2005 and 2010, imposing a major burden on the health budget and with serious implications for productivity at household, enterprise and national levels.

**Republic of the Marshall Islands (RMI)**

RMI comprises 1,156 islands and 29 coral atolls with an average elevation of about two metres above sea level. The two urban centres are on Majuro and Kwajalein atolls and peri-urban centres are also located in Jaluit and Wotje atolls. All other atolls are classified as rural outer islands, which are low lying with poor agricultural potential. Heavy dependency on financial support from the USA under the Compact of Free Association (due to expire in 2023) and a high dependency on food imports including those of poor nutritional value which pose significant challenges to food and nutrition security. RMI is highly vulnerable to climate change and is already experiencing significant damage from storm surges and coastal erosion. RMI is one of the most urbanised countries in the Pacific with over 70% of the population living on Majuro or Kwajalein, which have high population densities.

Agricultural production is relatively small but important to the livelihood of rural people. It comprises food crops, small livestock and one major export cash crop, copra, along with

several others for domestic markets in the urban centres. There is an abundance of underutilised land offering potential for increased output of food crops. Copra, coconut oil and tuna constitute the main exported commodities. However, copra production is supported by a subsidy of US$ 1.10 per kg which is more than double export parity. Most agriculture is for subsistence. Breadfruit is the most widely available staple food and consumed when in season, but traditional food crops are under-represented IN the local diet, even in rural areas on the outer islands. Root crops have almost completely disappeared from the diet, with rice becoming more commonly consumed. There is very limited vegetable or fruit production or consumption outside Majuro Atoll. The FAO CPF estimates that around 90% of all food is imported, mostly less nutritious items, contributing to the high prevalence of NCDs and a large food import bill. Ocean tuna fisheries contribute around 15% of GDP in the form of income from licence fees, and generates nearly 90% of exports. Just over a third of households rely on subsistence fishing. However, local fishing and fish consumption have been dwarfed by imported meat consumption despite local commercial fishing development by the informal sector, the re-investment of rising tuna revenues into coastal fisheries, and a 30-year collaboration with the Japan Overseas Fisheries Cooperation Foundation.

The main risk factors for NCDs including poor diet quality and inadequate physical activity are established early in life. The high prevalence of NCDs puts immense pressure on health-care systems and the overall development of the nation. To address these challenges, the Ministry of Natural Resources and Commerce has recently approved its Agricultural Sector Plan. One policy response being considered is to double the tax on sugary drinks.

**Tuvalu**

Tuvalu is the smallest of the four countries with a population of just 11,200 living on six low-lying atolls, about half on the main island of Funafuti. All islands are less than five metres above sea level, with the biggest island, Vaitupu, having a land area of just over 524 hectares. The total land area is approximately 26 $km^2$ with an exclusive economic zone[53] of 719,174$km^2$. The economy is heavily dependent on aid and remittances.

The low-lying atolls are vulnerable to cyclones and the prospect of inundation from rising sea levels. Higher sea levels already threaten the country's groundwater and the future existence of Tuvalu. On Funafuti groundwater is already un-useable and the only sources of water are rainfall and desalination. Rising sea levels are also contributing to soil salinity, adding further pressure to already limited local food production. The economy is heavily dependent on aid and remittances. However, subsistence cropping and artisanal fishing are important pillars of livelihoods on the outer islands. Despite this, local food production is insufficient to meet local demand and as a result, a high proportion of household expenditure is spent on four imported foods (rice, flour, biscuits and sugar). The result is diets of poor quality and diversity, which are contributing to the high prevalence of NCDs including overweight and obesity. This situation is particularly acute on Funafuti where the population density is extremely high and there is little opportunity for growing local food.

Depopulation of the outer islands is causing labour constraints and a heavy concentration of population on Funafuti atoll. There is a shortage of locally produced food in markets and retail outlets, even though the limited supplies are quickly sold at high prices – see Working Paper 3 on marketing. Inter-island transport is erratic and expensive, limiting opportunities to source perishable foods on outer islands and increasing dependence on imported food of limited and often poor nutritional value.

53 An exclusive economic zone is a sea zone prescribed by the 1982 United Nations Convention on the Law of the Sea over which a state has special rights regarding the exploration and use of marine resources, including energy production from water and wind.

The reliance on less nutritious imported food is linked to increasing obesity and NCDs. Promoting healthy diets, increased local production of nutritious foods and expanding home gardening are government priorities. However, Tuvalu faces many challenges to increasing agricultural production including: poor soils and growing conditions, small land areas, decline of outer island populations, increasing urbanisation, declining interest in traditional agricultural practices, distance to export markets, and poor local market access.

**Key Geographic Features**

The countries of the North Pacific are mostly atoll islands. Kiribati, Tuvalu and RMI are all atolls, while FSM comprises both atolls and volcanic islands. Atoll soils are formed almost entirely from coral and are coarse-textured with no clay and poor water holding-capacity. Moreover, droughts are common in this part of the world[54]. The soil is often salty, highly alkaline and low in nutrients such as potassium, iron and manganese. Inorganic fertilisers and chemical pesticides are prohibited on most of the atolls as they could pollute valuable underground fresh water.

The wet tropical climate of the region is characterised by three extensive bands of wind convergence and associated rainfall. These region experiences seasonal rainfall variations, but little variation in temperature. However, the countries often experience extreme events including tropical cyclones, storm surges, heat waves, drought and heavy rainfall. Tropical cyclones produce damaging winds, heavy rainfall and storm surges which can have devastating impacts.

The four countries all have remote islands that are particularly vulnerable to climatic and other natural disasters which threaten both food and water security. They are all experiencing rising sea levels leading to chronic coastal erosion and social and economic disruptions. Climate models forecast increasing frequency of extreme/destructive climatic events such as droughts and hurricanes. Most islands suffer from unreliable drinking water sources, varying from Funafuti, Tuvalu which relies completely on rain water for drinking and agriculture to Pohnpei, FSM which has underground and surface water sources.

**Regional Context**

The proposed GAFSP intervention is considered in the context of the SIDS Accelerated Modalities of Action (SAMOA) Pathway of 2014 and the Global Action Programme on Food Security and Nutrition in SIDS (GAP), as well as the Sustainable Development Goals (SDGs). The GAP focuses on three broad objectives: (i) enabling environments for food security and nutrition; (ii) sustainable, resilient and nutrition sensitive food systems; and (iii) empowered people and communities for improved food security and nutrition. All of these objectives are highly relevant to the context of the four participating countries.

The four applicant countries are members of a number of **regional organisations** including: the Pacific Islands Forum; SPC; the Pacific Islands Forum Fisheries Agency; the South Pacific Regional Environmental Programme; the South Pacific Tourism Organisation; and the University of the South Pacific. SPC is the key technical agency for the region and will play an important role as the custodian of the region's plant genetic resources managed by the Centre for Pacific Crops and Trees (CePaCT). Together, these organisations provide a platform for collaborative approaches to food, nutrition and water security, climate change, fisheries management, human resource development and environmental management within the region.

54 https://theconversation.com/how-food-gardens-based-on-traditional-practice-can-improve-health-in-the-pacific-75858

The proposed Supervising Entities, FAO and IFAD, also work within appropriate regional strategies. The **FAO Multi-Country CPF** for the Pacific Islands (2018-2022) recognises the importance of sustainable development of natural resources and the role of agriculture, forestry and fisheries for food security and nutrition, livelihoods and economic development in the Pacific island countries (PICs). It notes that in many PICs, agriculture, fisheries, food security, NCD and nutrition policies target reducing the dependency on imported food and increasing the availability, access and consumption of local nutritious food. Priorities for adapting to climate change and preparing for and responding to natural disasters are included in all countries' policy frameworks with many countries already (or in the process of) preparing integrated national plans for climate change and disaster preparedness. The FAO Framework also reports that many countries have prepared NCD action plans which recognise the need for a multi-sector approach to reducing nutrition-related NCD risk factors.

**IFAD's Pacific Partnership Strategy** reflects IFADs approach to working with SIDS including: (i) promoting sustainable small-scale fisheries and aquaculture; (ii) enhancing opportunities for employment, access to finance and access to markets; and (iii) strengthening resilience to environmental and climate change. IFAD's approach for the PICs is based on developing partnerships to enable poor rural people to improve their food and nutrition security, raise incomes and strengthen their resilience. In doing so, IFAD is building strong partnerships with its member states, other international financial institutions, development partners, and civil society. The Partnership Strategy has two objectives: (i) rural people in remote areas and outer islands produce, consume and market more local foods in environmentally sustainable ways; and (ii) rural people earn more from farm and non-farm activities and employment. IFAD's regional, multi-country and national project and programmes in the region are supported from Jakarta Sub-Regional Hub and its Pacific Sub-Regional Office in Suva (Fiji).

**Overview of the Agricultural Sector**[55]

Agriculture and fishing have been the mainstay of sustainable livelihoods in the North Pacific for centuries. However, in recent decades the traditional livelihood systems have broken down with serious consequences for food and nutrition security. All four countries face similar challenges. Traditional livelihood systems based on food crops (taro, sweet potato, cassava, breadfruit, pandanus and bananas), copra as the main cash crop, and inshore artisanal fishing are in decline due to multiple factors including: (i) natural resource (soil, water, forest, marine) degradation due to over-exploitation, and unsustainable management practices, exacerbated by climate change; (ii) rising sea levels and salinization of soil and water resources; (iii) internal migration from outer islands to overcrowded main islands/capitals; (iv) outmigration of productive individuals leading to high levels of dependency on remittances; and (v) the flooding of local markets with cheap imported foods of, often of poor nutritional value; and (vi) shifting consumer demand in favour of imported foods that are quick and easy to prepare.

Whilst this general pattern prevails, there are differences between the four countries and even between islands, which justifies the community-led approach. There are opportunities to improve agricultural productivity using intensive methods based on both traditional and modified agricultural practices including home gardens and simple hydroponic methods to produce a range of nutritious fruit and vegetable crops. Local production of pigs and poultry could also be improved by confining animals and making better use of local feeds.

55 Throughout this document the agricultural sector is broadly defined and includes crops, livestock, fisheries, aquaculture, forestry and related activities.

**Water Security56**

Most of the islands in the four participating countries face water security challenges. With water demand being roughly proportional to population, the heavily populated atolls with growing populations, particularly the capital islands, face chronic or recurrent water shortages in both volume and quality terms, exacerbated by increasing temperatures, rising sea level and periodic droughts.

A water security assessment in the participating countries categorises each island according to its drought vulnerability and investment needs, with Category 4 requiring major investments and Category 0 being reasonably water secure and not in need of significant water security investment. The results are summarised in Table 4.

**Table 4: No and Percent of Households According to Water Security Assessment**

| | No of Households by Category | | | | | |
|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | Total |
| FSM | 7,506 | 8,232 | 504 | 482 | 63 | 16,787 |
| Kiribati | | | | 3,257 | 14,515 | 17,772 |
| RMI | | 5,216 | 197 | 2,014 | 321 | 7,748 |
| Tuvalu | | | 1,215 | 105 | 306 | 1,626 |
| Total | 7,506 | 13,448 | 1,916 | 5,858 | 15,205 | 43,933 |

| | Percent of Households by Category | | | | | |
|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | Total |
| FSM | 45 | 49 | 3 | 3 | 0 | 100 |
| Kiribati | | | | 18 | 82 | 100 |
| RMI | | 67 | 3 | 26 | 4 | 100 |
| Tuvalu | | | 75 | 6 | 19 | 100 |
| Total | 17 | 31 | 4 | 13 | 35 | 100 |

Table 4 shows that almost 23,000 households (52% of the total) fall into water security categories 2, 3 or 4 indicating that they are in need of significant investment to improve their water security. According to this assessment FSM households are most water secure and Kiribati households are least water secure. RMI and Tuvalu also have significant concentrations of population with low levels of household water security. Water insecurity has significant implications to not only agriculture production, but also human health and nutrition.

**Agriculture and Food and Nutrition Security Policies and Strategies**

All four countries have National Development Plans that acknowledge the important role played by the agriculture sector in the country's socio-economic development. The national plans of all four countries speak to developing or revitalising the agricultural sector to increase household incomes, reduce reliance on imported food, diversify diets, improve nutrition and health outcomes (including NCDs), and support biodiversity management and ecosystem resilience, particularly in the context of climate change.

The national plans of Tuvalu (National Strategy for Sustainable Development 2021-2030) and Kiribati (Kiribati Development Plan 2016-2019) capture the aspiration for a "healthier" nation in their vision. The national plans for RMI (National Strategic Plan 2020-2030) and FSM (Strategic Development Plan 2004-2023) focus on "resilience" and "self-reliance".

56 An assessment of the water security situation and options for improved management of water resources is provided in Working Paper 2.

Agriculture and food security policy objectives and strategies of the four countries have been largely built around these three themes.

Whilst the sector strategies vary in their current status, the consultations undertaken in preparing the Project provided a clear indication of national priorities, which establish a foundation for project design. Without exception, food and nutrition security is seen as an absolute priority, along with adaptation to climate variability and climate change. This reflects concerns about a growing national food import bill, deteriorating health (and associated costs to the economy), and high levels of household expenditure on food purchases that are increasingly on unhealthy foods. Secure access to high quality water is also a consistent concern on most of the atoll islands.

FSM's Agriculture Policy 2012-2016 of the Department of Resources & Development was reviewed in 2015. The Government has indicated its intention to formulate a new Strategy and has begun this work by revisiting the Review Report of 2015.

A new draft Kiribati Agricultural Strategy (KAS 2020-2030) was released in March 2020. This was formulated by the Ministry or Environment, Lands and Agriculture Development and takes the form of an addendum to the Kiribati 20-year vision (KV20)

RMI prepared a new Agricultural Sector Plan in 2020 to cover the decade from 2021 to 2031. Preparation of the plan was coordinated by the Ministry of Natural Resources and Commerce and involved a broad cross section of stakeholders representing Government, NGOs and the private sector.

Tuvalu has a current National Agriculture Strategic Plan (2016-2023) for the Department of Agriculture, which includes an indicative investment requirement of AUD 5.5 million (US$ 3.8 million), but there is limited detail on the activities to be financed.

Working Paper 4 presents a detailed review of food and nutrition security issues in the four participating countries. None of the four countries have current nutrition plans or strategies. However, nutrition is a consistent theme of related sector strategies such as health, agriculture and food security. Tuvalu and FSM have National NCD Policies57 that include components on improving nutrition, primarily through increasing local production and consumption of fruit and vegetables and reducing overweight and obesity; and in Tuvalu through improved nutrition education and skill development.

While some countries have current agricultural strategies, none of them have developed National Agricultural Investment Plans (NAIPs). The process of developing the NAIPs is at a preliminary stage involving stakeholder consultative processes to determine the priority areas for investment

The in-country consultations in June-July 2019, provided a foundation for the GAFSP project design and represented the first step in developing, strengthening or updating sectoral policies, strategies and investment plans. Moreover, Component 3 of SIFWaP will provide further support for developing NAIPs that address the multiple causes of fragility.

**Alignment with SDGs**

The Kiribati and Tuvalu national plans were framed in alignment with the SDGs and other international and regional commitments such as the SAMOA Pathway, Paris Agreement and the Framework for Resilient Pacific Development. The RMI Strategic Plan was aligned to the Millennium Development Goals (MDGs) and recognised the importance of alignment to the Post-2015 agenda through the SDGs. The FSM Strategic Plan was formulated prior

57 FSM: National Strategic Plan of Action for the Prevention and Control of Non-communicable diseases (2019-2024); Tuvalu: National Noncommunicable Diseases Strategic Plan (2017-2021).

to the SDGs and therefore make reference only to the MDGs. However, work is ongoing to mainstream the SDGs into the FSM development plans. The policy objectives of all four countries respond to the targets of SDG 2, "End hunger, achieve food security and improved nutrition and promote sustainable agriculture" and SDG 1, "Ending poverty in all its forms everywhere".

The Project will focus on pursuit of SDG 2. This is approached by all four countries on various fronts such as:

- Adopting improved soil management techniques.
- Combining traditional knowledge and practices with modern techniques to improve agricultural productivity and inshore fisheries management.
- Investing in research and propagation of resilient and nutritious crop varieties and livestock breeds.
- Encouraging the participation of women and youth in agriculture to support increased local production, particularly at home gardens and school farms.
- Addressing nutrition-sensitive value chain linkages with the agricultural sector to support a vibrant local fresh food market that offer diverse local fruits, vegetables and seafood to the community.
- Increasing knowledge, awareness and training on nutrition and healthy meal choices to promote improved diet quality.
- Strengthening of Agriculture institutions to offer more effective services to farmers and the private sector.

The Project will also contribute to pursuit of SDG 1. The policies of all four countries recognise the potential for agriculture to support poverty reduction by raising household income from agriculture, creating employment on and off the farm and creating new economic activities. It will also contribute to SDG 6 (clean water and sanitation), SDG 12 (responsible consumption and production) and SDG 13 (climate action).

**Key Elements of the Policy Environment**

All four countries recognise the importance of creating an enabling environment for investment in the agriculture sector, including the adequate financing and institutional strengthening of their respective Agriculture Departments/Divisions, to more effectively support farmers and the private sector.

These countries' health, food security and nutrition policies respond to a number of challenges, including over-reliance on cheap imported food, often of low nutrition value, poor diet quality, a high-prevalence of nutrition-related NCDs and challenging agricultural conditions as a result of limited labour force, low soil fertility, and logistical challenges in trading local food produce.

To address these challenges, policies focus on increasing production of local nutritious food to reduce reliance on imports and improve availability and access to nutritious foods, particularly fruit and vegetables. In particular, policies embrace the development of home gardens to support household food and nutrition security. Tuvalu and Kiribati share a focus on soil management techniques such as targeted composting while RMI and FSM prioritise sustainable land use management practices. All four countries recognise the importance of combining traditional knowledge and practices with modern techniques to build resilient agricultural system at the household and community level.

To address the logistics challenges in trading local produce, the countries further prioritise the development of an efficient marketing systems that provide fresh root crops, fruits and vegetables to all communities.

In addition, all four countries share an emphasis on increasing nutrition awareness and education, with a focus on promoting health diets and food choices whilst also creating opportunities in the agriculture sector to encourage the participation of women and youth.

Overall, the national policy environment of each country under which the project will be implemented is very conducive to development interventions or initiatives within the agricultural sector, particularly those aimed at improving food and water security and nutritional outcomes, despite the lack of specific nutrition policies. Notwithstanding the challenges shared by the four countries such as limited institutional capacity, diseconomies of scale, the scattered nature of islands and atolls, an underdeveloped private sector, small market size, and geographic isolation, there is a concerted effort by the respective Governments to create an enabling policy and regulatory environment for investment in key sectors, especially agriculture, that can not only leverage economic growth, but also provide a social and economic boost in the livelihoods of the majority of the population.

All four countries possess a range of complementary sector policies in climate change, environmental management, health and nutrition, and trade, which reflect their development aspirations in relation to strengthening household food and nutrition security and building resilience.

**Government Commitment to Agriculture and Food and Nutrition Security**

The four SIFWaP countries are characterised by very small economies, with GDPs in 2018 ranging from US$ 43 million for Tuvalu to US$ 351 million for FSM. Government revenues are also limited in all four countries, with a strong dependence on fishing rights and external donors. Due to limited Government revenues, expenditures primarily finance recurrent costs for ministries and departments.

Nonetheless, even funding for recurrent costs is limited and Government agencies tend to have large mandates with insufficient staffing and operating budgets. For instance, in FSM, the National Department of Resources and Development oversees not only agriculture and marine resources but also trade and investment, energy and tourism and statistics.

Government expenditures on agriculture and food security are shaped by fiscal constraints across all four countries and spending on agriculture is low. For instance, the budget of the Division of Marine Resources and the Division of Agriculture in FSM amounts to less than US$ 0.5 million. Government spending on agriculture more broadly ranged from about US$ 2.0 million in Tuvalu (3.9% of Government expenditures in 2017) to US$ 11.1 million in Kiribati (7.2% of Government expenditures). In all countries, expenditure on agriculture has increased over the past few years, although not necessarily as a share of the Government budgets.

Government resources are primarily allocated to recurrent expenditures as opposed to investments and development programmes. Salaries account for a large share of expenditures in all four countries, ranging from 48% in Kiribati to 76% in FSM.

**National Agricultural Investment Plans (NAIPs)**

The four countries initiated developing NAIPs through stakeholder consultative workshops that formed part of the SIFWaP proposal preparation process in 2019. The workshops determined the duration of the proposed NAIPs (five years) and the key priority areas for investment. The NAIP process envisaged from the consultations includes four steps: (i) a situation analysis to review policies, legislation and public expenditure. This has been

partially completed during the stakeholder consultative; and (ii) prioritisation of issues to be included in the NAIPs. However, a more comprehensive engagement is needed with the populations in outer islands to ensure that all stakeholder interests are represented. The remaining two steps are: (iii) constituting an Interagency Taskforce to develop the draft NAIPs and facilitate prioritisation; and (iv) validation and adoption of the NAIPs through a peer review process. The completion of steps (ii) to (iv) are scheduled to take place during the first 12-18 months of SIFWaP's implementation.

The development of the NAIPs will be a continuation of government strategic and policy development processes in place or being made operational. The NAIPs constitute a prioritisation process of systems, projects and programmes that are either in process or proposed. The NAIPs will not add an additional layer of implementation requirements, but will be integrated within existing country planning processes. The initial NAIP consultations revealed that most of the priority areas for investment have been discussed and there has been some thinking around the priority areas. SIFWaP provides a mechanism to enable a longer term and more strategic planning approach in situations where the focus has been on the more immediate and urgent elements of fragility.

**d. Special Aspects Relating to IFAD's Corporate Mainstreaming Priorities**

**Food and nutrition security** is central to SIFWaP's objectives, theory of change, and proposed interventions. This reflects the poor and deteriorating status of nutrition and health in the participating countries, where there has been rapid food system transformation, and a nutrition transition characterised by an erosion of traditional lifestyles and food systems and diets, reduced dietary diversity, and increasing dependence on imported foods, often of poor nutritional value. The result is the triple burden of malnutrition, with the co-existence of both under and overnutrition, with high rates of child stunting, micronutrient deficiencies and soaring prevalence of NCDs including obesity, diabetes, anaemia and cardio-vascular disease. Co-contributing factors include high population densities on the capital islands that make arable land scarce, difficult agricultural conditions (exacerbated by climate change), export of most of the fish catch, difficulties in preserving and transporting fresh food to the heavily populated areas, and ready availability of cheap imported foods high in refined carbohydrates, salt, sugar and fat. Consumer preferences for imported foods such as rice and instant noodles are also increasing, as these are often regarded as quicker and easier to prepare than local staples, and are often reported as being tastier. Food safety and sanitation standards are also low, accentuated in many cases by water shortages. Households in both rural and urban areas spend a high percentage of their incomes on purchasing food.

Without exception, food and nutrition security is an absolute priority in national development plans, along with adaptation to climate variability and climate change. Food and nutrition security also feature prominently in the agricultural sector strategies, policies and investment plans, food security and NCD policies and action plans. These policy positions support SDG2 (hunger, food security and nutrition) and are also consistent with a number of regional strategies and programmes including FAO's Country Programme Framework for the Pacific and IFAD's Pacific Partnership Strategy. However, this is yet to translate to improving nutrition and health outcomes at household level, especially in the more remote locations and among woman headed households.

The Project will pursue a nutrition-sensitive strategy that seeks to influence both supply and demand side factors affecting dietary habits and nutrition outcomes. The theory of change defines the approach of working on nutrition knowledge, attitudes and awareness and effective demand for healthy food (Component 1), increasing the supply of nutritious foods (Component 2), and the enabling environment for food and nutrition security (Component 3). The targeting approach favours communities and households experiencing high levels of food and nutrition insecurity.

SIFWaP's nutritional aims are expressed at Project Objective level and both of the Objective level performance indicators; and nutrition is part of all three expected Outcomes. It is mandatory that the investments under Component 2, which comprise the largest portion of Project costs, must directly support food, nutrition and/or water security.

**Climate Change:** The Social Environmental and Climate Assessment Procedures (SECAP) note in Annex 5 highlights the vulnerability of the Pacific Islands to climate variability and climate change as a key dimension of their fragility. Observed trends and climate models forecast ongoing increases in temperatures and sea level, as well as increasing frequency of extreme events such as droughts and hurricanes. The SECAP identifies eight impact areas: (i) agricultural productivity decline due to rising temperatures and extreme weather events; (ii) salinisation of agricultural land; (iii) coastal erosion; (iv) salinisation of groundwater; (v) deterioration of coral reef and lagoon ecosystems; (vi) increasing frequency of severe tropical cyclones; (vii) threats to human health due to higher temperatures and extreme rainfall events; and (viii) increased frequency and severity of flooding. All but the last of these, have the greatest impact on the atoll islands that are home to the majority of SIFWaP beneficiaries.

Governments, communities and individuals in the SIFWaP countries have a high degree of awareness about the consequences of climate change. All four countries have developed policies and strategies for climate change adaptation/mitigation and disaster risk management. Their agricultural sector strategies recognise the difficult agricultural conditions in the atoll environment, and give priority to adaptation and mitigation measures as well as related aspects of food and nutrition security. Strengthening resilience to climate change is also a key pillar of IFAD's Pacific Partnership Strategy.

Adaptation to climate change is an integral part of every component and sub-component of the Project. This recognises that, whilst the challenges are formidable and immediate, there is a range of practical measures available to mitigate the impacts in some way, often using measures that make sense with or without climate change – so called "no regrets" initiatives. These will contribute to SIFWaP's objective of improving food, nutrition and water security in the target communities. Measures to be applied will build on both traditional knowledge and new technologies, tailored to local conditions in each country, island and community, and may include some of all of the following:

- Considering climate vulnerability in the selection of target communities.
- Undertaking a climate risk assessment for each selected island and community.
- Identifying indicators to track environment and climate adaptation.
- Presenting beneficiaries with a menu of options for climate smart agricultural interventions including: (i) improved soil health management; (ii) enhance pest, disease and weed control; (iii) selection of nutritious climate-adapted species and varieties; (iv) improved water use efficiency; (v) processing and storage to provide buffer food stocks; (vi) use of protected cultivation and nursery systems; and (vii) better access to and use of weather and climate information.
- Supporting investments in water supply in situations of greatest water insecurity, employing best-practice methods including rainwater harvesting and storage, groundwater management, desalination and solar distillation.

**Gender, Youth and Social Inclusion.** None of the four countries reports data on the Gender Inequality Index. However women's participation in formal non-agricultural employment is low. Rural to urban migration as well as overseas-migration of men contributes to high numbers of women and grandparent headed households. Outmigration of youth is also draining communities of talent and youthful enthusiasm. Women of reproductive age, and in particular young women, are most vulnerable to malnutrition

expressed with anaemia and poor diet diversity which can have intergenerational nutrition, health and developmental implications.

Women, youth, outer island communities and other marginalised groups were an integral part of the consultation and design process during Project formulation and their vulnerabilities and concerns are factored into the Project design.

The Project's Gender Equity and Social Inclusion (GESI) strategy aims to achieve full involvement of all beneficiary groups: women and men, and female and male youth. The strategy seeks to ensure meaningful participation of women and youth in the community consultation processes under Component 1. This Component also incorporates gender-disaggregated approaches to ensure inclusion of women, targets for the participation of youth and vulnerable groups, and creation of decent work opportunities. The logframe indicators specify minimum levels of youth and women membership of Community Committees to be engaged in the preparation of Community Development Plans.

SIFWaP will build on the Kiribati Outer Island Food and Water Project (KOIFAWP) model, which has engaged communities in outer islands. KOIFAWP is delivering material benefits to outer island communities as well as building social cohesion and successfully engaging women and youth groups. The SIFWaP GESI strategy is based on pro-actively involving traditional leaders as well as women opinion leaders, teachers, representatives of faith-based groups, and other resource persons; on the premise that social inclusion and gender empowerment will deliver broad-based social and economic benefits.

About half of Project beneficiaries are expected to be women. SIFWaP will target whole households (usually 50% women and girls), and will incorporate gender-based indicators to encourage the inclusion of women and grandparent headed households and younger people. To fine-tune the project's GESI strategy, during Year 1 each country team will be expected to prepare action plans for gender inclusive development.

## Annex 12: Detailed description of activities

## Detailed Description of Project Activities

### Component 1: Community Engagement

**Outcome 1:** Communities are engaged in activities to promote food, nutrition and water security.

Component 1 will be the entry point for Component 2 investments, and will focus on equitable and inclusive engagement with beneficiary communities and households. It will initiate community-based awareness raising and participatory planning to support nutritious food production and consumption and water supply management with special measures to ensure the meaningful participation of women, youth, PWD and other vulnerable/disadvantaged groups. By engaging communities, this component will ensure the relevance, ownership and sustainability of the investments undertaken. In addition, indigenous knowledge on local foods will be revived, and households better equipped to prepare, preserve and store healthy and nutritious foods.

As part of both Sub-components and using participatory methods, model households and activity frontrunners will be identified as good practice leaders. They will provide demonstrations and additional in-depth peer-to-peer training for Common Interest Groups (CIGs) and individuals. Technical experts and CFOs will train the model households and establish a knowledge management/sharing agenda and learning route itineraries based on jointly agreed objectives. These households will become community champions demonstrating good agricultural as well as nutrition/health and food handling/sanitation practices. They will also be the households trained to spearhead the rollout of HHMs58. The model households will demonstrate home food gardens, plant nurseries, aquaculture, etc., that will feature the adoption of climate smart agricultural techniques, agro-ecological principles, Integrated Pest Management, water use efficient methods, etc. They will promote the use of local crops for family consumption, improved recipes, attention to infant nutrition, maternal health, etc. The model home gardens will be showcased during events and festivals, such as agricultural fairs, celebrations of Pacific Island culture and culinary traditions etc.

A second element common to both Sub-components and to Component 3 will be an assessment, as part of the mid-term review (MTR)[59] of the feasibility of influencing the procurement plans and menus of hotels and restaurants. These could open market opportunities for local production of fresh produce and other healthy food crops as well as increased value addition, through arrangements such as contract farming. The strategic intent of promoting local supply chains linked to the tourism industry is of interest to agricultural development policy in all four countries60.

### Sub-component 1.1: Community Consultation and Mobilisation

**Output 1.1:** Community Committees are operational and communities prepared Community Development Plans.

58 Under the ACIAR Family Team methodology, these HHM couples are called VCFs (Village Community Educators) – see footnote above.

59 The MTR will also consider whether to build on the matching grant experience under Component 1 to introduce a savings mobilisation and community credit activity, as is usually done under CDD programmes in Asia. This would be outsourced to NGOs with a track record in microfinance and would use the CIGs as entry points to adopt a classic SHG-type joint liability lending model.

60 The FSM Agriculture Policy 2012-2016, for example, seeks to promote "enhanced synergies between the agriculture and tourism sectors" (p27).

There needs to be significant up-front work and lead-in time to undertake effective community engagement. The first step will be to select and engage one or more suitably qualified NGO(s) as service providers to undertake the community engagement process in target communities. The NGO(s) will be required to closely coordinate their interventions with the Island Councils and recruit a field team of Island Facilitators (one per island) and Community Field Officers (CFOs). They will also be required to prepare training materials for Island Facilitators, CFOs, and community development committees (CDCs). As much as possible, these will be derived from existing tested materials.

The preparatory activities will furthermore include a familiarisation visit to Kiribati by management team members from FSM, RMI and Tuvalu, to learn from KOIFAWP experience. The second step will be to establish new or revive/repurpose existing CDCs (for public/collective goods) and to map existing or encourage the formation of new CIGs, including producer organisations (for private goods). In all cases there will be a preference to work with existing community organisations/institutions rather than the creation of new ones. The third step will be to train CDCs in management, governance, and participatory planning, and to accompany them for at least three months before getting them start on community planning.

Detailed step-wise guidance on how to implement Sub-component 1.1 is included in the draft Project Implementation Manual (PIM) (for SIFWaP staff) and a Community Engagement Manual (for CFOs), which will draw on several decades of experience with CDD approaches worldwide.

With facilitation by the CFOs and support staff from the partner NGO(s), under the supervision of the Island Facilitators and in collaboration with government agency staff, community consultations will be undertaken to analyse problems and opportunities related to food, nutrition and water security and related livelihood options. This will enable the CDCs to formulate Community Development Plans (CDPs) for food, nutrition and water security to be financed under Component 2. The consultation processes will ensure that the special needs of women, youth and PWDs are considered, and will include the preparation, prioritisation, cost-sharing arrangements, and the submission of the CDPs. The CFOs will assist with networking and linkages where relevant, by connecting producers to potential consumers (including, where available, school feeding programmes).

CDPs[61] will contain two main sections depending on the kind of investment - templates and instructions for filling them are included in the draft PIM. The public goods and services section will serve to finance public/collective goods (see Box 1). For these investments, the community consultation process will, in collaboration with Island Councils and government agencies, define arrangements for operation and maintenance (O&M). In the case of water infrastructure, KOIFAWP-type water user groups will be mandatory (and be linked to policy dialogue under Component 3). The private window will be open to both CIGs and individuals, to be endorsed by the CDCs, to promote investments in income-generating or food and nutrition security-related activities. One of the criteria to be considered for CIGs to qualify will be their intent of partnering with other groups to achieve economies of scale (bulk procurement of inputs/services, aggregation of outputs/marketing, etc.).

The community consultation processes will be participatory, inclusive and iterative with external inputs from technical experts. They will reach beyond straightforward selection

[61] There is broad consensus in the development partner community that given: (i) a host of factors including remoteness and fragility, CDD is amongst the most promising approaches to rural development in SIDS in general, and in such countries' outer islands in particular; and (ii) the relative dearth of scalable success stories in the northern Pacific, well prepared and structured CDPs that cover the major community priorities and opportunities across all sectors, have a high probability of receiving additional funding (beyond SIFWaP) – as also recommended in the PPG study on CBOs.

of priorities among options that are already familiar to the beneficiaries and will - amongst other things - aim at introducing appropriate innovations and the upgrading of technologies. The processes will create awareness about other opportunities and success stories that can be shared to widen the range of choices and encourage the modernised production and marketing of nutritious foods, better management of water resources, and improved livelihood opportunities, especially for women and, youth and PWD.. Communities will be encouraged to try new approaches on a pilot basis, recognising that marginal adjustments to the status quo are unlikely to be transformative, and that to stem the outmigration of youths, "out-of-the-box" ideas and concepts are necessary.

**Sub-component 1.2: Nutrition and Health Awareness**

**Output 1.2:** Communities are trained on food and nutrition.

Evidence has proven that to have significant, lasting impact on nutrition and health outcomes, interventions should not concentrate solely on increasing the local production and/or accessibility of healthier food crops (supply-side). They must also encourage the consumption of these crops (demand-side). Current diets consist mainly of imported food, heavy on rice and ultra-processed products. Initiatives to enhance the production of fresh fruit and vegetables need to be accompanied by measures to promote the cooking, preparation and home consumption as well as the handling, preservation and storage of these foods to improve year-round availability.

In many small island communities, limited household knowledge and awareness of the importance of healthy food contributes to sharply declining health profiles. Even when households have basic nutrition knowledge, they often do not possess sufficiently positive attitudes required to incentivise households to apply their knowledge into good nutritional practices. Sub-component 1.2 will serve to remedy this lack of awareness and positive attitudes and practices, based on stakeholder mapping processes, in parallel with measures to improve local production of nutritious foods under Component 2. This will be done through the CDCs and CIGs in conjunction with institutions such as Island Councils, faith-based organisations, schools, NGOs, advocacy groups, and the ministries responsible for agriculture and natural resources, gender and youth, and health and education.

This Sub-component will consist of a first layer of activities implemented across all communities: (i) gathering and disseminating information on the nutritional and health attributes of indigenous foods (plants/crops, animals, seafood, etc. - extensive international experience can be drawn upon in this context62) and documenting traditional knowledge to share with younger generations; (ii) organising nutritional education sessions and listing the spectrum of locally feasible nutrition-sensitive agricultural production activities with a focus on nutritious food; and (iii) scouting for, providing and/or creating recipes and cooking lessons/demonstrations that include food preservation.

A second layer of activities will be implemented as follows: (iv) adapting school curricula and organising nutrition/health training sessions for teachers as well as establishing food gardens in schools for both educational purposes and to provide nutritious foods for students; (v) supporting communities that prioritise nutrition activities in their on CDPs; and (vi) rolling out HHMs to identify households willing to address their nutrition profiles (see SIFWaP's Nutrition Sensitive Strategy above).

There is an abundance of training materials on food and nutrition in the Pacific, and SIFWaP will help to adapt these in local languages including messages about the opportunities to

62 Derived from implementing approaches such as those, for example, deployed by Biodiversity under programmes dealing with neglected and under-utilised species. Some of these activities may be integrated as part of a package of interventions, as has been done successfully in a number of IFAD-financed projects (such as for example in Madagascar and in the Indian Ocean SIDS).

remedy the situation. SIFWaP will also link with the newly established Pacific School Food Network (https://www.pacificschoolfoodnetwork.org/) to enable access to practitioners who have implemented similar activities in the region. The project will use this material to provide nutrition training as part of the community consultation and mobilisation process (under Sub-component 1.1), also using social media to support awareness raising and knowledge acquisition. The material will eventually be included in Community Development Manuals (a simplified version of the CFO's Community Engagement Manual which will be provided to communities for continued use after the project).

**Component 2: Investments in Food, Nutrition and Water Security**

**Outcome 2:** Communities, activity groups and individuals invest in local production and consumption of nutritious foods and improved water management.

Component 2 will focus on the hard investments for food, nutrition and water security. The component will enable private investments as well as community-based public investments.

Activities implemented under Component 2 will be financed on a cost-sharing basis with the project providing matching grants to help finance investment costs. Beneficiary contributions for both sub-components will mostly be in the form of labour and local materials reflecting the very low cash incomes in small island communities. Recurrent costs will be the responsibility of beneficiaries, although some initial recurrent costs could be partially covered if included in the initial proposal. Proposed eligibility and assessment criteria and for the allocation of matching grants and grant management procedures are provided in Boxes 1 to 4 below and detailed in the PIM.

**Box 1: Indicative List of Activities to be Supported**

| **Community/Public Good Activities** | **Private Good Activities** |
|---|---|
| • Fresh produce markets, fish markets, handicraft markets<br>• Transport infrastructure, feeder roads<br>• Water supply systems: wells, rainwater catchment, solar distillation, desalination<br>• Community level schemes for composting, cold storage, nurseries etc.<br>• School/community gardens<br>• Community fisheries management schemes<br>• Agroforestry, pest and invasive species management<br>• Solar street lights, solar mini/micro-grids, solar Wi-Fi___33 access points | • Composting equipment (including shredders)<br>• Nurseries/seed production inputs and equipment<br>• Small livestock and equipment<br>• Fishing, aquaculture, seaweed and equipment<br>• Home gardens, hydroponics<br>• Root crops, fruit and vegetables<br>• Storage facilities: cold-stores, freezers<br>• Tree crop replanting: coconuts, breadfruit, bananas<br>• Agro-processing, food preservation, virgin coconut oil, breadfruit flour, banana chips, coconut sap sugar, pandanus juice etc.<br>• Solar-powered equipment such as poultry incubators, driers and pumps<br>• Household scale biogas digesters<br>• Non-farm income generating enterprises, e.g. furniture making, brick manufacture |

The list of activities in Box 1 is not intended to exclude other ideas that may emerge during the community consultation process. Possibilities include:

- Application of adaptive models in the fields of farming, livestock raising, aquaculture.

- Investments to improve productivity, seed quality of small-scale horticulture/ aquaculture produce.
- Investment or upgrade of facilities that provide adaptive farming systems, livestock varieties (salt-tolerant varieties, drought-resistant varieties, endemic varieties that are successful in the country and need to be scaled up).
- Investments to generate income or doing business with the trends in environmental protection and adaptation to climate change (waste management, solar energy, water-saving irrigation technology, low energy irrigation equipment, etc.).
- Investment in production and non-farm services in order to create more jobs and increase income for rural people without land or little land for production.
- Investments in increasing value and competitiveness, market access of products, post-harvest processing and marketing facilities etc.

**Sub-component 2.1: Private Good Investments**

**Output 2.1:** Private investments to increase production of nutritious foods for home consumption and/or sale are supported.

This Sub-component will support private investments that will lead to improved food and nutrition security as well as improved livelihoods. It will support activities identified during the community consultation process in Sub-component 2.1 including, but not necessarily limited to those listed in Box 1. Private good investments will be undertaken by individuals or individual group members, commercial entities or cooperatives, existing activity groups, CIGs or similar groups will be supported where these exist.

The identification and implementation of private good investments will follow a stepwise approach involving: (i) needs assessment to identify the relevant nutrition-sensitive investment options for each community; (ii) translating the list of options into local language for presentation during community consultations; (iii) where other options emerge during consultations, adding these to the menu of options; (iv) providing training to potential participants to ensure understanding, ownership and sustainability of the investments; and (v) developing matching grant agreements between the Project and the beneficiary groups.

The project will prepare model activity profiles (technical/financial) for each type of activity included in the menu of private options (Box 1) to guide Community Committees, Activity Groups/CIGs and their members in formulating business plans for their selected activities. The required investments will be financed under a matching grant mechanism, supported by technical and managerial training and backstopping to groups and individuals as appropriate –with Island Facilitators and CFOs working in partnership with government extension services. Training will be tailored to each type of investment and will also focus on agriculture as a business, complemented by financial literacy and business management skills. Where relevant, and on a demand-driven basis, informal groups/CIGs and Farmer Organisations may be provided support to transition into formal entities.

Proposed eligibility and assessment criteria for matching grants for private good investments are shown in Box 2.

**Box 2: Criteria for Private Investment Matching Grants**

**Eligibility Criteria**

- Applicants must be recognised members of a target community that has completed a CDP under Component 1.

- Applicants must be over the age of legal capacity.
- Applicants can be individuals or groups of individuals with a common interest (Activity Groups/CIGs), commercial entities or cooperatives.

**Assessment Criteria: Mandatory**

- Proposed activity/project must be prioritised in the CDP.
- Project objectives, outputs and indicators must be clearly defined.
- Project proposal/business plan must be assessed as being technically and financially feasible.
- Proposed activity is not on the exclusion list (see Annex 5).
- Proposal is consistent with SIFWaP objectives and targeting criteria.
- Applicants must be prepared to contribute their own resources under the matching grant arrangements.
- The proposal must be screened and approved according to the Environmental and Social Management Framework (ESMF) (see Annex 5).
- The grant amount requested must be less than the specified threshold.

**Assessment Criteria: Preferable**

- Applicants are part of a pre-existing community group or association.
- The investment will build on an existing activity and/or the applicant(s) has previous experience with the activity.
- The proposal is put forward by youth, women and/or people with disabilities, or seeks to provide opportunities for the inclusion of such people.
- Partnership arrangements are defined and partners have been engaged in preparing the proposal.
- Training needs are defined.
- Individual/group member roles and responsibilities are clearly defined.
- The proposal is supported by the Island Council or similar local government body including for maintenance beyond group/community capacity.
- Larger contributions from own-resources from the applicants.

The project will undertake careful monitoring of these initiatives to trigger remedial action where necessary and to publicise success stories.

**Sub-component 2.2: Public Good Investments**

**Output 2.2:** Water supply systems and other infrastructure in rural communities are installed and maintained.

Most public good investments are expected to be in water supply, although other types of public good investments can be financed (see Box 1). Indeed, water security is a major livelihood issue on atolls and other islands, which affects the availability and quality of water for domestic purposes as well as for food gardens. The building of small markets or investment in public storage infrastructure can also be envisaged as part of this Sub-component, to facilitate the marketing of products.

The options for improving water security vary between islands and communities depending on total rainfall, rainfall seasonality and variability, hydrogeology and population density. In most cases rainwater harvesting and storage is the preferred option in terms of water

quality. However, as explained in the SPC hydrology assessment in Working Paper 2, in many locations prudent management of groundwater resources offers a more cost effective and sustainable option, although at risk contamination in densely populated areas of salinisation due to rising sea levels and over-abstraction.

In all cases, the investment solutions identified must be technically and financially feasible in the local context, recognising that more complex options require a higher degree of technical support. Where necessary in the case of water-infrastructure investments, Sub-component 2.2 will begin with a water security and hydrological assessment of the target community, building on the national and island-level assessments undertaken by SPC (see Working Paper 2) to develop tailored solutions suited to local conditions, including possibilities such as rainwater harvesting, groundwater management, solar distillation and desalination. Comparison of water supply options in each instance will include estimation of investment costs and whole-of-life operation and maintenance costs in order to identify the most cost-effective interventions, considering also sustainability issues and system reliability under erratic rainfall regimes.

The project will also support the implementation and maintenance arrangements for the investments under Component 2. For instance, in the case of water, the project will support the formation of water user groups (WUGs) for each water activity/project identified during community consultations. It will provide training to WUGs in O&M of water supply systems; as well as training for one volunteer community water technician (per community) on routine repair and maintenance work. Installation of water supply facilities will be financed through matching grant mechanisms to the WUGs under consensus-based water user agreements covering construction and maintenance of the facilities. The project will then install the facilities with technical support from relevant government agencies, and undertake monitoring to ensure proper O&M.

Proposed eligibility and assessment criteria for matching grants for public good investments are shown in Box 3.

**Box 3: Criteria for Public Investment Matching Grants**

**Eligibility Criteria**

- Applicants must be groups or associations that are members of a target community that has participated in Component 1 activities.
- Applicant groups must have identified/appointed office bearers.
- Applicants may be pre-existing groups/associations or new ones, with a preference for the former.
- It is preferable but not essential that applicants be legal entities – but can be un-incorporated/un-registered associations.

**Assessment Criteria: Mandatory**

As for Private Good Investments, plus:

- The applicant group must demonstrate its readiness and plans to take responsibility for O&M.
- Any land ownership or access issues must be identified and addressed.

**Assessment Criteria: Preferable**

As for Private Good Investments, plus:

- The application comes from a pre-existing community group or association with a track record of implementing public good investments.
- Larger contributions from own-resources from the applicants.

**Matching Grant Procedures**

The PIM details the procedures to be employed in administering the matching grants for both private and public good investments based on the principles and guidelines shown in Box 4.

**Box 4: Principles and Guidelines for Matching Grant Administration**

- A two-stage application process will be employed: Expression of Interest (EOI), which will be validated as part of the Community Committee, and proposal, with project support provided to facilitate proposal preparation.
- Formats and templates for EOIs and proposals will be simplified and streamlined in accordance with the capacity of applicants to prepare these.
- EOI and proposal evaluation will be based on a weighted scoring system, to be defined in the PIM.
- Initial screening and approval of EOIs and proposals will be undertaken by vetting committees at decentralised (island) level. Final approval of proposals will be carried out by a national-level committee.
- Feedback will be provided to applicants on all EOIs and proposals, giving reasons for acceptance or rejection. Applicants may revise and re-submit rejected applications on the basis of such feedback.
- Applications may be submitted at any time and will be approved and funded on a "first come, first served basis"; subject to an initial envelope per community
- If not utilised, part of the country's envelope for grants in Sub-Components 2.1 and 2.2 may be re-allocated during the MTR or by subsequent Supervision Missions, with the approval of the Country Project Steering Committees.
- Criteria and project implementation procedures will be defined in a Grant Agreement between the project and the recipients.
- Responsibilities for O&M will be incorporated in the Grant Agreement – WUGs or similar.
- Grant Agreements will be between the project and the primary applicant/ beneficiary. Sub-agreements may apply to other partners.
- The Grant Proposal will be annexed to the Grant Agreement. The Agreement will include the cost estimates and the cost-sharing arrangements, implementation and disbursement plan, ownership of facilities and equipment during/after implementation, monitoring and reporting arrangements and evaluation procedures.
- The Grant Agreements will include capacity building activities to accompany project implementation, for both groups and individuals.
- The Grant Agreements will list eligible and ineligible items of expenditure. If grant proceeds are spent on ineligible items subsequent disbursements may be suspended or cancelled.
- Grants will be performance/output-based with disbursements based on verified milestones rather than advance and acquittal, with a maximum of 3-4 milestones per grant.
- Applicants will be expected to report on implementation progress, with the EOI and proposal defining the baseline situation and the milestone reports documenting outputs.

- The first advance should cover at least one third of the investment cost estimate. Subsequent disbursements will be milestone linked.
- Beneficiary contributions may be cash, materials or labour valued at market prices.
- Beneficiary contributions must be additional; i.e. cannot include existing assets or prior/sunk expenditure.
- Grants will be disbursed directly to suppliers/contractors where feasible.
- SIFWaP will maintain an online portal/dashboard showing the status of all matching grant applications, approvals and disbursements as part of the learning and knowledge management system.

**Cost-Sharing Formulae**

Proposed cost-sharing formulae for matching grants are shown in Table 1. The percentages vary according to the size of the investment and whether it is a public or a private good. Adjustments may be introduced to beneficiary shares during the preparation of the Matching Grants Manual in the first months of the project. The maximum financing envelope (including counterpart contributions) is US$ 8,000 per application for private investments and US$ 40,000 per application for public investments. Besides the beneficiary contributions below, it is also expected that the governments will finance at least 10% of the proposal amount for public good investments, in cash or in kind.

**Table 19: Cost-Sharing Formulae for Matching Grants (Percent of Project Cost)**

| Private Good Investments | | Beneficiary a/ | Project |
|---|---|---|---|
| Women or youth applicants | | 30% | 70% |
| Other applicants | | 40% | 60% |
| | | | |
| Public Good Investments | Govt. | Beneficiary | Project |
| Other projects (US$ 15,000 - US$ 40,000) | 10% | 25% | 67% |
| Small projects (< US$ 15,000) | | 15% | 77% |

a/ Beneficiary contributions may be in cash, labour or materials valued at market prices.

Groups or individuals who receive second or subsequent grants will be asked to provide higher levels of beneficiary contribution.

**Component 3: Enabling Policy Framework**

Component 3 focuses on the enabling environment for food, nutrition and water security, through the development of National Agricultural Investment Plans (NAIPs) for each participating country.

**Outcome 3:** Well-defined investment plans for food, nutrition and water security are in place in each country.

**Sub-component 3.1: National Policies and Strategies**

**Output 3.1:** National Agricultural Investment Plans are prepared for each country.

Building on the process initiated during national consultations in June-July 2019, FAO will provide further support for the development of NAIPs in each county. The approach and methodology will be that employed by FAO and others in the development of NAIPs in

most African countries under the Comprehensive Africa Agricultural Development Programme. The NAIPs will comprise five-year investment programmes synchronised with national planning cycles, incorporating SIFWaP but also including other investments required to reach national and sectoral strategic objectives. FAO will implement this component directly in partnership with the lead national agencies for agriculture, nutrition and water, and will rely on inputs from Farmers' Organisations where relevant.

The NAIP process envisaged from the consultations includes four steps: (i) a situation analysis to review policies, legislation and public expenditure. This has been partially completed during the stakeholder consultative; and (ii) prioritisation of issues to be included in the NAIPs. However, a more comprehensive engagement is needed with the populations in outer islands to ensure that all stakeholder interests are represented. The remaining two steps are: (iii) constituting an Interagency Taskforce to develop the draft NAIPs and facilitate prioritisation; and (iv) validation and adoption of the NAIPs through a peer review process. The completion of steps (ii) to (iv) are scheduled to take place during the first 12-18 months of SIFWaP's implementation.

In addition, the component will also finance various analytical background papers pertaining to the primary sector including, but not limited to: (i) Policy Analysis (ii) Institutional Analysis, (iii) Economic, Import-, Export Analysis, (iv) Farming System Analysis, (v) Donor Mapping.

**Component 4: Project Coordination and Management**

Component 4 will comprise the project coordination and management activities as well as the project Monitoring and Evaluation (M&E) and knowledge management.

**Sub-component 4.1: Project Coordination**

Project coordination will be undertaken by a Project Steering Committee (PSC), comprising two representatives from each of the four countries, as well as representatives from the CPCU, IFAD and FAO as observers. Meetings will be held annually, more often if necessary, and rotated between the four participating countries. The mandate of the PSC will be to: (i) review implementation strategies or roadmaps; (ii) deal with issues of harmonisation with national and sectoral policies/strategies and the respective NAIPs; (iii) ensure coordination with other national and regional programmes and projects; and (iv) represent the project in regional forums on water, food and nutrition security, climate adaptation and related fields.

Each country will also have a small Country Project Steering Committee (CPSC), chaired by the lead implementing agency and consisting of other implementing partners, civil society and the private sector. For FSM, the CPSC will include representation from each of the participating states. The CPSCs will meet twice a year, more often if necessary.

The CPCU will have a three-person team including a Project and M&E Coordinator, a Finance, Administration and Procurement Specialist and a part-time Nutrition Specialist. This CPCU will act as a liaison and a support office for the NDUs and the latter will be responsible for project implementation and financial management. The CPCU will also be responsible for delivering training and capacity building assistance to the NDUs, including training on M&E, Financial Management, and procurement, and will also be responsible for leading the mid-line and end-line survey exercises.

**Sub-component 4.2: Project Management and Capacity Building**

**Output 4.2:** Effective coordination and project management arrangements in place.

The implementation and project management arrangements are described in section 4.L and elaborated in the PIM.

This sub-component includes budget for the effective functioning of the NDUs. Each NDU will consist of three full time staff: a National Project Coordinator (NPC), who will responsible for the overall project implementation at national level and specifically for Component 1; an Investment Manager, who will be responsible for Component 2; and a National Finance and Administration Management officer. In addition, the NDUs will include a part-time M&E and KM officer.

**Sub-component 4.3: M&E and Knowledge Management**

The M&E system will cover: (i) monitoring of implementation performance, execution of the Annual Workplan and Budget (AWPB), outreach and effectiveness of the targeting strategy, and (ii) periodic measurement of programme results (outputs, outcomes and impact) versus agreed targets. The system will comply with GAFSP and IFAD reporting requirements. The M&E functions however go beyond reporting to IFAD and GAFSP: they will support the project management and implementation team in ensuring that they are delivering as planned and achieving expected results, and to inform decisions on adjusting implementation when needed.

The project logframe includes: (i) GAFSP Indicators, (ii) IFAD Core Outome Indicators; and (iii) other project indicators. GAFSP and IFAD Core indicators comply with corporate definitions, detailed in the indicator descriptions in the PIM. GAFSP Tier 1 indicators are at impact level, while GAFSP Tier 2 indicators are at output or outcome level. For each level, the frequency of reporting required by IFAD and/or GAFSP is specified in the PIM. While output reporting requirements are every six-months for GAFSP, it is recommended to have monthly reporting on activities and outputs. There will be baseline mid-line and end-line surveys and post-MTR there will be regular reporting on outcomes.

The responsibility for project M&E and for reporting on the project's progress will rest within each NDU with support from the CPCU. The CPCU will be responsible for consolidating the different country reports for reporting to IFAD and GAFSP. Each country Recipient will be responsible for the financial reporting to IFAD, with support from the CPCU.

The CFOs and Island Facilitators will also be significantly involved in M&E, as the monthly activity reports prepared by CFOs will inform most indicators at output and outreach level. Tablets will be supplied to the CFOs and Island Facilitators to enable direct data entry and transmission to the NDU.

Resources are allocated for collecting data on digital platforms, based on the system currently being rolled out in the KOIFAWP project, to reduce heavy data entry requirements

Knowledge management and communication will focus on facilitating knowledge sharing across the four countries and knowledge sharing from the IFAD KOIFAWP project, to enable a faster operationalisation of project activities and greater impact. Knowledge sharing will be facilitated by an online platform (e.g. Facebook) where photos, videos and stories can be exchanged.

## Annex 13: FAO Project Document (for Component 3)

| | |
|---|---|
| **Proposal Title:** | Development of National Agricultural Investment Plans (NAIPs) |
| **Symbol:** | Will be inserted after internal review by FAO NFO-PSS; after the proposal has been submitted to project cycle inbox project-cycle@fao.org |
| **Geographical scope and Recipient Country(ies):** | The project covers four small Pacific Islands Countries, namely:<br>- Tuvalu<br>- Kiribati<br>- Federated States of Micronesia<br>- Republic of Marshall Islands |
| **Donor(s):** | Global Agriculture Food Security Program (GAFSP). The development of the NAIPs is part of the "Small Islands Food and Water Project" (SIFWaP). |
| **Government(s)/other counterpart(s):** | - Governments of Tuvalu, Kiribati, Federated States of Micronesia, Republic of Marshall Islands<br>- IFAD (IFAD and FAO are the supervising entities for SIFWaP). |
| **Expected EOD (Starting Date):** | 1. October 2021 |
| **Expected NTE (End Date):** | 31.December 2023 |
| **Contribution to FAO's Strategic Framework:** | Strategic Objective (SO) / Organizational Outcome (OO)<br>SO-1: Contribute to the eradication of hunger, food insecurity and malnutrition.<br>OO-1.4: Countries implemented effective policies, strategies and investment programmes to eradicate hunger, food insecurity and all forms of malnutrition by 2030.<br>SO-2: Make agriculture, forestry and fisheries more productive and sustainable.<br>OO-2.2: Countries developed or improved policies and governance mechanisms to address sustainable production, climate change and environmental degradation in agriculture, fisheries and forestry.<br>• Country Outcome(s): Sustainable increase in production and marketing of domestic agriculture products and healthy consumption of safe and nutritious food (CPF 2018-2022)<br>• Country Programming Framework(s) Output(s): Sustainable and climate-smart practices promoted to help build resilient agriculture, fisheries and forestry production systems<br>• Regional Initiative/Priority Area: FAO Hand-in –Hand Initiative which supports the development of investment plans for the agricultural sector in the Pacific Region |
| **Total Budget[63]:** | US$ 400,000 (four hundred thousand) |
| **Expected Product from FAO:** | Within the framework of the SIFWaP, FAO is responsible for the technical assistance and implementation support under Component 3 (Enabling Policy Framework). The final product will consist of:<br>1) Four National Agricultural Investment Plans (one for each participating country)<br>2) Various analytical background papers pertaining to the primary sector including (i) Policy Analysis (ii) Institutional Analysis, (iii) |

[63] Total Budget should not be higher than 1 million US$.

| | |
|---|---|
| | Economic, Import-, Export Analysis, (iv) Farming System Analysis, (v) Donor Mapping, etc. |
| **(Resource Partner Inputs) Insert Budget:** | - 5011: Professional Staff 143,860<br>- 5013: Consultants-Locally recruited 43,120<br>- 5021: Duty Travel Staff 35,608<br>- 5021: Travel Consultants National 39,602<br>- 5028: General Operating Expenses 137,810<br><br>Total Cost: 400,000 |
| **Strategy/Methodology/activities:** | The development of the four National Agricultural Investment Plans will be implemented through a ten step strategy outlined in Annex 1. The methodology builds on an Analytical Matrix which consist of five parts (Description of the status quo – current constraints – perceived opportunities– potential strategies & investment options – risks & mitigation options). Data collection will mainly focus around the topics listed in Annex 2. The NAIP development process involves (i) a review of existing material, (ii) consultations with a wide variety of stakeholders and key resource persons, (iii) field visits and multi-stakeholder workshops, and (iv) a peer review process.<br><br>Depending on availability of funds, the process may start in the second half of 2021 and will be finalized latest by mid-2023 (depending on the situation of the COVID-19 pandemic). |
| **Technical Oversight Arrangements:** | Technical oversight will be provided by Mr Anton Glaeser (Senior Rural Institutions Specialist, CFI) who will be the Lead Technical Officer of the project.<br><br>Technical assistance will be provided by FAO experts from the FAO Investment Centre, FAO's sub-regional, regional and headquarter offices. In addition, national consultants will be mobilized to collaborate with the FAO Team. |
| **Management Arrangements:** | FAO-SAP (located in Samoa) or FAO-Investment Centre will be the Budget Holder of the project.<br><br>As a supervising entity, FAO will implement the TA activities according to its procurement, financial, and management procedures and rules, in particular the M.S. 502 and M.S. 507 Manuals for goods and services delivery. Regarding the M&E and reporting, the TA project will comply both with FAO and GAFSP requirements. |

**Summary:**
The US$ 12 million multi-country project, funded through GAFSP) aims to improve food, nutrition and water security and enhance livelihood opportunities in the small island communities by investing in projects to address food, nutrition and water security at community, group or household level; sensitizing and enabling communities to diagnose, prioritize and implement activities to address food, nutrition and water security; and developing an enabling policy framework for addressing food, nutrition and water security.

The project consist of four components: (1) Community Engagement, (2) Investments in Food Nutrition and Water Security, (3) Project Enabling Policy Framework, and (4) Project Coordination and Management. Beneficiaries will include all households in the target communities. These include rural communities on outer islands as well semi-rural communities on the main/capital islands, who also rely heavily on subsistence agriculture and face many of the same challenges as fully rural farming households. The project will reach around 8,000 beneficiary households through 200 communities, corresponding to about 50,000 beneficiaries, approximately 17% of the population.

IFAD and FAO have been designated as the supervising entities, whereby FAO will specifically support Component 3 as spelled out in this project document. Other technical and supervisory assistance such as but not limited to the areas of food and nutrition security, sustainable, resilient and climate smart agriculture, farming and food systems, will be based on requests origination from IFAD and the participating governments.

**ANNEX 1: Detailed Strategy/Methodology/Activities:**

The development of the National Agricultural Investment Plans will be implemented in ten steps:

1. **STEP-1: Inception meetings.** FAO will meet with each of the national Counterpart Ministries and will (i) re-confirm the scope and structure of the technical assistance and the expected National Agricultural Investment Plans (NAIPs), and (ii) if necessary amend or fine-tune the approach and methodology. The Counterpart Ministries will assign a focal point person (FPP) to act as an interlocutor between FAO and the respective lead-Ministries. The FPP will assist FAO to access reports, policies, etc., arrange field trips, organize meetings with key resource persons and stakeholder workshops, and act as or organize translators in case of need.

   Outcome: Agreement reached on the NAIP's scope, structure and approach; government focal point person (interlocutor) identified; and a tentative work schedule agreed upon.

2. **STEP-2: Desk based diagnostic study.** Using an analytical matrix (Current Situation – Constraints – Opportunities – Strategies & Investments – Risks & Mitigation) FAO will conduct a desk study of the agriculture sector (including crops, livestock, in-shore fishing, aquaculture, and forestry), by reviewing available documents such as policies, sectoral strategies, project reports and statistics, to systematically collect information and data, including data in relation to climate change, social inclusion, youth, and food and nutrition security. Based on the desk study FAO in collaboration with the counterpart Ministries will be able to identify knowledge gaps which will be addressed during stakeholder consultations, targeted field missions and discussions with key institutions, organisations, governmental and non-governmental agencies and resource persons and groups.

   Outcome: A preliminary Analytical Matrix for each country plus a list of (i) identified knowledge gaps, and (ii) identified stakeholders, which will serve as an input for the next steps. The analytical matrix will capture national and as far as available localised information relating to individual island councils / local governments.

3. **STEP-3: Field-based data collection.** Based on discussion during the inception meeting and the desk-based document review FAO will engage national consultants who will conduct targeted field visits to selected islands in the respective countries. These field visits will generate data and information for a variety of topics such as farming systems, farmer organisations, availability of agricultural inputs, local trade and markets, etc. These consultants will also research specific topics such as institutional analysis, rural finance, etc. (see Annex 2 for more details).

   Outcome: The findings and data of these field visits will create valuable background documents to inform the formulation of the NAIPs.

   **Note:** Step 4, 5 and 6 consultations will be conducted on the Islands where the countries' capital cities are located. In addition FAO will organise additional field visits (see Step 6) to a number of islands (which have not been covered under Step 3) in order to visit and engage with local governments and/or Island Councils, farmers and other stakeholders engaged in the primary sector. The impacts of climate change and possible mitigation/adaptation measures, impacts of COVID-19, disaster risks, social inclusion and environmental issues will be addressed in all meetings as cross-cutting themes.

4. **STEP-4: Stakeholder Consultation – Government.** FAO will discuss with the respective ministries their current policies, strategic directions, and corporate plans, and will assess their institutional and organisational set-up and capacities in terms of organisational structure, role and functions of departments, human resources, budgetary allocations, infrastructure and equipment, outreach capabilities, and information technology. The discussions will also result in a list of other governmental

and non-governmental institutions, and agencies which are relevant for the development of the agricultural sector and hence important to be included in further consultations.

Outcome: Updated Analytical Matrix including governments' additional information and documentation of emerging strategic directions.

5. **STEP-5: Stakeholder Consultations – Non-Government.** FAO will conduct meetings with key resource persons which will include representatives from various Ministries, government and non-government agencies, development partners, private sector stakeholders, civil society organisations, producer organisations, farmer groups, women groups, youth groups, traders, etc. Outcome: Outcome: Updated Analytical Matrix including non-government actors' additional information and documentation of emerging strategic directions.
6. **STEP-6: Stakeholder Consultations – Field Visits.** Consultations with various stakeholders and visits to farmers and other actors in the area of agribusiness (including in-shore fishing and forestry) along relevant value chains will be conducted in selected islands / island groups. Semi-structured interviews and discussions about the status quo, their respective constraints, needs and opportunities as well as their respective proposed solutions will be recorded.

   Outcome: Outcome: Updated Analytical Matrix including 'local governments' and non-government actors' additional information and documentation of emerging strategic directions.

7. **STEP-7: NAIPs First Draft & Peer Review.** Based on the information and data collected during Steps 1-5, FAO will compile the first draft of the NAIP. During that period FAO will remain in contact with the respective Ministries' Focal Point Persons and other resource persons met during the consultations and field visits for availing any missing information or for any clarification. As soon as the first draft is finalized it will undergo an internal FAO/IFAD peer review. The reviewed and improved report will be submitted to the respective Ministries and the respective Ministries will organise the National NAIP Validation Workshops in collaboration with FAO.
8. **STEP-8: National NAIPs Validation Workshops.** These workshops will include a variety of participants (government, non-government, civil society, NGOs, private sector, etc.) and are intended to present the NAIPs' key findings and the future strategic direction and programs. Participants' comments and recommendations will be recorded and, if found feasible, included into the NAIP.
9. **STEP-9: NAIPs Final Draft.** Based on the recommendations and comments received, FAO will compile the final NAIP Draft and submit it to the respective partner Ministries.
10. **STEP-10: NAIPs ratified by Governments.** The respective partner Ministries will process the Final NAIPs in order to get them ratified by their respective governments.

| **ANNEX 2: Checklist for NAIP Data Collection** | |
|---|---|
| Policies, Strategies and Budgets | - Identify and collect all relevant policies, strategies and budget data<br>- Summarize key issues and identify gaps and areas for improvement |
| Agro-ecological zones and related farming systems | - Description of key agro-ecological zones including soil types/fertility, and the related farming systems in place; outline agriculture opportunity areas. |
| Climate and climate change impact on primary sector | - Description of climate patterns (dry season, rainy season, cyclone season etc.) and observed or anticipated impact of climate change on the primary sector. |
| Status of primary sector exports | - Major production areas of current and potential export commodities and their productivity<br>- Type of primary sector commodities exported (volume/value)<br>- Barriers to international trade |
| Status of primary sector imports | - Type of primary sector commodities imported (volume/value)<br>- Opportunities for import substitution |
| Agribusiness and trade | - List the major private stakeholders involved in agribusiness (processing, value addition, etc.) and trade available at the moment and indicate the commodities they are involved in<br>- Description of trade practices (incl. contract farming, etc.)<br>- Main trading partners (internationally) |
| Status of livestock sector | - Production systems of commercial livestock and their productivity<br>- Production areas where commercial livestock systems operate |
| Status of subsistence sector | - Major subsistence farming systems<br>(crops, livestock, in-shore fisheries, forestry) |
| Food and nutrition security and poverty levels | - Research for food security and nutrition data and distribution of the same per island<br>- Research for poverty statistics and distribution of poverty per island |
| Rural Institutions and Organisations | - Describe which institutions or organisations are engaged in the primary sector, specifically in relation to public or private (a) research (b) agricultural extension, (c) agriculture education and training (d) agricultural input supply, (e) mechanization, (f) storage and processing (g) domestic markets (h) exports, (i) laboratories (e.g. soil testing, food safety, entomology labs, veterinary labs, phytosanitary labs, etc.); (j) certification of organic produce, (k) meteorological services, etc. |
| Farmer Organisations / Cooperatives | - Type and number various farmer organisations; number of membership of the organization; performance of the organizations |

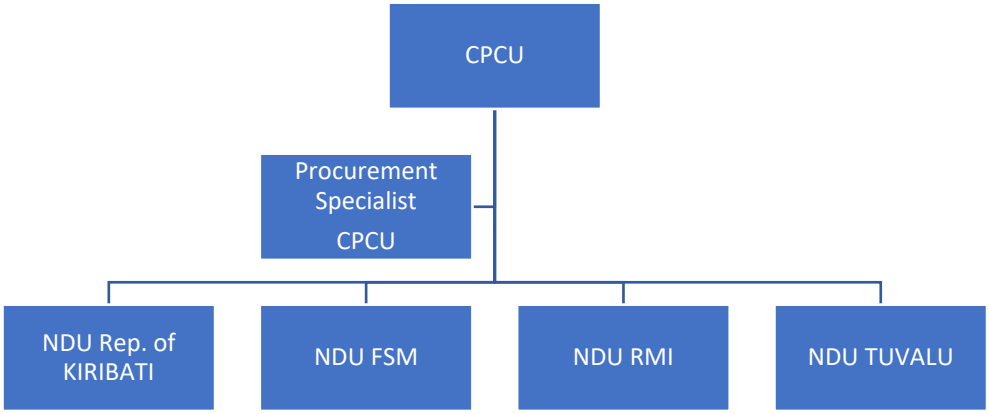
| | |
|---|---|
| | - Legal environment for the organizations & any government benefits for organisations |
| Ministry of Agriculture Institutional Analysis | - Organizational structure with all departments/divisons, etc.; Describe the roles of each department; Staffing level and education of staff;<br>- Assets (in terms of infrastructure and mobility in all provinces)<br>- Include Field Experimental Stations, Rural Training Centres, etc. in the analysis and indicate where they are and if they are functioning or not |
| Research and Extension | - Research facilities (physical and human resources); Off- and on-farm research capabilities<br>- Training facilities; extensionist/farmer ratio; Research-extension linkages; International relationships, etc. |
| Agriculture related infrastructure | - Describe current agricultural infrastructure (and its functionality) such as field access roads, access to wharfs and ports, warehouses, etc. |
| Agriculture inputs | - Availability of inputs for the primary sector (seeds, seedlings, agrochemicals, compost, fingerlings, animal breeds, one-day-old chicks, machinery and tools, etc.) |
| Irrigation and access to water | - Current status of irrigation (where, how many ha; used for what types of crops)<br>- Description of current use and regulation of access to water; |
| Status of Mechanisation | - Describe the current level of mechanization in relation to the major crops as well as to subsistence agriculture; |
| Access to Land and Land Management | - Current regulation for access to land<br>- How does the current land management effect the sector?<br>- What are the measures taken to improve access to land? |
| Rural Finance and Credit | - Description of current access to finance options/conditions<br>- Percentage of farmers accessing finance |
| Provincial Constraints and Development Opportunities | - Based on the consultations compile a fact sheet in the form of a 2 page summary of each province in terms (i) key agricultural characteristics, (ii) agricultural constraints, (iii) development opportunities/priorities, (iv) risks and mitigation options |
| Ongoing Pipeline Government and ODA Support | - Create a donor matrix (who is doing what and where) in relation to the primary sector<br>- Establish if there is a coordinating body for aligning ODA assistance to national priorities |

**Annex 14: Procurement Assessment**

Procurement of goods, works and services shall be carried out in accordance with the provisions of the Procurement Regulations and its implementation arrangements which also includes the use of e-procurement systems if in the country available, to the extent such are consistent with the IFAD Project Procurement Guidelines. Each AWPB must contain a Procurement Plan, which shall identify procedures which must be implemented by the Recipient in order to ensure consistency with the IFAD Project Procurement Guidelines.

The NDUs will delegate procurement authority to NGO(s) to conduct simple procurement goods and shall prepare Procurement Plan which is an integral part of AWPB and includes information on the types of goods/works/consulting services to be procured, procuring agency/unit, methods of procurement, costs, schedules and IFAD's review requirement. The timely implementation of procurement activities is essential to avoid delays with Programme implementation.

There will be full time procurement specialist in CPCU who will fully assist and make coordination on day-to-day procurement monitoring process and administration as well function as backstopping for 4 NDUs in 4 countries. The illustration as per below:




The Procurement Plan will be approved by NDUs in each of the countries under supervisory of CPCU procurement specialist and submit to CPCU prior submitted to IFAD for review and "No Objection" along with the AWPB each year. The first year of the Procurement Plan should include procurement of goods and services for 18 (eighteen) months, then to be updated any time as required.

The Procurement Plan which shall include as a minimum:

1. A brief description of each procurement activity to be undertaken during the period by each and every Programme party;
2. The estimated value of each procurement activity;
3. The method of procurement or selection to be adopted for each activity; and
4. An indication as to whether shall carry out prior or post review by IFAD in respect of each and every procurement activity.

Amendments to the Procurement Plan shall be subject to the IFAD "No Objection". Format of the Procurement Plan is referenced www.ifad.org/project-procurement. The more detail on the information on will be available in Project Implementation Manual (PIM). IFAD will undertake to review the provisions for the procurement of goods, works and

services to ensure that the procurement process is carried out in conformity with its Procurement Guidelines. For the purposes of IFAD's Procurement Guidelines, the following procurement decisions shall be subject to prior review by the IFAD for the award of any contract for goods, equipment, materials, works, consultancy and services under the Project:

a. Procurement of goods, materials and works

   i. Prequalification documents and shortlist when prequalification is undertaken;

   ii. Bid documents for goods, materials and works;

   iii. Evaluation report and Recommendation for Award; and

   iv. Contract and amendments.

b. Procurement of consultancy services and other services

   i. Prequalification documents and shortlist when prequalification is undertaken;

   ii. Request for Proposal;

   iii. Technical evaluation report;

   iv. Combined (technical and financial) evaluation report and the recommendation for award; and

   v. Contract and amendments.

c. Procurement of individuals consultants

   i. The terms of reference of the assignment

   ii. The evaluation report and recommendation for selection

   iii. Contract and amendments

The following procurement methods are recommended:

a. Works and associated non-consultancy services

   I. National Competitive Bidding (NCB): applies to all contract valued over US$ 100,000.

   II. National Shopping (Request for Quotations): applies to contracts valued over US$ 5,000 equivalent up to and including US$ 100,000 equivalent; and

   III. Direct Contracting: applies to contracts valued up to and including US$ 5,000 equivalent.

b. Goods and associated non-consultancy services

   I. National Competitive Bidding (NCB): applies to all contract valued over US$ 100,000

   II. National Shopping (Request for Quotations): applies to contracts valued over US$ 5000 equivalent up to and including US$ 100,000 equivalent; and

   III. Direct Contracting: applies to contracts valued up to and including US$ 5,000 equivalent.

c. Consulting Services.

   The Quality and Cost Based Selection will be the standard (or "default") method for the selection of consulting services applied; however, the project could propose the use of other competitive procurement methods for consultancy service such as

Fixed Budget Selection (FBS); Least Cost Selection (LCS): Consultants Qualification Selection (CQS) and Individual Consultant Selection (ICS) applies to contracts with individuals regardless of the value. The following processes will apply:

(i) Request for Proposal (Internationally)– for contracts with a valued over US$ 200000 equivalent; and

(ii) Request for Proposal (Nationally) - for contracts with a valued up to and including US$ 200000 equivalent:

(iii) Sole/Single Source Selection (SSS): might be applied to contracts valued up to US$ 15000 equivalent. SSS might also be applied to contracts valued above US$ 15000 with due justification in exceptional cases such as: (a) tasks that are a continuation of previous work that the consultant has carried out and for which the consultant was selected competitively; (b) assignments lasting less than six months; (c) emergency situations resulting from natural disasters; and (d) when the consultant is the only consultant qualified for the assignment(as mentioned in the handbook), subject to prior review; and

(iv) Sole/Single Source Selection (SSS): applies to all contracts with individuals estimated to cost US$ 15000 or less or with a contract duration of three months or less

Other Procurement Methods or Arrangements:

(i) The use of Force Account is *not allowed*.

(ii) Extensions of contracts funded by IFAD for Goods, Works or related Non-Consulting Services may not exceed 10% of the contract value and shall be subject to IFAD's NO.

(i) Procurement with Community Participation is allowed.

(ii) The borrower/recipient shall adopt and use the Standard Procurement Documents issued by National Authorities as long as the latter are supplemented/adapted to meet IFAD's SECAP standards and grievance mechanisms and the IFAD's Project Procurement Guidelines and IFAD Procurement Handbook.

| Procurement Method | Prior or Post | Comments |
|---|---|---|
| **Procurement of Goods, Works and Services (non-consulting)** | | |
| NCB | Prior | All contracts valued over US$ 100000 while contracts below this value would be subject to post review. |
| Shopping | Post | All contracts |
| Direct Goods | Post | All contracts below US$ 15000 for goods and US$ 5000 works. Direct contract above the prescribed threshold is subject to IFAD prior reviews\ |
| **Recruitment of Consulting Firms** | | |

| | | |
|---|---|---|
| Quality and Cost-Based Selection (QCBS); Fixed Budget Selection (FBS); Least Cost Selection (LCS); Selection Based on Consultants Qualification (CQS) | Prior | All contracts valued US$ 100000 and above while contracts below this value would be subject to post review |
| **Recruitment of Individual Consultants** | | |
| Individual Consultants | Prior | All contracts valued above US$ 25000 while contracts below this value would be subject to post review |

The aforementioned thresholds may be modified by IFAD during the course of Project implementation.

Requests for IFAD prior review and no objection, should be routed through NOTUS ("No Objection Tracking Utility System (NOTUS)". The No Objection Tracking Utility System (NOTUS) as an integrated system in IFAD Client Portal (ICP) enforces a step-by-step documentation of the workflow for the process for the entire procurement process (expression of interest, IFAD No-Objection, to contract signature) according to the type (e.g. national competitive bidding, international competitive bidding) and object of procurement (e.g. civil works, goods, services). NOTUS also has function as tracking system for non-procurement workflow (e.g. Project Implementation Manual-PIM).

All contracts must be listed in the Register of Contracts, which should be updated and submitted to the IFAD Country Programme Manager on a monthly basis. The sample form to be used and instructions are detailed in PIM

Consolidated Procurement risk for SIFWaP project overall for all 4 islands countries are moderate to high risk. The remote geographical location for those pacific countries makes the implementation of procurement life cycle is challenging, in addition most of the 4-country procurement system could not accommodate complex procurement process to meet with procurement principles and policy. The previous experience in the most pacific country adapts or harmonizes with donor/ IFIs procurement system. As explained more detail in annex 9 for each Procurement Risk Matrix IFAD will provide continues support to mitigate the procurement risk, together with each country procurement system when available.


Strength
Establishes combination of decentralized and centralized system (decentralized for small or routine procurement and centralized for large or selected goods, works and services)
Most of the 4 small countries has own
Weakness
Lack of Procurement Monitoring System.
Lack of transparent of public procurement Information
National Public Procurement system design for very simple procurement method
Opportunitie
All countries in Pacific Region have received sustainable training for procurement practitioners as a requirement to improve public procurement system and most of them have sought for an overall assessment of their country's public procurement system and have E-Procurement
Most of the supplier for goods are from overseas (imported) out from the island's country.
The Service provider/ consultant is limited and mostly from overseas.
The domestic product could not compete