



**Pacific Community (SPC)**

**Government of the Federated States of Micronesia**

**GLOBAL CLIMATE CHANGE ALLIANCE PLUS:  
SCALING UP PACIFIC ADAPTATION (GCCA+ SUPA) PROJECT**

**PROJECT DESIGN DOCUMENT**

**Output 3**

**Scaling up community resilience to water stress and  
climate-related extreme events in Chuuk State, FSM**

**May 2020**

## **Scaling up community resilience to water stress and climate-related extreme events in Chuuk State, FSM**

### **Project Summary**

This design document describes the framework for the Federated States of Micronesia's (FSM's) activities under Output 3 "Scale up resilient development measures in specific sectors" of the Global Climate Change Alliance Plus - Scaling up Pacific Adaptation (GCCA+ SUPA) Project. The Output 3 activities, described here for FSM, will be implemented in conjunction with related activities under Output 1 "Strengthen strategic planning at national levels" and Output 2 "Enhance the capacity of sub-national government stakeholders to build resilient communities" of the GCCA+ SUPA project.

The Government of FSM has selected the water sector as their focus for Output 3. The overall objective of the project is to scale up community resilience to water stress and climate-related extreme events in selected outer islands of Chuuk State. The specific objective is to improve water security by increasing access to potable water for schools and selected households in the atoll islands of Polowat, Pulusuk and Pulap. The project has three key result areas: (1) Install and enhance rainwater harvesting systems in community shelters/buildings in Polowat, Pulusuk and Pulap; (2) Training and capacity building in rainfall data management in Polowat and water management for households and schools in Polowat, Pulusuk and Pulap; and (3) National coordination of the project activities.

In Chuuk State, access to potable water is limited particularly for its atoll island communities where households rely heavily on rainwater catchments and groundwater wells for their supply of water. The provision and enhancement of water storage systems to vulnerable communities is an ongoing effort by the FSM government to combat water insecurity and enhance community resilience during weather hazards such as typhoons and droughts that exacerbate water issues.

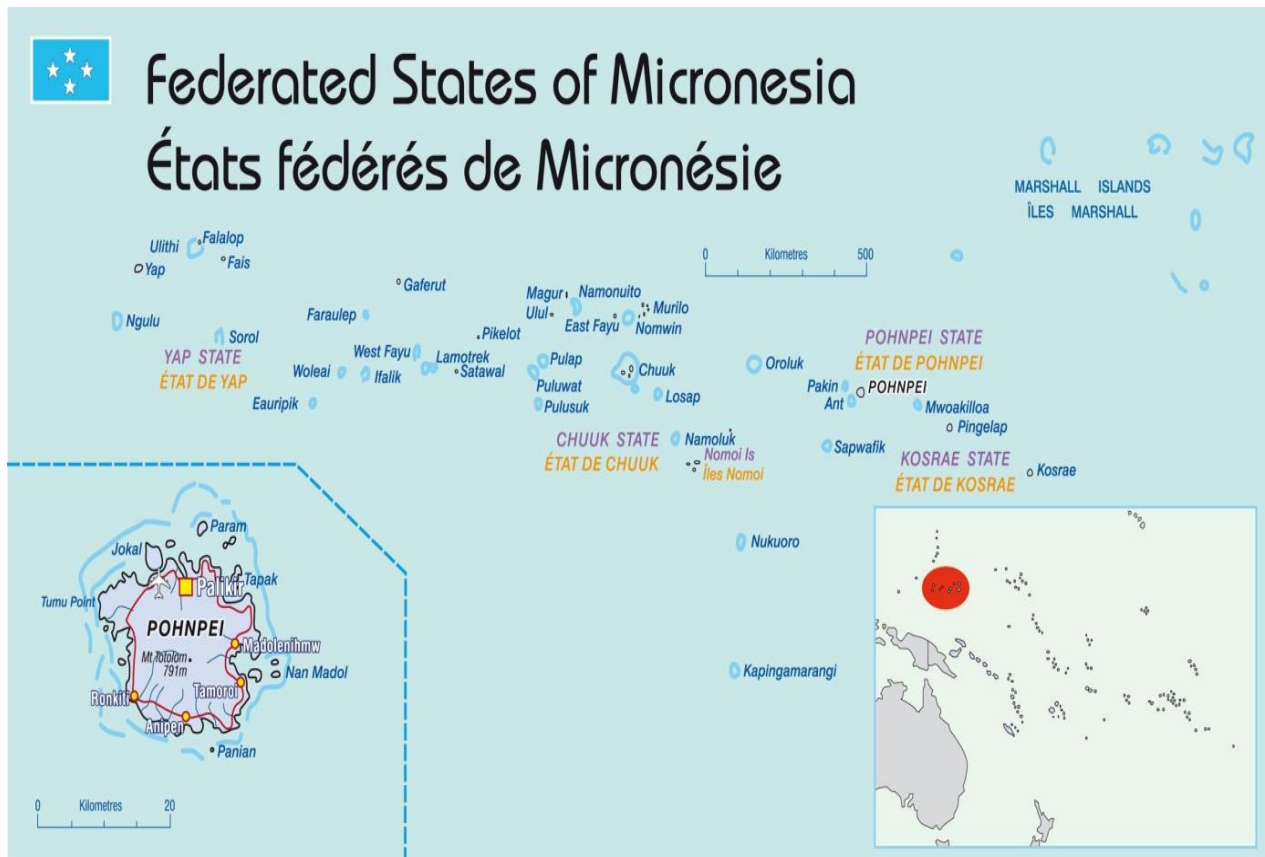
The project will incorporate a holistic approach, directly benefiting 3,029 people, and involving departments responsible for water, environment, disaster and emergency, health and sanitation, transportation, marine resources, women and the communities of Polowat, Pulusuk and Pulap. The project is about enhancing the resilience of people and communities, hence a people-centred approach is adopted throughout the design and implementation. A consultation to inform this Project Design Document was held virtually within the months of March and April 2020.

In general, the project will firstly perform rapid assessments and community consultations on selected islands to obtain the present situations surrounding the water supply systems on the three islands. The assessments and consultations will help inform the selection of the community shelters/buildings where the project will install and upgrade rainwater harvesting systems. The assessments will also guide the development of a train-the-trainer programme on water monitoring, treatment and maintenance of rainwater harvesting systems to be implemented to key trainers on the three islands. To enhance water management at school, the project will deliver WASH programmes to schools on the three islands.

The project will also install a rain gauge in Polowat to improve community preparedness for droughts. The data from the rain gauge is envisaged to represent the three islands. Training will be provided to the locals on how to collect, interpret and manage data from the rain gauge.

The implementation period of this project will commence on the date of signature of this Project Design Document and end on 31 December 2022. The project will be implemented by the Environment Protection Agency in Chuuk in collaboration with the Chuuk Water Steering Committee. The project is consistent with the Chuuk Joint Strategic Action Plan on Disaster Risk Management (2018) and the Nation-Wide Integrated Disaster Risk Management and Climate Change Policy (2013) which identified water security as key strategic outcomes.

# Map of FSM



## List of Abbreviations

ACSE	Adapting to Climate Change and Sustainable Energy
ACP	Asian Caribbean Pacific
BRSP	Building Safety and Resilience in the Pacific
CSIRO	Commonwealth Scientific, Industrial Research Organisation (Australia)
COVID-19	Corona Virus Disease 2019
DECEM	Department of Environment, Climate Change and Emergency Response
EPA	Environment Protection Agency
EU	European Union
EUR	Euros
FRDP	Framework for Resilient Development in the Pacific
FSM	Federated States of Micronesia
GCCA: PSIS	Global Climate Change Alliance: Pacific Small Island States project
GCCA+SUPA	Global Climate Change Alliance Plus: Scaling Up Pacific Adaptation
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GoFSM	Government of FSM
IOM	International Organization for Migration
ISAAC	Institutional Strengthening in Pacific Countries to Adapt to Climate Change
KRA	Key result area
LoA	Letter of Agreement
PacRES	Pacific Adaptation to Climate Change and Resilience Building
PAP	Pacific Adaptation Project
PIC	Pacific Island Countries
RENI	Readiness for El Nino
RMI	Republic of the Marshall Islands
SDG	Sustainable Development Goals
SPC	Pacific Community
SPC-GEM	Pacific Community - Geoscience, Energy and Maritime Division
SPREP	Secretariat of the Pacific Regional Environment Programme
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
USP	University of the South Pacific
WASH	Water, Sanitation and Hygiene

## Table of Contents

Project Summary.....	2
Map of FSM.....	3
List of Abbreviations .....	4
Signature Page .....	6
<b>1. INTRODUCTION .....</b>	<b>7</b>
Background to FSM.....	7
<i>Geographical and Economic Setting .....</i>	<i>7</i>
<i>Vulnerability and Climate Change Projections for FSM.....</i>	<i>7</i>
<i>National and State Policies and Strategies .....</i>	<i>8</i>
<i>Related Projects and Activities .....</i>	<i>8</i>
About the GCCA+ SUPA Project.....	9
<i>Description of the overall GCCA+ SUPA project .....</i>	<i>9</i>
<i>The GCCA+ SUPA project in FSM – Scaling up community resilience to water stress and climate related events in Chuuk State .....</i>	<i>10</i>
<i>Rationale .....</i>	<i>11</i>
<b>2. PROJECT SELECTION PROCESS.....</b>	<b>12</b>
<b>3. DETAILED PROJECT DESCRIPTION .....</b>	<b>12</b>
Overall Objective .....	12
Specific Objective.....	12
Key Result Areas .....	12
KRA 1: Install and enhance rainwater harvesting systems in community shelters/buildings in Polowat, Pulusuk and Pulap.....	12
KRA 2: Training and capacity building in rainfall data management in Polowat and water management for households and schools in Polowat, Pulap and Pulusuk .....	14
KRA 3: National coordination of the project activities .....	15
<b>4. INSTITUTIONAL ARRANGEMENTS, RISK MANAGEMENT AND EXIT STRATEGY 16</b>	<b>16</b>
Institutional Arrangements.....	16
Risk Management .....	17
Exit Strategy.....	18
Annex 1: Indicative Logframe Matrix GCCA+ SUPA Activities in FSM .....	19
Annex 2: Budget and Payment Schedule.....	24
Annex 3: Schedule of activities .....	27

**Signature Page**

The contents of this Project Design Document are endorsed by:

**For Department of Environment, Climate Change and Emergency Management**

Name & Position	Signature	Date

**For Environment Protection Agency Chuuk**

Name & Position	Signature	Date

**For Pacific Community**

Name & Position	Signature	Date

*All parties signed by 14/05/20*

## 1. INTRODUCTION

This design document describes the framework for FSM's activities under Output 3 "Scale up resilient development measures in specific sectors" of the Global Climate Change Alliance Plus - Scaling Up Pacific Adaptation (GCCA+ SUPA) Project. The Output 3 activities, described here for FSM, will be implemented in conjunction with related activities under Output 1 "Strengthen strategic planning at national levels" and Output 2 "Enhance the capacity of sub-national government stakeholders to build resilient communities" of the GCCA+ SUPA project. The government of FSM has selected the water sector as their focus for Output 3.

This section of the design document describes the background to FSM and the background to the SUPA Project.

### **Background to FSM**

#### ***Geographical and Economic Setting***

The FSM is a group of 607 islands in the western Pacific Ocean with a total land area of 701km<sup>2</sup> spanning over an exclusive economic zone of 2,980,000km<sup>2</sup>. These islands vary in size from small islets that submerge at high tide to coral atolls and large volcanic islands. The country consists of four states: Chuuk, Kosrae, Pohnpei and Yap, with each having a substantial degree of autonomy. The FSM has a total population of 105,300 (2018 est) with Chuuk State being the most populous at 48,654 (47% of the country's total population). Chuuk State is comprised of 85 islets with a considerable number of low-lying inhabited atolls.

The country's economy is highly vulnerable to climate change and this is exacerbated by the series of extreme weather events that the country experiences on an annual basis. A narrow-based employment is present in FSM resulting in the relatively high rate of unemployment. While an increasing number of the population are engaged in the informal sector such as agricultural and fishing activities, these are threatened by the adverse impacts of climate change.

#### ***Vulnerability and Climate Change Projections for FSM***

Climate projections for FSM based on the global climate models show that for the period to 2100:

- There is *very high confidence* in the direction of long-term change in several key climate variables, namely an increase in annual mean and extremely high daily temperatures, sea level, ocean acidification and coral bleaching. There is also a *high confidence* in the continued occurrence of El Niño and La Niña events, but the degree of intensity and frequency is uncertain.
- There is *high confidence* that the frequency of extreme rainfall will increase.
- There is *medium confidence* that the average annual rainfall will increase and the frequency for drought will decrease.
- There is *low confidence* that within the months of December-March wave height will decrease and in June-September waves will be more directed from the south.

(These climate projections are based on the 2014 Australian Bureau of Meteorology and CSIRO Report: Climate variability, extremes and changes in the Western Tropical Pacific: New science and updated country reports).

These changes in climate are foreseen to exacerbate water security issues in FSM.

### ***National and State Policies and Strategies***

Climate change resilience, water security and disaster risk management are amongst the key priorities for FSM. The national plans and policies are administered by the FSM national government and the state plans and policies are administered by each respective state by their respective executive and legislative bodies. Among the key national and state plans and policies are the following:

- National Strategic Development Plan (2004-2023) which is the overarching national policy recognizes the mainstreaming of climate change into sectoral policies and plans, and management of freshwater amongst its strategic goals.
- Nation Wide Integrated Disaster Risk Management and Climate Change Policy (2013) integrates water security, disaster risk management and climate change adaptation amongst its key strategic objectives and outcomes.
- Framework National Water and Sanitation Policy (2011) strives to ensure that the right to access safe and clean drinking water is met for the people of the FSM.
- Multi-State Multi-Hazard Mitigation Plan (2005) aims, amongst its goals, to build and support local capacity and commitment to become less vulnerable to hazards.
- Chuuk State Disaster Management Plan and Operation Procedures (2015) outlines the roles and responsibilities for disaster management and response.
- Chuuk Joint State Action Plan for Disaster Risk Management and Climate Change lists ‘Ensure water security for Chuuk as one of its key objectives. The objective include activities such as i) the drafting policies for water resources management and safe drinking water specific for Chuuk’s outer islands; ii) improve designs for water resources and catchments; iii) install water tanks in outer islands; and iv) education and awareness on water conservation.

### ***Related Projects and Activities***

Listed below are some water security related projects and activities that are presently ongoing in FSM:

Project Title	Description	Status
The EU-North Pacific-Readiness for El Niño (RENI) Project (2017-2020)	Works with communities to secure food and water resources ahead of drought	Ongoing
Intra-ACP GCCA+ Pacific Adaptation to Climate Change and Resilience Building (PacRES) (2018-2022)	Aims to increase the resilience of the Pacific ACP countries to climate change and achieve the UN’s SDG 13	Ongoing
EU Adapting to Climate Change and Sustainable Energy (ACSE) (2014-2020)	Aims to improve climate change adaptation, reduce country resilience on fossil fuels and enhance capacity building	Ongoing
Pacific Adaptation Project (PAP): Institutional Strengthening in Pacific Countries to Adapt to Climate	The goal is to strengthen the national institutional capacity of Pacific Island Countries (PICS) to effectively plan for, coordinate and respond to the adverse impacts of climate change.	Closing stages



Change (ISAAC) (2015-2020)		
ACP-EU Building Safety and Resilience in the Pacific (BRSP) (2013-2019)	Mainstreams disaster risk reduction/climate change adaptation at the national and regional levels.	Ongoing
Adaptation Fund on Water Security and Coastal Management	Aims to help island communities reduce vulnerability to extreme drought, sea level rise and other climate risks	Ongoing

## About the GCCA+ SUPA Project

### *Description of the overall GCCA+ SUPA project*

Climate change and natural disasters are among the greatest challenges jeopardising and undermining the ability of all countries, in particular Pacific countries, to achieve the sustainable development goals and reduce poverty. The GCCA+ SUPA project falls under the GCCA+ flagship initiative, which has three priorities: (i) mainstreaming climate change issues into poverty reduction and development efforts; (ii) increasing resilience to climate-related stresses and shocks; and (iii) supporting the formulation and implementation of concrete and integrated sector-based climate change adaptation and mitigation strategies.

The GCCA+ SUPA project is about scaling up climate change adaptation measures in specific sectors supported by knowledge management and capacity building. The 4.5-year project (2019 – 2023) is funded with EUR14.89 million from the European Union (EU) and implemented by the Pacific Community (SPC) in partnership with the Secretariat of the Pacific Regional Environment Programme (SPREP) and The University of the South Pacific (USP) in collaboration with the governments and peoples of Cook Islands, Federated States of Micronesia (FSM), Fiji, Kiribati, Republic of the Marshall Islands (RMI), Nauru, Niue, Palau, Tonga and Tuvalu.

The overall objective is to enhance climate change adaptation and resilience within ten Pacific Island countries. The specific objective is to strengthen the implementation of sector-based, but integrated, climate change and disaster risk management strategies and plans.

The three key outputs for the GCCA+ SUPA project are:

1. Strengthen strategic planning at national levels;
2. Enhance the capacity of sub-national government stakeholders to build resilient communities; and
3. Scale up resilient development measures in specific sectors.

The activities will adopt a people-centred approach<sup>1</sup> throughout and will take into account lessons learnt and wise practices from the regional, national, sub-national and community-based projects and programmes implemented over the last decade.

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<sup>1</sup> SPC has adopted a people-centred approach which incorporates human rights, gender equality, social inclusion, environmental sustainability and culture. It places people at the centre of planning, implementation, decisions, monitoring and reporting.

The Action will contribute to the *Framework for Resilient Development in the Pacific (FRDP)*, the *Sendai Framework for Disaster Risk Reduction*, the *Paris Agreement to the United Nations Framework Convention on Climate Change (UNFCCC)*, and the *Sustainable Development Goals*, especially Goal 1: no poverty, Goal 2: zero hunger, Goal 3: good health and well-being, Goal 4: quality education, Goal 5: gender equality, Goal 6: clean water and sanitation and Goal 13: climate action and Goal 14: life below water.

***The GCCA+ SUPA project in FSM – Scaling up community resilience to water stress and climate related events in Chuuk State***

The GCCA+ SUPA project in FSM will scale up several past and ongoing project interventions related to water security, disaster risk management and water sanitation and hygiene.

Firstly, Chuuk’s “Enhancing safe access to quality water” project was implemented in two of the state’s lagoon islands and involved the installation of water storage tanks, education and awareness raising on water management, disaster preparedness and water quality monitoring and testing on two outer islands of Chuuk. The GCCA+SUPA will replicate these activities to at most three Northwest islands of Chuuk, namely Polowat, Pulusuk and Pulap. Secondly, the GCCA+ SUPA will build upon specific water security interventions from the Adaptation Fund: “Enhancing the Climate Change Resilience of Vulnerable Island Communities in the FSM project” by installing and upgrading rainwater harvesting systems on community shelters on the three Northwest Islands aforementioned. Thirdly, the Ministry of Education in Chuuk is currently implementing the WASH programme to schools in the State promoting education and awareness on water management and hygiene. The GCCA+SUPA will scale up the effort by the Ministry of Education through the replication of the WASH activities to schools in Polowat, Pulusuk and Pulap.

Lessons learnt from other water security projects implemented in outer islands of FSM will be applied, in particular from Fais Island, Yap State, where water security measures were implemented between 2012 and 2015 by the Global Climate Change Alliance: Pacific Small Island States (GCCA: PSIS) project, and from Kapingamarangi, Pohnpei State, where water security measures were implemented in 2019 by the RENI project. Reference will also be made to a community impact assessment for the Fais Island water security measures that was conducted four years after the project ended in 2019.

The GCCA+SUPA project will focus on strengthening existing rainwater harvesting systems for selected community shelters where possible and install new systems at selected shelters where rainwater harvesting systems are absent. Community shelters are community properties and therefore the installation of water harvesting systems at the shelters will ensure the equal access and distribution of potable water to all members of the communities.

The first Key Result Area (KRA1) of the project will see the selection of the community shelters and the installation of the rainwater harvesting systems in the three Northwest islands at most. Under this KRA the arrangement for the sustainable use, management and maintenance of the water systems will be agreed upon by the community members and the Chuuk government through a Letter of Agreement.

The second KRA focuses on training and capacity building and will involve the development and implementation of the train-the-trainer programme that focuses on water monitoring and

treatment and maintenance of household rainwater harvesting systems. The training will be implemented for trainers in Polowat, Pulusuk and Pulap. The Ministry of Education WASH Programme is encompassed in this KRA also and the GCCA+SUPA will deliver the programme to schools in the three islands.

KRA2 extends to improving community capacity to record and manage rainfall data. A basic rainfall gauge recommended by the Weather Office in Chuuk will be purchased and installed by the project in Polowat and persons from the school and community will be provided with a training on the use and management of the gauge as well as data collection. The rainfall data in Polowat are expected to represent those for Pulusuk and Pulap. Understanding rainfall patterns will improve community preparedness for extreme weather events like drought.

The project overall will directly benefit 3,029 people across the three atoll islands. The population figures are sourced from the 2010 Chuuk Population Count:

<b>Municipality</b>	<b>Total Population</b>	<b>Direct Beneficiaries</b>
Pulusuk	1,116	1,116
Polowat	745	745
Pulap	1,168	1,168
<b>Total</b>	<b>3,029</b>	<b>3,029</b>

### ***Rationale***

Based on the foregoing, the justification and rationale for the GCCA+ SUPA project in FSM is as follows:

- The sector selected by FSM is one of the five sectors identified in the EU Delegation Agreement as priority sectors needing scaling up interventions for the GCCA+ SUPA project.
- The identified scaling up measure is an effective and tested measure that has elements of sustainability and can be implemented within the timeframe of the GCCA+ SUPA project.
- The selected scaled up measure has socio-economic benefits for the communities and can be implemented using an evidence-based, people-centred approach.
- The selected scaled up measure fits within the scope of the GCCA+ SUPA project budget.
- The government of FSM, through its national and state policies, strategies and plans, places a high priority on water security and disaster risk management.
- Fully installing the rainwater harvesting systems will contribute to an increase in the number of people having access to quality water particularly in times of drought which Chuuk islands are prone to.
- Future projections for climate changes show a very high confidence in the continued occurrence of El Niño and La Niña events as well as the increase in extremely high temperatures, sea level and ocean acidification. These projected changes will continue to increase the vulnerability of people living in the low-lying atolls in FSM where freshwater is scarce.

- Adopting a people-centred approach will ensure that the principles of equality and equity are provided to all rights holders in FSM.

## **2. PROJECT SELECTION PROCESS**

This section provides a timeline of the planning activities that have led to this Project Design Document. Activities are listed below in chronological order.

*March 2019:* The representative for FSM attended the GCCA+ SUPA Planning and Inception Meeting, 4-6 March 2019, in Suva and contributed to the development of the draft criteria for scaling up climate change adaptation interventions under Output 3 of the project.

*May 2019:* The water sector was selected as project focus following an in-country consultation meeting held in Pohnpei between the GCCA+SUPA team (including USP) and the Department of Climate Change and Emergency Management (DECEM).

*January 2020:* Chuuk State was selected as the geographical location of the project. The selection process was done through discussions with States and networking spearheaded by the DECEM.

*February 2020:* A draft concept note submitted from FSM which detailed three Northwest Islands of Chuuk as project sites and the KRAs for the project. The concept note was submitted to EU and approved.

*March-April 2020:* Two teleconference meeting were held between DECEM, EPA Chuuk and SPC on the project design document and the specific activities to be included, the tentative budget and timeframe. Due to COVID-19 travel bans and national lockdowns, in-country consultations were not possible.

*April 2020:* A draft project design document was prepared and distributed.

## **3. DETAILED PROJECT DESCRIPTION**

This section describes the overall objective, specific objective and key result areas, as well as the logical framework that is used to monitor progress. The section also includes the project budget and the schedule.

### **Overall Objective**

The overall objective is: Scaling up community resilience to water stress and climate-related extreme events in selected outer islands of Chuuk State.

### **Specific Objective**

The specific objective is: Improve water security by increasing safe access to quality water to selected communities, schools and households in Polowat, Pulusuk and Pulap.

### **Key Result Areas**

**KRA 1: Install and enhance rainwater harvesting systems in community shelters/buildings in Polowat, Pulusuk and Pulap**

Access to safe drinking water is limited in Chuuk, particularly in the island communities. In atoll low-lying islands like Polowat, Pulap and Pulusuk the communities are fully dependent on rainwater and groundwater for their supply of freshwater. The islands are often exposed to extreme weather events such as typhoon and droughts. In order to harvest and stock water in rainy seasons, rainwater catchments become highly essential. Past interventions involving the installation of water storage tanks in atoll communities in Chuuk has proven successful in terms of providing safe access to quality water, particularly in times of droughts and typhoons where groundwater contamination is eminent.

### *1.1 Assessment of existing water storage systems in community shelters/buildings in Polowat, Pulap and Pulusuk*

The GCCA+ SUPA project will work with the EPA Chuuk and the Water Steering Committee<sup>2</sup> in Chuuk to inspect and update data on the existing water storage systems in Polowat, Pulap and Pulusuk. It is envisaged that the findings from the inspection and data collection will not only inform the selection of water storage systems to be scaled up but also produce a holistic outlook on the status and issues around safe water access for the communities of Polowat, Pulap and Pulusuk

### *1.2 Community consultations in Polowat, Pulap and Pulusuk*

The GCCA+ SUPA together with the EPA Chuuk and the representatives of the Water Steering Committee will conduct community consultations with the local communities of the three islands alongside the assessments in Activity 1.1. The basis of the consultation is to inform the community members of the GCCA+SUPA project and its objectives/intended activities on the island as well as to understand their needs, seek their inputs, support and participation in the project.

### *1.3 Selection of community water storage systems for scaling up in Polowat, Pulap and Pulusuk.*

The outcomes of Activity 1.1 and Activity 1.2 will inform the selection of the community shelters/buildings where the water harvesting systems will be installed and/or upgraded. In consultation with the GCCA+SUPA team, the EPA Chuuk, together with communities of the three islands will perform the selection and endorsement process.

### *1.4 Establish a Letter of Agreement with the local governments and community leaders in Polowat, Pulap and Pulusuk to cover management and maintenance of community water harvesting systems.*

The EPA Chuuk will work with the local leaders of the three islands to develop and agree on the Letter of Agreement (LoA) for the community water harvesting systems. The LoA should

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<sup>2</sup>A multi-disciplinary committee comprised of representatives from the Environment Protection Agency, Disaster Operation and Emergency Office, Department of Marine Resources, Chuuk Women Council, Department of Health and Sanitation, Department of Transportation, and Chuuk Public Utilities Cooperation.

entail specific management and maintenance responsibilities for the water systems with a responsible authority/community/household/leader designated under each duty. Additionally, the LoA should append a programme of work for maintenance duties.

*1.5 Complete the design of the water harvesting systems, material specifications and a full description of work.*

Together with the EPA Chuuk, the Project Engineer will design the rainwater harvesting system for each community shelter/building selected. This will include a list of materials needed, the specifications and a full description of the works. The designs for each installation should be completed by June 2021.

*1.6 Procure, purchase and install community rainwater harvesting systems in Polowat, Pulap and Pulusuk*

It is envisaged that the contractors, under the guidance of the engineer, the EPA Chuuk and the Water Steering Committee, will complete the installation works with the assistance of the communities.

*1.7 Maintenance training to skilled members of the Polowat, Pulap and Pulusuk community, and the provision of maintenance materials*

Skilled members of the communities will be identified by the local leaders and participate in hands-on up-skill trainings on the maintenance of the rainwater harvesting systems. Basic tools required for maintenance will be provided.

**KRA 2: Training and capacity building in rainfall data management in Polowat and water management for households and schools in Polowat, Pulap and Pulusuk**

*2.1 Rapid Assessment of household and school water storage systems in Polowat, Pulap and Pulusuk.*

The EPA Chuuk, together with the National Coordinator, will conduct a rapid assessment to stock-take the available rainwater storage systems in the three islands. The findings from the assessment are envisaged to inform the design of Activity 2.2.

*2.2 Preparation of a training programme in the monitoring, treatment and maintenance of household and school rainwater harvesting systems using a “train the trainer” approach*

The GCCA+ SUPA team in Suva will work with the EPA Chuuk and the Water Steering Committee to draw up a training programme for the “train the trainer” training to be conducted in the three islands. The training should enable the trainers to conduct basic water monitoring and treatment and maintenance of water harvesting systems to household members and school teachers.

*2.3 Delivery of the training programme to key trainers and community members in Polowat, Pulap and Pulusuk.*

The training programme will be delivered by the EPA Chuuk and the National Coordinator to the identified key trainers in Polowat, Pulap and Pulusuk. The trainers, with the supervision of the National Coordinator will then train selected community members.

#### *2.4 Delivery of the WASH Programme to schools*

The EPA Chuuk together with the members of the Water Steering Committee in Chuuk will develop a WASH programme for Polowat, Pulap and Pulusuk. The EPA Chuuk, the National Coordinator and the committee will deliver the programme to schools on the three islands. The programme will promote better water management and hygiene within the schools.

#### *2.5 Purchase and install manual rain gauge and spare parts in Polowat*

The SPC will facilitate the procurement, purchase and delivery of the rain gauge and the installation materials based on the list of material and specifications provided by the Chuuk Weather Service Office.

#### *2.6 Provide training in data recording and management in Polowat*

The Weather Service officer together with members of the Water Steering Committee will provide training to the school principal and others in Polowat on how to record, analyse and manage the data from the rain gauge.

### **KRA 3: National coordination of the project activities**

#### *3.1 Employ a National Coordinator housed in the Environment Protection Agency Chuuk*

A National Coordinator will be recruited and employed for a minimum of two years. Additional employment will be dependent on the assigned budget. This position will be based at the Environment Protection Agency in Chuuk to coordinate project implementation. The National Coordinator will report to the (1) Director of the Environment Protection Agency Chuuk and the (2) GCCA+ SUPA Project Manager based in Fiji. The National Coordinator will liaise closely with the USP-based Project Coordinator North (Output 2 of the overall GCCA+ SUPA Action), and any national officer as may be appointed by SPREP under Output 1 of the overall GCCA+ SUPA Action.

#### *3.2 Operational costs for National Coordinator*

The project will support the procurement of small equipment (i.e. laptops, desktop printer and external hard drives) and office supplies (i.e. office stationery, printer toner, etc.) specifically for the GCCA+ SUPA National Coordinator.

## **Logframe**

The logframe, which represents the basis for monitoring and evaluation, is shown as Annex 1.

## **Budget and Arrangements for Financial Management**

The budget and arrangements for transfer of funds and financial management is shown as Annex 2.

## **Schedule of Activities**

Annex 3 presents the schedule of activities.

# **4. INSTITUTIONAL ARRANGEMENTS, RISK MANAGEMENT AND EXIT STRATEGY**

## **Institutional Arrangements**

Implementation of this project in FSM will be the responsibility of the Environment and Protection Agency in Chuuk under the auspices of the Department of Environment, Climate Change and Emergency Management in Pohnpei and in collaboration with the Chuuk Water Steering Committee. The GCCA+ SUPA project in FSM is being implemented under the ambit of the Co-Delegation Agreement, Global Climate Change Alliance Plus – Scaling Up Pacific Adaptation (GCCA+ SUPA), CRIS number: ENV/2018/398237, which was signed by representatives from the European Union Delegation to the Pacific, SPC and SPREP on 27<sup>th</sup> December 2018.

### *Project Oversight Committee*

The project oversight will be placed on the Water Steering Committee in Chuuk which includes representatives from all the local project partners. It is expected that the Committee will meet on a quarterly basis or more often as required. The FSM GCCA+SUPA National Coordinator based at the EPA Chuuk will provide administrative support, including the preparation of meeting agendas and minute taking and dissemination to members and SPC using a standardized template. The committee will provide an oversight function and advice on addressing problems and issues.

### *Reporting*

The GCCA+ SUPA National Coordinator will be responsible for providing quarterly narrative and financial progress reports, and monthly progress reports to the project secretariat at SPC in Fiji. A template for reporting will be provided with applicable budget lines. The National Coordinator will also provide brief monthly updates to the project secretariat at SPC in Suva.

### *Day-to-Day Implementation of the Project*

The GCCA+ SUPA National Coordinator will have responsibility for overall coordination of the project, including quarterly and annual financial and narrative reporting to FSM government and to SPC. The GCCA+ SUPA National Coordinator is also responsible for day-



to-day coordination of the delivery of KRAs 1-2 for FSM. The GCCA+ SUPA National Coordinator reports to the Director for Environment Protection Agency in Chuuk, and the GCCA+ SUPA Project Manager in SPC.

## Risk Management

Risk	Risk level	Mitigating Measures
<b>Extreme events</b>		
Project implementation delayed by an extreme weather event e.g. cyclone, ocean surge, or major social/cultural events	High	<ul style="list-style-type: none"> <li>• Ensure planning of activities contains sufficient buffering for minimum one severe and disruptive weather event.</li> <li>• Major social and cultural events to be included in schedules during inception and planning.</li> </ul>
<b>Time constraints</b>		
Insufficient time to complete full installation of rainwater harvesting systems	Moderate / High	<ul style="list-style-type: none"> <li>• Adopt flexible and back-up planning approaches such that alternatives can be prioritised if and when necessary.</li> </ul>
<b>Transportation challenges</b>		
Limited transportation options from Chuuk to the outer islands	High	<ul style="list-style-type: none"> <li>• Schedule and budget chartering arrangements especially for assessments and the transportation of materials.</li> </ul>
<b>National capacity and challenges to full stakeholder involvement</b>		
Country has insufficient capacity to fully implement the project activities	High	<ul style="list-style-type: none"> <li>• Obtain assistance from government to identify persons who will be committed to the project.</li> <li>• Ensure full commitment of government.</li> </ul>
<b>Sustainability</b>		
Project activities are not maintained or sustainable	Moderate	<ul style="list-style-type: none"> <li>• Build in monitoring and maintenance of on-the-ground measures.</li> <li>• Promote ongoing community engagement during implementation phase.</li> <li>• Communicate with householders and the public on a regular basis using consistent messaging</li> <li>• Involve skilled community members in the installation of the on-the-ground measures.</li> <li>• Capitalise on collaboration opportunities with other development partners.</li> </ul>
<b>Assumptions</b>		
<ul style="list-style-type: none"> <li>• There are many uncertainties around the ongoing COVID-19 pandemic, which represents a serious constraint to project implementation. As more information becomes available, mitigation measures will be developed.</li> <li>• Global economic conditions and national governance do not prevent economic growth.</li> <li>• Global support for the Paris Climate Change Agreement is maintained.</li> </ul>		

- Continual high-level national government commitment to prioritising climate change and disaster risk management in the national development agendas.
- Social and political stability is maintained.
- Continuous collaboration amongst development partners occurs and is documented to ensure coherence, complementarity and efficiency amongst climate change and sector-based interventions.

## **Exit Strategy**

### *Strategy 1: Community Ownership*

Ongoing community engagement and effective communication through all phases of the project will promote ownership and contribute to the sustainability of project activities. Recognising that community involvement creates expectations, efforts will be made throughout to ensure that the project's and the community's expectations are the same.

### *Strategy 2: Further Funding*

Identifying alternative sources of grant funding or loan finance, or national government funds in order to continue a project's activity is the second exit strategy for the project in FSM.

GCCA+ SUPA is working closely with a number of other climate change adaptation and disaster risk management projects being implemented by regional and international organisations. Throughout the course of the project, routes to create synergies with other longer running activities will be pursued and where appropriate, developed.

### *Strategy 3: Private enterprise*

Developing an alternative business and/or operational model, through commercialising aspects of the project, is a third exit strategy. Within the scope of SUPA, community and private sector involvement in disaster risk management and climate change adaptation interventions will be encouraged where appropriate. Involvement of NGOs is also critical.

### *Strategy 4: Project Closure*

Winding down the project's activities as efficiently and effectively as possible to capture the benefits and any lessons learned is the fourth exit strategy. Lessons learnt from the GCCA: PSIS and RENI projects will be applied and include allowing sufficient time and staff for an efficient and complete closure process, complete documentation of all narrative and financial materials, and perhaps most importantly the compilation and sharing of lessons learnt through interactive discussion sessions with national stakeholders and regional partners.

### Annex 1: Indicative Logframe Matrix GCCA+ SUPA Activities in FSM

The activities, the expected outputs and all the indicators, targets and baselines included in the logframe matrix are indicative and may be updated during the implementation of the action. Note also that indicators will be disaggregated by sex whenever relevant.

Intervention logic	Indicators	Baselines (2020)	Targets (2022)	Sources and means of verification	Assumptions
<p><b>Overall objective:</b> Scaling up community resilience to water stress and climate-related extreme events in selected outer islands in Chuuk State.</p>	<ul style="list-style-type: none"> <li>Communities in minimum two outer islands, have improved access to potable water year-round and during extreme events.</li> <li>Requests for water supplied following typhoons and during droughts reduced in minimum two outer islands.</li> </ul>	<ul style="list-style-type: none"> <li>Unknown (awaiting assessment report)</li> <li>Unknown at present time</li> </ul>	<ul style="list-style-type: none"> <li>+ 20% increase in community water storage capacity in minimum 2 outer islands.</li> <li>Depending on the occurrence of extreme events, it may be impossible to measure this during the project timeframe.</li> </ul>	<ul style="list-style-type: none"> <li>Chuuk Public Utilities Corporation Data 2019</li> <li>Chuuk Water Supply and Sanitation Project 2019</li> <li>Typhoon Wutip Joint Damage Assessment Summary (FSM) 2019</li> <li>Typhoon Maysak Reports (2015)</li> <li>Other post disaster reports</li> </ul>	

Intervention logic	Indicators	Baselines (2020)	Targets (2022)	Sources and means of verification	Assumptions
<p><b>Specific objective:</b>            Improve water security by increasing access to potable water for selected communities, schools and households in Polowat, Pulusuk and Pulap.</p>	<ul style="list-style-type: none"> <li>• Behavioural change in households and schools to:               <ul style="list-style-type: none"> <li>- maintain water storage systems,</li> <li>- monitor water quality</li> <li>- adopt hygienic practices</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Unknown at present</li> </ul>	<ul style="list-style-type: none"> <li>• Increase of:               <ul style="list-style-type: none"> <li>- 250 persons adopt good maintenance practices for water storage systems.</li> <li>- 250 persons regularly monitor water quality</li> <li>- 40 school children adopt more hygienic practices</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Chuuk Public Utility Corporation Data</li> <li>• Project reports</li> <li>• WASH reports</li> <li>• Post Disaster reports</li> <li>• IOM Reports</li> </ul>	<ul style="list-style-type: none"> <li>• Damage from a possible typhoon can be mitigated so the project can be completed in the project time frame.</li> </ul>

Intervention logic	Indicators	Baselines (2020)	Targets (2022)	Sources and means of verification	Assumptions
<p><b>KRA 1:</b> Install and enhance rainwater harvesting systems in community shelters/buildings in Polowat, Pulusk and Pulap</p>	<ul style="list-style-type: none"> <li>• Assessment of existing water storage systems in community shelters/buildings in Polowat, Pulusuk and Pulap</li> <li>• Letters of Agreement signed by community leaders and Chuuk local government representatives</li> <li>• Number of community water systems enhanced/or constructed</li> <li>• Number of skilled community members in Polowat, Pulusuk and Pulap trained in rainwater storage maintenance</li> </ul>	<p>Water Catchments:</p> <ul style="list-style-type: none"> <li>• Polowat- 26 tanks, 9 wells</li> <li>• Pulap- 20 tanks, 13 wells</li> <li>• Pulusuk- 41 tanks, 8 wells</li> </ul> <ul style="list-style-type: none"> <li>• 0</li> <li>• Unknown</li> <li>• 0</li> </ul>	<ul style="list-style-type: none"> <li>• 1 Assessment report on existing community water storage systems in at least 2 islands</li> <li>• 2 LoAs signed</li> <li>• At 2 community shelters/buildings in 2 islands have rainwater storage system installed or upgraded</li> <li>• 20 community members trained.</li> </ul>	<ul style="list-style-type: none"> <li>• Assessment report</li> <li>• Project progress and final reports</li> <li>• Asset Registers</li> <li>• State and National Government reports</li> <li>• Disaster preparedness and post disaster reports</li> </ul>	<ul style="list-style-type: none"> <li>• The community agree to take responsibility for maintenance of the rainwater storage systems.</li> <li>• Adequate transportation and/or charter vessels to the outer islands is available</li> <li>• Damage from a possible typhoon can be mitigated so the project can be completed in the project time frame.</li> </ul>

Intervention logic	Indicators	Baselines (2020)	Targets (2022)	Sources and means of verification	Assumptions
<p><b>KRA 2:</b> Training and capacity building in rainfall data management in Polowat and water management for households and schools in Polowat, Pulusuk and Pulap</p>	<ul style="list-style-type: none"> <li>• Rapid assessment on household water storages performed in Polowat, Pulusuk and Pulap</li> <li>• Train the trainer programme on water monitoring, treatment and maintenance of household rainwater harvesting systems</li> <li>• Number of key trainers and communities trained in monitoring and maintenance in Polowat, Pulusuk and Pulap</li> <li>• Number of WASH programmes delivered to schools</li> <li>• Rain data availability for Polowat</li> <li>• Number of persons trained in rainfall data recording</li> </ul>	<ul style="list-style-type: none"> <li>• Pulusuk: <ul style="list-style-type: none"> <li>- Community catchment: 8</li> <li>- Public catchment: 14</li> <li>- Groundwater wells: 30</li> </ul> </li> <li>• Polowat: 26 catchments</li> <li>• Pulap: 20 catchments</li> <li>• 0</li> <li>• 0</li> <li>• 0</li> <li>• 0</li> <li>• 0</li> </ul>	<ul style="list-style-type: none"> <li>• Assessment report on household water storage systems</li> <li>• 1 training programme developed</li> <li>• 5 trainers per island</li> <li>• 30 persons trained per island</li> <li>• 2 WASH trainings in 2 islands</li> <li>• 1 rain gauge installed in Polowat</li> <li>• 5 community members trained in rainfall data recording</li> </ul>	<ul style="list-style-type: none"> <li>• Joint Drought Preliminary Assessment Report 2016 (GoFSM)</li> <li>• Rapid assessment report</li> <li>• Project progress report</li> <li>• EPA Chuuk reports</li> <li>• Water Steering Committee report</li> <li>• Training reports</li> <li>• WASH FSM report</li> <li>• Chuuk Weather Service Data</li> </ul>	<ul style="list-style-type: none"> <li>• Communities are receptive to the training in monitoring and maintenance</li> <li>• Adequate transportation and/or charter vessels to the outer islands is available</li> <li>• Damage from a possible typhoon can be mitigated so the project can be completed in the project time frame.</li> <li>• Polowat community agrees to receive the rain gauge and monitor rainfall</li> </ul>

Intervention logic	Indicators	Baselines (2020)	Targets (2022)	Sources and means of verification	Assumptions
<b>KRA 3:</b> National coordination	<ul style="list-style-type: none"> <li>Number of quarterly narrative and financial reports submitted to SPC by National Coordinator FSM</li> </ul>	<ul style="list-style-type: none"> <li>0 reports</li> </ul>	<ul style="list-style-type: none"> <li>9 reports</li> </ul>	<ul style="list-style-type: none"> <li>Quarterly narrative and financial reports</li> </ul>	<ul style="list-style-type: none"> <li>National coordinator is recruited by Q2 2020</li> </ul>

## Annex 2: Budget and Payment Schedule

Activity	Cost (Euros)
<b>KRA1: Install and enhance rainwater harvesting systems in community shelters/buildings in Polowat, Pulusuk and Pulap</b>	
1.1 Assessment of existing water systems in community shelters/buildings in Polowat, Pulusuk, and Pulap	40,000
1.2 Community consultations in Polowat, Pulusuk, and Pulap	
1.3 Selection of community water systems for scaling up in Polowat, Pulusuk, and Pulap	
1.4 Letters of Agreement with local government/community leaders in Polowat, Pulusuk, Pulap to cover management and maintenance of the water systems	
1.5 Complete design of water harvesting systems, materials specifications and a full description of works	
1.6 Procure, purchase and install community rainwater harvesting systems in Polowat, Pulusuk and Pulap	300,000
1.7 Maintenance training to skilled members of the Polowat, Pulusuk and Pulap community, and provision of maintenance materials	10,000
<b>Total KRA 1</b>	<b>350,000</b>
<b>KRA2: Training and capacity building in rainfall data management in Polowat and water management for households and schools in Polowat, Pulusuk and Pulap.</b>	
2.1 Rapid assessment of household water storage systems in Polowat, Pulusuk and Pulap.	20,000
2.2 Preparation of a training programme in the monitoring, treatment and maintenance of household rainwater harvesting systems using a "train the trainer" approach	30,000
2.3 Delivery of the training programme to key trainers and community members in Polowat, Pulusuk and Pulap.	
2.4 Delivery of the WASH programme to schools	5,000
2.5 Purchase and install manual rain gauge, and spares, in Polowat	
2.6 Provide training in data recording and management in Polowat	5,000
<b>Total KRA 2*</b>	<b>60,000</b>
<b>KRA 3: Coordination</b>	
3.1. Recruit National Coordinator	60,000



Activity	Cost (Euros)
3.2 Support National Coordinator	10,000
<b>Total KRA 3</b>	<b>70,000</b>
Contingency**	20,000
<b>Total</b>	<b>500,000</b>

\*EPA Chuuk will be co-financing KRA2

\*\*Utilisation of the Contingency budget line will require SPC's approval

The Government of FSM has requested that SPC directly hire the National Coordinator (by letter from DECEM dated 23<sup>rd</sup> March 2020). The National Coordinator will be placed at Chuuk State EPA.

SPC will undertake the procurement for all project activities in close collaboration with the Government of FSM

All procurement will be based on SPC's Procurement Policy



SPC Procurement  
policy - 10 April 2017

### **Other information**

The Government of FSM will oversee accurate and regular records and accounts of the implementation of the Action. The following conditions will also apply:

- Fixed assets (equipment): All fixed assets (equipment) will remain the property of SPC until the closure of the project. On closure of the project, the assets will officially be handed over by SPC to the respective stakeholders in FSM. An asset register of all assets purchased should be maintained by the National Coordinator and kept in the Environment Protection Agency, Chuuk.

### Annex 3: Schedule of activities

Activities	M1-6 2020	M7-12 2020	M1-6 2021	M7-12 2021	M1-6 2022	M7-12 2022
<b>KRA1: Install and enhance rainwater harvesting systems in community shelters/buildings in Polowat, Pulusuk and Pulap</b>						
1.1 Assessment of existing water systems in community shelters/buildings in Polowat, Pulusuk and Pulap						
1.2 Community consultations in Polowat, Pulusuk and Pulap						
1.3 Selection of community water systems for scaling up in Polowat, Pulusuk and Pulap						
1.4 Letters of Agreement with local government/community leaders in Polowat, Pulusuk and Pulap to cover management and maintenance of the water systems						
1.5 Complete design of water harvesting systems, materials specifications and a full description of works						
1.6 Procure, purchase and install community rainwater harvesting systems in Polowat, Pulusuk and Pulap						
1.7 Maintenance training to skilled members of the Polowat, Pulusuk and Pulap community, and provision of maintenance materials						
<b>KRA2: Training and capacity building in rainfall data management in Polowat and water management for households and schools in Polowat, Pulusuk and Pulap.</b>						
2.1 Rapid assessment of household water storage systems in Polowat, Pulusuk and Pulap.						
2.2 Preparation of a training programme in the monitoring, treatment and maintenance of household rainwater harvesting systems using a "train the trainer" approach						
2.3 Delivery of the training programme to key trainers and community members in Polowat, Pulusuk and Pulap.						
2.4 Delivery of the WASH programme to schools						
2.5 Purchase and install manual rain gauge, and spares, in Polowat						
2.6 Provide training in data recording and management in Polowat						

<b>KRA 3: Coordination</b>						
3.1 Recruit National Coordinator						
3.2 Support National Coordinator						