

# Global Climate Change Alliance Plus Scaling up Pacific Adaptation

## FINAL REPORT

*Learning from the past and scaling up  
climate change adaptation measures for the future*



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Suva, Fiji, 2023

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## Abbreviations

<b>AMRC</b>	Aitutaki Marine Research Centre, Cook Islands	<b>MMR</b>	Ministry of Marine Resources, Cook Islands
<b>CCID</b>	Climate Change and International Development, Ministry of the Economy, Fiji	<b>MoAW</b>	Ministry of Agriculture and Waterways, Fiji
<b>CROP</b>	Council of Regional Organisations in the Pacific	<b>MOHHS</b>	Ministry of Health and Human Services, Marshall Islands
<b>COVID-19</b>	coronavirus disease	<b>MoU</b>	memorandum of understanding
<b>DCCNR</b>	Department of Climate Change and National Resilience, Nauru	<b>MoWE</b>	Ministry of Waterways and Environment, Fiji
<b>DECEM</b>	Department of Environment, Climate Change and Emergency Management, FSM	<b>NAP</b>	National Adaptation Plan
<b>DUD</b>	Delap-Uliga-Darrit corridor in the Marshall Islands	<b>NC4</b>	National Climate Change Coordination Committee, Palau
<b>EPA</b>	Environment Protection Agency, Chuuk State, FSM	<b>NCCHP v2</b>	National Climate Change and Health Policy and Revised Action Plan (v2) Marshall Islands
<b>EU</b>	European Union	<b>NCDs</b>	non-communicable diseases
<b>EUD</b>	Delegation of the European Union for the Pacific	<b>NGO</b>	non-government organisation
<b>FSM</b>	Federated States of Micronesia	<b>PACRES</b>	Intra-ACP GCCA+ Pacific Adaptation to Climate Change and Resilience Building
<b>FSS</b>	Fetuvalu Secondary School, Tuvalu	<b>PDD</b>	project design document
<b>GCCA+ SUPA</b>	Global Climate Change Alliance Plus Scaling up Pacific Adaptation	<b>PLANET</b>	participation, link to rights, accountability, non-discrimination, empowerment, transforming social norms
<b>GCCA: PSIS</b>	Global Climate Change Alliance: Pacific Small Island States project	<b>PMU</b>	project management unit
<b>GEM</b>	Geoscience, Energy and Maritime Division, SPC	<b>PWD</b>	Public Works Department, Ministry of Public Utilities, Infrastructure, Environment, Labor, Meteorology and Disaster, Tuvalu
<b>KRA</b>	key result area	<b>RO</b>	reverse osmosis
<b>LCCR</b>	Lifestyle and Climate Change Resilience project, Marshall Islands	<b>ROM</b>	results-oriented monitoring
<b>M&amp;E</b>	monitoring and evaluation	<b>SDA</b>	Seventh Day Adventist
<b>MEIDECC</b>	Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications, Tonga	<b>SOP</b>	standard operating procedures
<b>MISE</b>	Ministry of Infrastructure and Sustainable Energy, Kiribati	<b>SPC</b>	Pacific Community
		<b>SPREP</b>	Secretariat of the Pacific Regional Environment Programme
		<b>USP</b>	The University of the South Pacific
		<b>WASH</b>	water, sanitation and hygiene

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## Executive summary

The Global Climate Change Alliance Plus Scaling up Pacific Adaptation (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) was funded with €14.89 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, Marshall Islands, Nauru, Niue, Palau, Tonga and Tuvalu.

The project had three main outputs: strengthen strategic planning at national levels (delivered by SPREP); enhance the capacity of subnational government stakeholders to build resilient communities (delivered by USP); and strategic and local climate change adaptation and mainstreaming scaled up in up to five sectors (delivered by SPC). This publication reports on the outputs delivered by SPC and SPREP under a joint Delegation Agreement (the output delivered by USP under a Grant Agreement is reported on separately).

One of the key achievements was the development of both an “extended” and “light” version of an impact analysis methodology that was trialled in five countries (Cook Islands, FSM, Fiji, Palau and Tonga) and shared with the other project countries through regional training events. The methodology provides a process whereby new climate change adaptation interventions can be designed and implemented after having analysed the challenges and risks encountered in previous interventions, thereby avoiding or mitigating those risks.<sup>1</sup>

Another key achievement was the development and testing of four criteria for scaling up adaptation to climate change in the Pacific. The criteria were designed by the participating countries at the start of the project and applied during implementation of on-the-ground measures in the sectors of coastal protection, health, marine resources and water security. The criteria were: (i) identification and analysis of past measures; (ii) alignment with national development priorities; (iii) application of a people-centred approach; and (iv) existence of a framework for maintenance and sustainability. The criteria have been endorsed by the countries and examples of their application published.<sup>2</sup>

The GCCA+ SUPA project was delivered using a people-centred approach, which places people and their environment at the centre of both climate change adaptation and development project planning, implementation, decision-making, monitoring and reporting. The approach consists of four pillars: human rights, gender and social inclusion, Pacific culture, and environmental sustainability. Six principles guide the implementation of a people-centred approach to development: participation, link to rights, accountability, non-discrimination, empowerment, and transforming social norms (together known as PLANET). The application of these principles helped maximise the positive social and environmental outcomes of the GCCA+ SUPA project. The people-centred approach was identified as a “Good Practice” in a results-oriented monitoring review conducted by the EU in 2022.

Specific on-the-ground scaling-up measures were completed in the coastal protection sector (Fiji and Tonga), health sector (Marshall Islands and Palau), marine resources sector (Cook Islands) and the water security sector (FSM, Kiribati, Nauru, Niue and Tuvalu). Mainstreaming of climate change into policies and plans was scaled up in Fiji, Marshall Islands and Tonga. Communication and visibility were guided by a communications plan and delivered through a standalone website<sup>3</sup>, social media channels, documents and reports, and a video series “Scaling up Pacific adaptation to climate change”.

1 Pacific impacts analysis methodology guide: <https://gccasupa.org/wp-content/uploads/2023/08/SUPA-Impact-Methodology-Guide01.pdf>

2 Scaling up Pacific adaptation to climate change using a people-centred approach: <https://gccasupa.org/wp-content/uploads/2023/10/Scaling-Up-Pacific-Adaptation-Using-A-People-Centred-Approach.pdf>

3 <https://gccasupa.org>

An analysis of the logical framework indicators found that all targets were achieved, with some being exceeded. The results-oriented monitoring review, conducted by the EU in 2022, showed good results for the key criteria: relevance; coordination, complementarity and EU-added value; intervention logic, monitoring and learning; efficiency; effectiveness; sustainability; cross-cutting issues; and communication and visibility.

The indicative statement of income and expenditure for the period 1 January 2019 to 31 July 2023 showed an expenditure rate with commitments of 88%.

The COVID-19 pandemic was a major challenge to project implementation due to restricted travel in the Pacific region from March 2020 to mid-2022, during which time all communication between the implementing partners and the country partners was conducted via virtual means. However, this challenge also provided an opportunity as country coordinators took on additional responsibilities for management and oversight of the national activities, and this represented an upskilling. As a result, with the assistance of country partners, the project activities were delivered in full and on time.

Lessons learnt were compiled throughout the project and discussed in detail during the final steering committee and lessons learnt meeting held in Palau in March 2023. The lessons learnt are discussed in this report and have been shared with partners during the closure period, July to December 2023.

The successful delivery of the project reflects the hard work of the project teams in each of the 10 countries and the work of the implementing partners. It also attests to the continual support of the Delegation of the European Union for the Pacific and their timely advice and guidance and acknowledges the important role this played in achieving the project objectives.

# 1. Introduction and management of the project

## 1.1 Introduction

The Global Climate Change Alliance Plus Scaling up Pacific Adaptation (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) was funded with €14.89 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, Marshall Islands, Nauru, Niue, Palau, Tonga and Tuvalu.

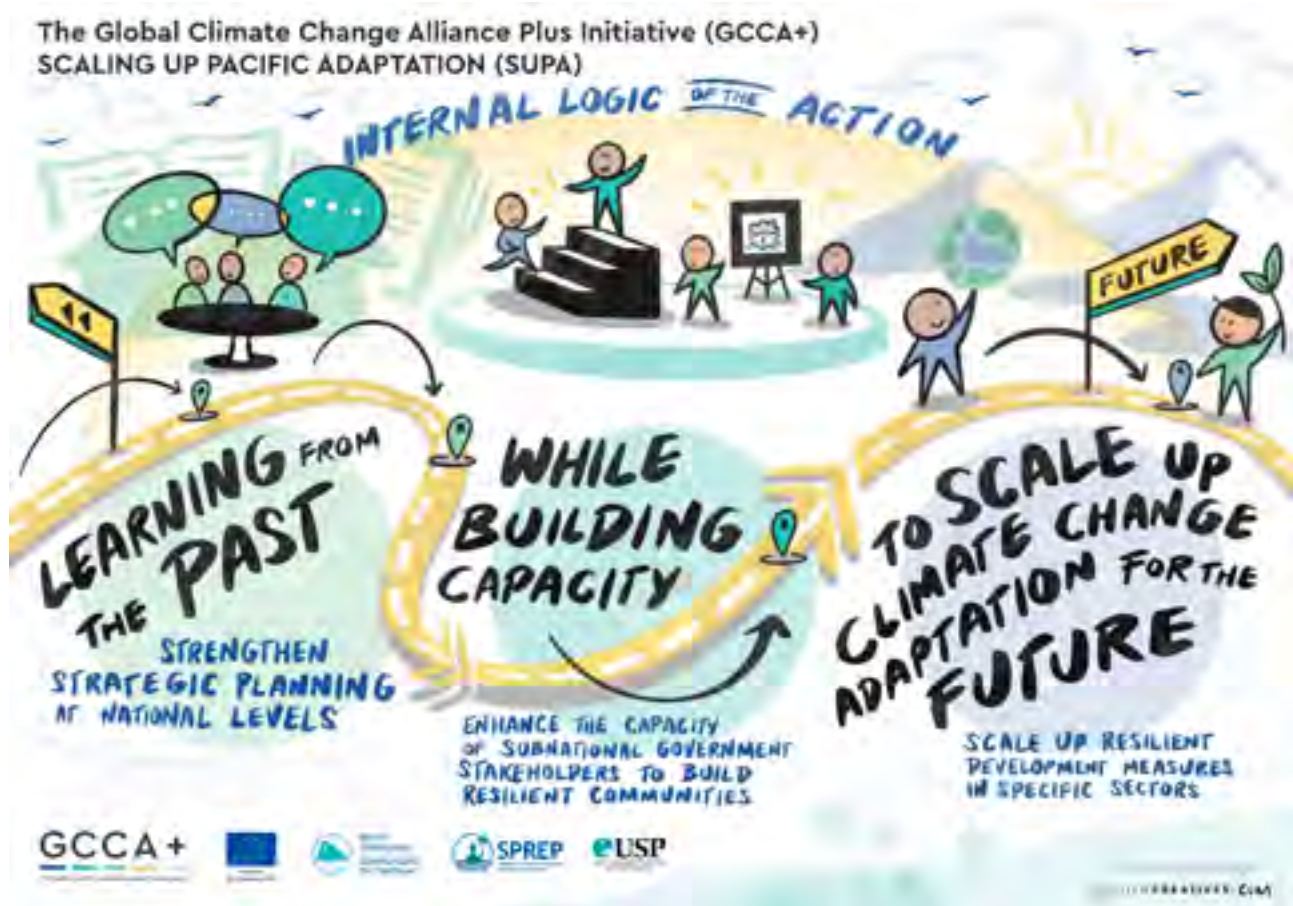
GCCA+ SUPA was financed under the EU's Development Cooperation Instrument through the Global Public Goods and Challenges Programme – Global Climate Change Alliance Plus Annual Action Document 2017. It followed an earlier initiative, GCCA: Pacific Small Island States (GCCA: PSIS), implemented between 2011 and 2016, and financed under the Global Climate Change Alliance.

The overall objective of the GCCA+ SUPA action was to enhance climate change adaptation and resilience in 10 Pacific Island countries. The specific objective was to strengthen the implementation of sector-based, but integrated, climate change and disaster risk management strategies and plans.

The GCCA+ SUPA action has three main outputs:

- OUTPUT 1:** Climate and disaster risk information, knowledge management, monitoring and strategic planning capacities strengthened at national and regional levels. Short title: Strengthen strategic planning at national levels (delivered by SPREP).
- OUTPUT 2:** Planning and decision-making capacities to address climate change and disaster risks at subnational and community level strengthened, applying participatory, gender-sensitive and rights-based approaches. Short title: Enhance the capacity of subnational government stakeholders to build resilient communities (delivered by USP).
- OUTPUT 3:** Strategic and local interventions for climate change adaptation and mainstreaming scaled up in up to five sectors. Short title: Strategic and local climate change adaptation and mainstreaming scaled up in up to five sectors (delivered by SPC).

Figure 1 on the following page shows a representation of the internal logic of the GCCA+ SUPA action.



**FIGURE 1. Internal logic of the GCCA+ SUPA project**

The GCCA+ SUPA action was delivered under two separate agreements. The project management unit (PMU) and outputs 1 and 3 were implemented under a European Union Delegation Agreement with SPC and with SPREP as a Co-Delegate (ENV/2018/398-237). Output 2 was implemented through a European Union Grant Agreement for Pillar Assessed Organisations with USP (ENV/2018/398-238).

This final report covers the requirements of ENV/2018/398-237 and addresses outputs 1, 3 and the PMU. A separate final report is under preparation by USP to cover the requirements of ENV/2018/398-238 and address output 2. There are four main sections in this final report:

1. The first section covers the overall management of the project and includes amendments to the Delegation Agreement, the logical framework, implementation schedule, evaluation, financial and activity reporting, and staffing.
2. Section two covers the achievements for outputs 1 and 3 at the regional level. This includes the methodology for impact analysis, criteria for scaling up climate change adaptation, scaling up of adaptation measures in development sectors, the application of a people-centred approach, communications and visibility, and evidence of regional achievements using the logical framework. Details on national achievements such as timelines, highlights, implementation details, challenges and lessons learnt are included in Annex 3.
3. Section three addresses challenges and lessons learnt.
4. The fourth section presents the conclusions.

## 1.2 Characteristics of the GCCA+ SUPA project countries and territories

The 10 Pacific Island countries included in the GCCA+ SUPA project are located in the western Pacific. Except for Fiji, they are characterised by small land areas and large ocean jurisdictions, small populations (ranging from 1624 in Niue to 110,136 in Kiribati [2015 census]), remoteness from major cities and land areas, and all except Nauru and Niue consist of archipelagos. Three countries (Kiribati, Marshall Islands and Tuvalu) consist almost entirely of tiny, low-lying atoll islands, while the other countries comprise a mixture of low-lying and higher islands. Fiji is a larger country with a land area of 18,272 km<sup>2</sup> and a population of 884,887 (2017 census), more than half of whom live in urban areas. All the countries are extremely vulnerable to the impacts of climate change, specifically rising air and sea temperatures, changing rainfall patterns, changes in extreme weather events, rising sea levels and ocean acidification.



FIGURE 2. Location of the Pacific countries and territories

### 1.3 Delegation Agreement

The Delegation Agreement, Global Climate Change Alliance Plus Scaling up Pacific Adaptation ENV/2018/398-237, was signed on 27 December 2018.

There was one amendment to the Delegation Agreement, which was signed on 25 June 2020. This added the service contract modality as one of the means of delivery for output 3 and further specified that each country identify the government entities that have monopolistic jurisdiction over their selected sectors, as mandated by legal and governance instruments.

### 1.4 Project logical framework

The project's logical framework, included in the Delegation Agreement, was used as the reporting framework for the progress and annual reports. The results-oriented monitoring (ROM) review of the GCCA+ SUPA project, conducted from 21 March 2022 to 22 April 2022, recommended updating the baselines in the logical framework.

The logical framework presented in Annex 1 shows the version included in the Delegation Agreement with updated baselines and additional indicators.

## 1.5 Project schedule

Table 1 shows the overall project schedule, and the dates major milestones were reached.

**TABLE 1. Project schedule and milestones**

Date	Key milestones	Stage	
<b>2023</b>			
December	End of closure period	Closure period	
December	Final documentation and report submitted		
November	Project audit for 1 July 2020 to 31 December 2021 completed		
June	End of implementation period	Implementation period	
June	Output 1 and output 3 in-country activities completed		
March	Final steering committee and lessons learnt meeting		
<b>2022</b>			
All year	Implementation of output 3 scaling-up activities		
November	Impacts database launched at regional impacts analysis training		
September	Virtual steering committee meeting		
July	Impact analysis completed for trial countries		
May*	Project audit for 1 January 2019 to 30 June 2020 completed		
April	Virtual steering committee meeting		
April	ROM review completed		
<b>2021</b>			
All year	Implementation of output 3 scaling up activities		
December	3rd reallocation of savings from travel budget agreed		
September	Virtual steering committee meeting		
April	2nd reallocation of savings from travel budget agreed		
April	Virtual steering committee meeting		
<b>2020</b>			
October	Trial countries selected for impact analysis	Recruitment and planning activities	
September	1st reallocation of savings from travel budget agreed		
September	Project design documents (PDDs) signed by all 10 countries		
August–November	Steering committee meeting cancelled, five virtual meetings held		
June	Amendment 1 to Delegation Agreement signed		
March*	COVID-19 travel restrictions commenced		
<b>2019</b>			
April	Consultations and preparation of concept notes and PDDs commenced		
March	Inception meeting in Suva		
January	Recruitment of key members of the PMU commenced		
<b>2018</b>			
December	Delegation Agreement signed		

\*During the period March 2020 to mid-2022, COVID-19-related travel restrictions were in place in Pacific Islands.

## 1.6 Project steering committee meetings

The planned schedule for project steering committee meetings was interrupted by the travel restrictions that were put in place during the COVID-19 pandemic. Starting at the end of March 2020 and continuing until mid-2022, air and sea travel in the Pacific Island region was restricted to exceptional circumstances such as medical emergencies. Countries began to open their borders in 2022, but it was not until the middle of 2022 that region-wide transportation was available.

As a result, the planned schedule for steering committee meetings had to be replaced by virtual meetings (see Table 2). These were an acceptable substitute but obviously did not provide the same opportunities for the formal and informal exchange of experiences which are an essential component of a regional project such as the GCCA+ SUPA project.

**TABLE 2. Schedule of steering committee meetings**

Name of meeting	Date	Type of meeting and venue	Number of participants	
			Female	Male
Inception meeting	4–6 March 2019	Face-to-face meeting held in Suva	27	35
Steering committee meeting	March 2020	Cancelled because of COVID-19 travel restrictions; replaced by “Zooming SUPA” series of meetings		
Zooming SUPA	21 July 2020	Health	20	19
	13 August 2020	Coastal protection	21	18
	15 September 2020	Marine resources	22	15
	15 October 2020	Water security part 1	25	15
	15 November 2020	Water security part 2	18	16
Steering committee meeting	15 April 2021	Hybrid meeting	31	32
Steering committee meeting	30 September 2021	Zoom meeting	30	26
Steering committee meeting	27–28 April 2022	Zoom meeting	23	25
Steering committee meeting	28–29 September 2022	Hybrid meeting	21	21
Steering committee and lessons learnt meeting	13–17 March 2023	Face-to-face meeting held in Palau	27	34



Participants included representatives from all 10 countries, the Delegation of the European Union (EUD) for the Pacific and the implementing partners (SPC, SPREP and USP).

The meetings focused on sharing highlights of project activities in each country, as well as overall delivery activities such as finance, delivery rates and communications.

The final meeting in Palau in March 2023 included a two-day session focusing on some of the key outcomes of the SUPA project, including the use of the people-centred approach and the criteria for scaling up Pacific adaptation activities. Another useful session was a closed session for country representatives only, providing them with an opportunity to highlight some of their internal challenges. The recommendations from the closed session were provided to the implementing partners and EUD representatives to consider in the future planning of climate change activities.

## 1.7 Evaluation of the project

The ROM review of the GCCA+ SUPA Delegation Agreement with SPC and SPREP was conducted over the period 21 March 2022 to 22 April 2022.

The results of the ROM review showed good results for the key criteria: relevance; coordination, complementarity and EU-added value; intervention logic, monitoring and learning; efficiency; effectiveness; sustainability; cross-cutting issues; communication and visibility.

The ROM review identified the people-centred approach adopted by SPC and applied throughout the GCCA+ SUPA project as a "Good Practice". The people-centred approach, which incorporates gender and rights-based sensitivities, was applied to all activities throughout the GCCA+ SUPA project. The review also identified the PLANET checklist for development projects as a useful tool (P=Participation, L=Link to rights, A=Accountability, N=Non-discrimination, E=Empowerment and T=Transforming social norms).

Priority recommendations from the ROM review included:

- Continue to monitor the progress of activities closely so that the need for a no-cost extension could be ascertained by the end of 2022 or beginning of 2023.
- Revise the logical framework to add sex disaggregated data and use of the people-centred approach to some indicators and revise baselines.
- Ensure adequate time for close out activities, including review and documentation of lessons learnt and best practices.

## 1.8 Project reporting

Reporting to EUD was conducted by the project manager on a biannual and annual basis. The six-month progress reports and the annual reports documented progress for the six-month or one-year period for outputs 1 and 3 and the PMU. In addition, meetings with colleagues at EUD provided the project manager and PMU team with advice and guidance, which was invaluable in addressing challenges in project implementation. Reports on the steering committee meetings were prepared and circulated to the countries and EUD.

The implementing agencies, including USP, met monthly to coordinate project activities in-country. The frequency of these meetings varied during the final year of implementation.

The country coordinators recruited under output 3 provided monthly reports using a standard template tailored to the activities in each individual country. The consultants recruited under output 1 provided regular reports as specified in their contracts.

Due to the COVID-19 travel restrictions, missions to countries were not conducted during the period March 2020 to mid-2022. This meant missions were restricted to the initial planning stage in 2019 and the end of the implementation period from mid-2022 to June 2023 (some financial closure missions were completed between July and August 2023). Besides presenting challenges, the travel restrictions presented opportunities in that the national project officers and coordinators took on the added responsibility for the management and oversight of the project activities, thereby building individual and national capacity.

## 1.9 Financial management

SPC finance policies were used for the financial management of the GCCA+ SUPA project. The implementing modalities were grant agreements, service contracts and direct procurement.

On 1 July 2020 and on 1 April 2022, re-alignments of the SPC Procurement Policy came into effect. On 28 August 2021, a travel levy was introduced for 2% to be charged on all airfares purchased by SPC to be used to support SPC's transition to lower emissions operations. The travel levy was established under the Manual of Staff Policies.

The statement of income and expenditure for the period 1 January 2019 to 31 July 2023 is presented in Figure 3 and indicates an expenditure rate with commitments of 88%.

The statement of income and expenditure for the period 1 January 2019 to 31 December 2023 is inserted in the folder at the back of this report as it was not available at the time of printing.

Payments have been received from EUD as follows:

- **Pre-financing payment**      **€1,327,094.00**
- **Interim payment**            **€1,664,750.00**
- **Interim payment**            **€3,802,271.00**
- **Interim payment**            **€3,167,623.00**

The final payment has yet to be requested.

Three budget changes were approved by the countries and EUD over the period 2021 to 2022, primarily to reflect the movement of travel savings to other budget lines. These changes were in line with the 25% threshold allowed in the General Conditions to the Delegation Agreement. An additional budget change to the output 1 budget was approved in 2021.

Asset registers were compiled for each country, and assets were formally transferred to each country at the end of 2023 on completion of country activities.

Two external audits commissioned by EUD have been conducted. An audit for expenditures over the period 1 January 2019 to 30 June 2020 was undertaken by the firm Mazars and identified only minor compliance issues. An audit for expenditures over the period 1 July 2020 to 31 December 2021 by the firm Price Waterhouse Coopers is being undertaken at the time of printing this report.

Global Climate Change Alliance Plus Scaling up Pacific Adaptation. STATEMENT OF INCOME AND EXPENDITURE FOR THE PERIOD 1ST JAN 2019 TO 31ST JULY 2023																					
Project Budget Line	INCOME PERIOD																				
	2019	2020	2021	2022	2022	2022	2023	2023	2023	2023	2023	2023	TOTAL INCOME								
Funds Received	1/01/2019 to 31/12/2019	1/01/2020 to 31/12/2020	1/01/2021 to 31/12/2021	1/01/2022 to 31/12/2022	1/01/2022 to 31/12/2022	1/01/2022 to 31/12/2022	1/01/2022 to 31/12/2022	1/01/2022 to 31/12/2022	1/01/2022 to 31/12/2022	1/01/2022 to 31/12/2022	1/01/2022 to 31/12/2022	1/01/2022 to 31/12/2022	TOTAL EXP. COMMIT.								
Overall General Budget Revised	1/01/2019 to 31/12/2019	1/01/2020 to 31/12/2020	1/01/2021 to 31/12/2021	1/01/2022 to 31/12/2022	1/01/2022 to 31/12/2022	1/01/2022 to 31/12/2022	1/01/2022 to 31/12/2022	1/01/2022 to 31/12/2022	1/01/2022 to 31/12/2022	1/01/2022 to 31/12/2022	1/01/2022 to 31/12/2022	1/01/2022 to 31/12/2022	TOTAL EXP. COMMIT.								
Output 0 - SPC - PMU Overall management and coordination of the action																					
1.0 - SPC-PMU PROJECT OFFICE COSTS																					
1.1 - STAFF costs	181,200	117,535	313,209	344,179	956,122	129,529	77,217	115,400	192,617	150,181	163,732	313,913	99,184	139,707	238,891	141,301	1,016,251	6	1,016,257	75%	
1.2 - Travel and subsistence	36,800	8,000	27,000	(37,000)	34,800	7,353	3,615	4,988	132	1,953	2,085	2,085	2,228	2,339	5,267	1,155	20,848	516	21,364	25%	
1.3 - Office costs	218,000	125,535	340,209	307,179	990,922	136,881	78,589	119,016	197,605	150,313	165,686	315,998	102,112	142,046	244,158	142,456	1,037,099	522	1,037,621	72%	
2.0 - ACTIVITY COSTS	50,000	10,000	7,500	15,000	50,000	14,919	361	361	361	(949)	(949)	(949)	(949)	(949)	(949)	912	14,841	15,655	30,496	61%	
Subtotal Activity costs	50,000	10,000	7,500	15,000	50,000	14,919	361	361	361	(949)	(949)	(949)	(949)	(949)	(949)	912	14,841	15,655	30,496	61%	
Subtotal Output 0 - SPC-PMU	1,490,100	226,000	133,035	352,209	1,040,922	151,800	78,589	119,376	197,966	149,364	165,686	315,049	101,711	142,046	243,757	143,368	1,051,940	16,177	1,068,118	72%	
Output 1 - SPREP - Climate and disaster risk information, knowledge management, monitoring and strategic planning capacities strengthened at national and regional levels																					
3.0 - SPREP PROJECT OFFICE COSTS																					
3.1 - STAFF costs	180,900	90,400	180,900	125,115	577,315	8,561	25,605	59,476	85,081	68,031	70,449	138,480	65,449	67,074	132,523	71,927	436,573	-	436,573	77%	
3.2 - Travel and subsistence	10,000	15,000	(15,000)	(15,000)	25,000	1,787	-	-	2,349	2,349	2,349	2,349	2,349	2,349	14,008	38,315	56,459	-	56,459	195%	
3.3 - Office costs	173,931	72,375	243,703	24,000	155,380	733	7,581	8,849	16,430	57,09	6,811	12,520	13,220	14,175	27,700	59,591	116,975	-	116,975	67%	
Subtotal Office costs	173,931	72,375	243,703	24,000	155,380	733	7,581	8,849	16,430	57,09	6,811	12,520	13,220	14,175	27,700	59,591	116,975	-	116,975	67%	
Subtotal Output 1 - SPREP	1,142,138	375,000	146,667	418,333	981,532	11,081	33,186	68,325	101,511	73,740	79,610	153,350	84,989	89,243	174,232	169,833	610,007	-	610,007	79%	
Output 2 - SPREP - Strategic and local interventions for climate change adaptation and mainstreaming scaled-up in up to 5 sectors																					
5.0 - PROJECT OFFICE COSTS																					
5.1 - STAFF costs - Specify the title and Full Time Equivalent	1,920,500	260,628	561,538	337,646	1,314,112	98,346	81,084	145,655	226,739	168,479	239,261	407,740	306,506	252,768	559,273	225,149	1,517,248	59,948	1,577,195	82%	
5.2 - Office costs	25,200	14,700	23,500	(49,000)	1,700	12,267	20	20	20	(11,637)	(11,637)	(11,637)	(11,637)	(11,637)	(501)	-	149	-	149	1%	
Subtotal Office costs	1,945,700	275,328	585,038	288,646	1,315,812	110,613	81,104	145,675	226,759	156,842	227,624	396,103	306,005	252,768	558,773	225,149	1,517,397	59,948	1,577,344	81%	
6.0 ACTIVITY COSTS																					
To be broken down by Activity and cost category or by activity																					
6.1.0 - Communication and visibility	200,000	35,000	60,000	152,024	257,024	2,024	445	445	445	34,285	45,811	80,096	44,558	55,095	99,653	22,805	205,024	5,312	210,336	105%	
6.2.0 - National level consultations to select geographical focus of measures to be scaled-up in the selected sector	197,280	10,000	-	87,400	222,400	156,948	1,115	5,620	16,779	171,96	16,262	33,458	13,889	4,628	18,517	2,817	228,518	-	228,518	110%	
6.3.0 - Design and implement tangible on-the-ground measures which include building the private sector	4,799,900	70,000	1,684,341	1,264,000	3,851,651	476	76,193	207,475	283,668	307,068	723,301	1,036,369	668,111	1,174,848	1,842,960	1,832,393	4,995,866	506,069	5,501,935	115%	
6.4.0 - Build capacity in the monitoring and maintenance of the scaled-up measures	385,000	5,000	25,000	190,000	220,000	-	104	104	104	124	124	124	68,162	48,926	117,088	4,262	121,579	182	121,761	32%	
6.5.0 - Mainstream climate and disaster risk into national sector-based policies, plans and budgets	492,300	5,000	173,000	173,000	220,000	-	27,894	26,208	54,102	47,121	28,164	75,285	333	46,734	47,067	-	176,454	-	176,454	36%	
6.6.0 - Sharing and compiling of lessons learnt and wise practices	200,000	-	150,000	290,000	440,000	-	198	50	248	248	50	248	248	6,745	6,989	285,867	293,104	-	293,104	147%	
Subtotal Activity costs	6,270,480	205,000	1,964,341	2,156,424	5,214,075	159,447	115,246	239,852	355,098	405,868	819,712	1,225,581	795,298	1,336,976	2,132,274	2,148,144	6,020,544	511,563	6,532,107	104%	
Subtotal Output 2 - SPC	8,220,180	374,000	1,161,439	2,549,379	2,445,069	270,061	196,330	385,507	581,857	562,711	1,058,973	1,621,694	1,101,302	1,889,744	2,691,046	2,372,293	7,537,941	571,511	8,109,452	99%	
Total direct costs	11,621,920	1,240,275	1,555,842	3,553,624	2,960,395	931,036	432,942	308,125	599,255	907,380	840,296	1,415,991	2,356,287	1,365,558	2,112,251	3,480,809	2,880,721	9,964,148	837,688	10,551,836	91%
Total administrative cost (max. 7%)	815,335	66,819	103,909	248,747	651,702	30,344	21,662	41,770	63,432	58,628	99,164	157,792	95,993	147,860	243,854	201,834	697,256	41,138	738,394	91%	
Total costs	12,790,000	1,327,094	1,664,750	3,802,271	3,167,623	966,178	463,206	329,707	641,025	970,812	899,924	1,515,155	2,414,078	1,464,551	2,260,111	3,724,662	3,088,565	10,651,404	826,826	11,290,231	88%
EXECUTION RATE ON OVERALL BUDGET AS AT 31ST JULY 2023														88%							

FIGURE 3. Statement of income and expenditure for the period 1 January 2019 to 31 July 2023

Project expenditure rates were initially low but increased as the implementation phase progressed (see Figure 4).

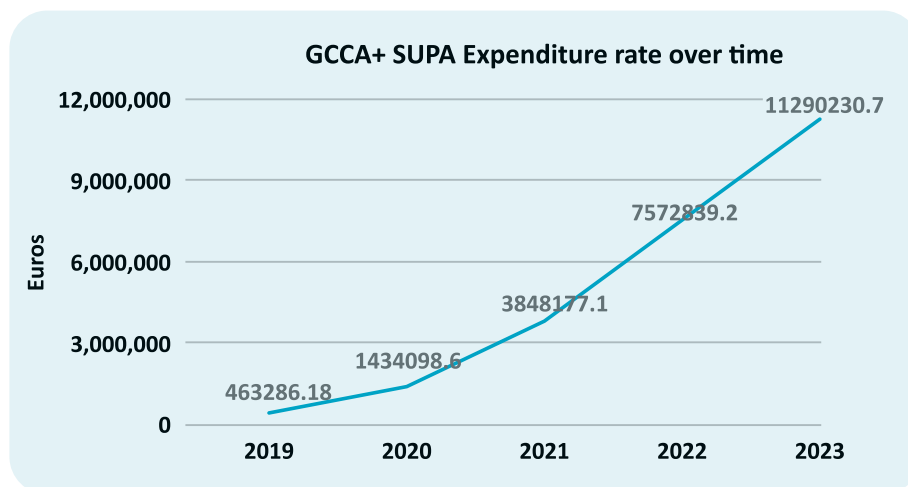


FIGURE 4. Project expenditure rate over time

## 1.10 Project team

At the peak of the implementation period, the project core team comprised the following positions:

### PMU (housed at SPC):

- Project manager
- Project finance manager
- Finance and administrative assistant (3 positions)
- Communications officer
- Digital communications assistant

### Output 1 (housed at SPREP):

- Team leader and impacts analysis adviser
- Information research assistant
- Finance assistant

### Output 3 (housed at SPC):

- Project implementation officer (3 positions)
- Technical officer (2 positions)
- Project engineer

Annex 2 presents the list of position holders and the duration of their employment. At SPC, the PMU and the output 3 team were based in the Geoscience, Energy and Maritime Division (GEM), under the Georesources and Energy Programme. At SPREP, the output 1 team was based in the Climate Change Resilience Programme.

National consultants were hired to assist with data collection for the impact analysis (output 1) over the period 2021–2023 (see Annex 2).

National coordinators for output 3 were recruited in each country by mid-2020 and continued to the end of the implementation period (see Annex 2 for details). They played a key role in the delivery of the project activities, especially during the period from March 2020 to mid-2022 when the COVID-19 pandemic restricted travel in the Pacific region. In Kiribati, Palau and Tonga, project finance assistants were also recruited.

## 2. Achievements

This section presents the main achievements of the GCCA+ SUPA project as follows:

- Development of a methodology for impact analysis (output 1).
- Development of criteria for scaling up climate change adaptation in development sectors.
- Scaling up of climate change adaptation measures in development sectors (output 3).
- Application of a people-centred approach to climate change adaptation.
- Communications and visibility.
- Verifiable evidence showing achievement of the logical framework indicators.

### 2.1 Development of a methodology for impact analysis: output 1

This activity was led and implemented by SPREP under output 1, in collaboration with SPC (output 3) and USP (output 2).

Supporting national decision-making such that new climate change adaptation interventions are designed and implemented with sustainability at the forefront of the process requires looking back and analysing the impact of past interventions.

The purpose of the impact analysis methodology was to inform target groups about best practices and to promote more effective and sustainable interventions in the future. The target groups included policy-makers, disaster risk reduction managers, public health development practitioners, budget planners in national and local authorities, regional organisations, locally based and international non-government organisations (NGOs), and interest groups in the public–private sector.

Expressions of interest were sought from the 10 countries participating in the GCCA+ SUPA project, and four trial countries with a history of adaptation and a sound level of adaptive capacity were selected: Cook Islands, FSM, Palau and Tonga. Consultants were recruited from each country to help with data collection and analysis over the period 2021–2022. For three of the countries, the consultants represented NGOs: Cook Islands, Korero o te Orau; FSM, Micronesia Conservation Trust; and Palau, Palau Conservation Society. A private consultant was recruited for Tonga.

A framework for the methodology was developed with four criteria:

- **Effectiveness:** The extent to which the project's results were attained and the project's specific objectives achieved.
- **Sustainable social and behavioural changes:** A theory of change which enables stakeholders to embed an intervention within a larger strategy and articulate a vision of meaningful social change.
- **Successful lessons and practices:** How vulnerable groups (persons with disabilities, elderly, women, youth, migrants and others) were involved or had their livelihood improved by the intervention.
- **Overall sustainability:** The extent to which the completed climate change adaptation interventions continued after the project or intervention had been completed.

Developing the methodology was a four-stage process. The first stage involved an extensive literature review. This was followed by the selection of the sectors, identification of indicators and preparation of checklists, field data collection and social surveys. The four sectors selected were: agriculture (Palau), coastal protection (Tonga), marine resources (Cook Islands) and water security (FSM). The data were then compiled, analysed and snapshot reports prepared. A sample snapshot report for FSM is shown in Figure 5. The third stage of the methodology involved a review of the criteria, and the fourth stage was to finalise the methodology and share it with partner countries.

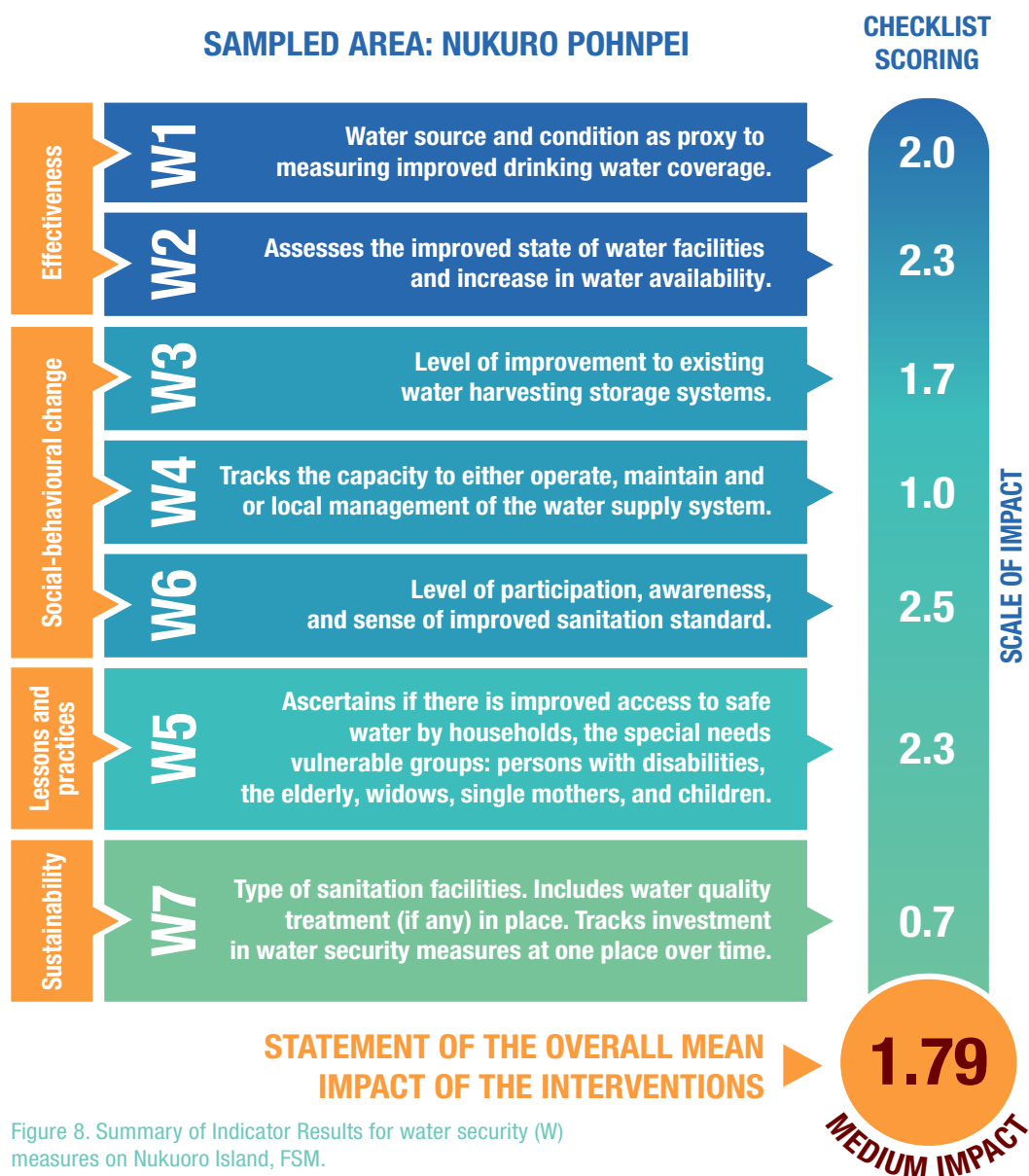


Figure 8. Summary of Indicator Results for water security (W) measures on Nukuoro Island, FSM.

Figure 8 sums up scores with the use of a **Checklist** for a range of characteristics rated during field observation of the water situation at Nukuoro. Overall mean impact rating was medium.

**Impact rating scale:** 1 Low impact, 0-25%  
 2 Medium impact, 26-50%  
 3 High impact, 51-75%  
 4 Very High impact, 76-100%

### FIGURE 5. Snapshot impact analysis report for FSM

A “Pacific impacts analysis methodology guide” has been prepared and is available on the project website.

An online practice learning series was launched in April and continued to August 2022 to engage with partner countries and to share the results of the impact analyses from the four trial countries. The 223 participants included representatives from the implementing agencies for the GCCA+ SUPA project and their national partners, and climate change practitioners from Cook Islands, FSM, Fiji, Kiribati, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands and Tonga. The series was an opportunity to learn from others about ways to track adaptation progress and efficacy and to understand the impacts of adaptation interventions.

Recognising that the application of the methodology required a significant amount of time and effort, a light version of the methodology was prepared. The original version of the methodology was renamed “Extended version of the impact analysis methodology” to distinguish it from the “Light version of the impacts analysis methodology”. Figure 6 shows the level of effort required for the two versions of the methodology.



FIGURE 6. Extended and light versions of the impact analysis methodology

A regional training was held in Fiji in November 2022 to introduce the impact analysis methodology, to give participants practice in the application of the light version of the methodology, and to launch the newly built impacts database. The training was held in collaboration with the Pacific Adaptation to Climate Change and Resilience (PACRES) project and involved participants from 12 countries.

A team from Fiji participated in the November 2022 workshop and applied the light version of the methodology at several sites in Fiji, covering agriculture, coastal protection, marine resources and water security sectors, after which snapshot reports were prepared.

A follow-up subregional applied training for the impacts analysis methodology and the impacts database was held in June 2023. This was held in collaboration with SPREP, the Pacific Climate Change Centre and the PACRES project. There were 25 participants from Cook Islands, Fiji, FSM, Tonga, Kiribati and Samoa with varying backgrounds in information management, climate change adaptation, and research and innovation. The training was an opportunity for practitioners to use and navigate the impacts database, where the information and data on the application of the impact analysis methodology in the participating countries are stored.

The impacts analysis methodology and database are hosted under the Pacific Climate Change Centre.

## 2.2 Development of criteria for scaling up climate change adaptation in development sectors

This activity was led and implemented by SPC under output 3, in collaboration with SPREP (output 1) and USP (output 2).

During the inception meeting in March 2019, there were extensive discussions around the concept of scaling up climate change adaptation interventions. There are four main approaches to scaling up adaptation to climate change in development sectors:

- Enhancement or strengthening of an existing measure.
- Expansion of an existing measure.
- Replication of a measure.
- Addition of a complementary measure.

These approaches were discussed in the context of the Pacific Islands development agenda and four criteria were developed. Countries agreed to apply the criteria, listed below, during their implementation of output 3 activities.

- Criteria 1: Previously implemented sustainable projects and activities that can be enhanced, expanded or replicated, or that can benefit from complementary measures, have been identified and analysed.
- Criteria 2: The scaled-up measure will align with national priorities, policies and plans, and contribute to achieving national development goals.
- Criteria 3: A flexible, people-centred approach that addresses the socio-economic needs of the most vulnerable groups can be applied to the new intervention.
- Criteria 4: A framework is in place to ensure the maintenance of the scaled-up measure and its long-term sustainability.

Countries then applied these criteria in their selection of sectors and activities for output 3.

The application of the criteria was reviewed during the September 2022 steering committee meeting and during



the final lessons learnt meeting in March 2023. It was agreed that the criteria provided a useful foundation for scaling up climate change adaptation measures as they enabled the continuity of national adaptation efforts.

Examples of ways in which the criteria have been applied to the scaling up of climate change adaptation interventions in the coastal protection, health, marine resources and water security sectors have been published in the booklet “Scaling up Pacific adaptation to climate change using a people-centred approach”, available on the project website.

## **2.3 Scaling up of climate change adaptation measures in development sectors: output 3**

This activity was led and implemented by SPC under output 3, in collaboration with SPREP (output 1) and USP (output 2).

Starting in 2019 and continuing into 2020, countries conducted stakeholder consultations and then prepared concept notes and PDDs. The concept notes identified the lead agency, the selected development sector, an outline description of the proposed project and how it addressed the criteria for scaling up climate change adaptation.

After approval of the concept notes by EUD, countries then proceeded to more extensive consultations and the preparation of PDDs. PDDs contained the following sections: introduction and background; process for project selection; detailed description of the activities (overall objective, specific objective and key result areas); institutional arrangements; risk management; exit strategy; logical framework; indicative budget; arrangements for financing; and work plan. The PDDs were signed by the implementing agencies and the SPC-GEM director. The PDDs were updated over the course of the implementation period to reflect major changes and particularly changes in budgets as unused travel funds from the PMU budget were transferred to country allocations.

The people-centred approach and PLANET checklist were applied to all activities throughout the implementation phase.

The subsections below present the key achievements in each of the four development sectors. Annex 3 presents further details for each country for outputs 1 and 3, including activity timelines, project highlights, challenges and lessons learnt.

### 2.3.1 Coastal protection sector

Two countries, Fiji and Tonga, selected the coastal protection sector. The planned activities in Fiji were only partially accomplished as the original plan to install flood control measures in the Soasoa drainage area was not completed, and substitute measures were put in place to provide heavy equipment for maintenance of the Soasoa drainage area. The activities in Tonga were fully delivered despite the impact and damage caused by the January 2022 tsunami. Table 3 summarises the key achievements in the coastal protection sector.

**TABLE 3. Key achievements in the coastal protection sector**

Fiji	
Project site	Soasoa, Vunivau, Basoga watershed, Labasa District, Macuata Province, Vanua Levu
Beneficiaries	2382 direct and 35,947 indirect beneficiaries
Key achievements	<ul style="list-style-type: none"> <li>▪ Preparation of an integrated watershed management plan for the Soasoa, Vunivau, Basoga watershed and initial implementation of the plan.</li> <li>▪ Provision of heavy equipment (an excavator and prime mover/low bed trailer) for the Ministry of Agriculture and Waterways (MoAW) to undertake routine maintenance of the Soasoa drainage system and to respond rapidly and effectively to emergency situations in the watershed.</li> <li>▪ Development of a costing methodology for climate change adaptation measures included in the Fiji National Adaptation Plan (NAP), and training for government agencies to prepare comparable cost estimates for the 160 measures included in the NAP.</li> </ul>
Tonga	
Project site	North coast of Tongatapu
Beneficiaries	12,268 direct and 62,052 indirect beneficiaries
Key achievements	<ul style="list-style-type: none"> <li>▪ Conceptual design and preliminary costing plan for coastal protection along the north coast of Tongatapu.</li> <li>▪ A 1.35-km-long coastal revetment at Kanokupolu was widened and heightened, non-return valves replaced, and a boat ramp was rebuilt as a remedial measure following the January 2022 tsunami.</li> <li>▪ A mangrove nursery was established at Nukunuku with arrangements in place for the Nukunuku youth group to continually restock and maintain the nursery. More than 8000 mangrove and coastal vegetation seedlings were planted along 30 hectares of coastal land in northwestern Tongatapu, contributing to the government’s commitment of one million trees planted by 2030.</li> <li>▪ Application of a flexible people-centred approach involving communities, town officers, youth, elders and women in ecosystem-based coastal protection measures and the sharing of traditional knowledge.</li> </ul>

The main lessons learnt were that: (i) large infrastructure projects require a longer timeframe and a full feasibility and cost–benefit analysis before commencing full design and implementation; and (ii) a flexible approach is encouraged in coastal protection interventions as decisions and needs are likely to change between the design and implementation phases. Careful attention to planning for natural disasters in risk assessment and scheduling is necessary in the design phase.

## 2.3.2 Health sector

Two countries, Marshall Islands and Palau, selected the health sector. The planned activities in both countries were fully delivered. Table 4 summarises the key achievements in the health sector.

**TABLE 4. Key achievements in the health sector**

Marshall Islands	
Project site	Majuro and Jaluit Atolls
Beneficiaries	17,274 direct and 41,139 indirect beneficiaries
Key achievements	<ul style="list-style-type: none"> <li>▪ An existing Community Lifestyle Programme which focused on community health in Majuro Atoll was scaled up. A more holistic approach to climate resilience was adopted by adding sustainable agriculture activities and expanding the programme to the Delap-Uliga-Darrit (DUD) corridor on Majuro Atoll and to Jaluit Atoll.</li> <li>▪ Activities included: agricultural assessments; establishment of 147 home gardens with raised beds and wicking systems for irrigation; construction of a greenhouse in Jaluit Atoll; 21 home gardening training sessions; training of 18 health workers; equipment for health screening; 13 training events on nutrition, food safety and the preparation and cooking of locally grown vegetables; establishment of 15 exercise groups with different activities for men, women and youth; and the airing of 15 radio shows featuring healthy lifestyles and climate change.</li> <li>▪ The Climate Change and Health Policy and Revised Action Plan (NCCHP v2) was prepared, endorsed and launched in 2022. It includes a prioritised five-year action plan with indicative costs and lead agencies identified.</li> </ul>
Palau	
Project site	Aimeliik, Airai, Ngardmau, Ngaremlengui and Ngatpang States, and all states in Palau
Beneficiaries	3606 direct and 14,055 indirect beneficiaries
Key achievements	<ul style="list-style-type: none"> <li>▪ A vehicle, equipment and test kits were provided to the Division of Environmental Health, which provided training for the public and state officials on water quality monitoring and conducted household vector assessments. The vector surveillance programme now covers 80% of Koror State and the states in Babeldaob.</li> <li>▪ Rainwater harvesting systems were installed at the emergency shelters in Aimeliik, Airai, Ngardmau, Ngaremlengui and Ngatpang, and a memorandum of understanding (MoU) was signed with the State Governors to cover maintenance.</li> <li>▪ The Ministry of State Radio Station (Eco Paradise FM) is now fully operational with the support of radio equipment and a vehicle provided by the project. The radio station has a schedule involving nine different agencies in live broadcasts covering climate change, disaster risk, weather, presidential briefings, culture and education notices.</li> <li>▪ The Ministry of Education programme for Grades 7 and 9 school students to monitor coastal pollution, and specifically micro, meso and macro plastics, has been expanded and strengthened and is now integrated into the school science curriculum.</li> </ul>

The main lessons learnt were that: (i) the multi-sector agency approach adopted by Palau strengthened the existing National Climate Change Coordination Committee and the implementation of the national climate change policy and action plan, which in turn allowed for leveraging off other project activities; and (ii) utilising the final year of project implementation to focus on the formal and informal handover of key activities will ensure continuity of at least some of the key activities.

### 2.3.3 Marine resources sector

One country, Cook Islands, selected the marine resources sector. The planned activities were fully delivered. Table 5 summarises the key achievements in the marine resources sector.

**TABLE 5. Key achievements in the marine resources sector**

Cook Islands	
Project site	Aitutaki and islands in the Southern Group
Beneficiaries	7500 direct and 6000 indirect beneficiaries
Key achievements	<ul style="list-style-type: none"> <li>▪ The land-based clam nursery and the seawater supply system at the Aitutaki Marine Research Centre (AMRC) were rebuilt, and the centre was refurbished with new survey equipment, laboratory equipment and IT electronic equipment.</li> <li>▪ Marine monitoring activities were conducted to revive the giant clam population in the Aitutaki lagoon.</li> <li>▪ Marine traditional knowledge, including fishing practices, has been compiled with the assistance of elders and fishers in the outer islands of Aitutaki Atiu, Mangaia, Mauke and Mitiaro. A teacher’s guide and other materials have been prepared and training provided to teachers to deliver this information to school students through extracurricular activities.</li> </ul>

The main lesson learnt was that daily independent engineering oversight of infrastructure projects during the construction phase is necessary.

### 2.3.4 Water security sector

Five countries, FSM, Kiribati, Nauru, Niue and Tuvalu, selected the water security sector. The planned activities in all five countries were fully delivered. The water security measures included a range of activities for the supply and storage of desalinated water and the storage of rainwater in main islands and outer islands. Table 6 summarises the key achievements in the water security sector.

**TABLE 6. Key achievements in the water security sector**

<b>FSM</b>	
Project site	Northwest islands of Chuuk State: Polowat, Pulusuk, Pullap and Tamatam
Beneficiaries	3029
Key achievements	<ul style="list-style-type: none"> <li>▪ Twenty-nine 10,200-L rainwater harvesting systems with all appurtenances were installed across the four islands with the distribution as follows: Pullap (10), Pulusuk (8), Polowat (8) and Tamatam (3). The systems were installed at church buildings except in Polowat where they were installed at the school and at selected households.</li> <li>▪ Six hands-on trainings on rainwater system installations and maintenance were delivered, involving 70 community members and local contractors.</li> <li>▪ Environment Protection Agency (EPA) Chuuk State endorsed the design of the rainwater harvesting systems prepared by the project for future public potable water installations in remote communities and is making plans to replicate similar water security activities in other outer islands in the state.</li> <li>▪ Water, sanitation and hygiene (WASH) activities and training on water management were delivered to a total of four schools and 280 students. Buckets and basic hand washing basins were distributed to the schools on the four islands.</li> </ul>
<b>Kiribati</b>	
Project site	Banaba Island and Beru Island
Beneficiaries	2051
Key achievements	<ul style="list-style-type: none"> <li>▪ A new, fit-for-purpose building and facility for desalination units (originally housed in a temporary location) was constructed in Banaba Island. New pumps and water storage tanks were installed, together with tanks for additional rainwater storage capacity using the roof of the new building as a catchment.</li> <li>▪ Community members were involved in the demolition of the old building and the construction of the new facility. An MoU was signed with the Banaba Mayor, Island Council and Ministry of Infrastructure and Sustainable Energy (MISE) to confirm responsibilities and management of the new measures.</li> <li>▪ A rain gauge was installed on Banaba Island, allowing data to be sent in real time to the Kiribati Meteorological Services for the production of forecasts for improved drought management.</li> <li>▪ Eighty solar-powered pumps to pipe the water from existing storage sources directly to community buildings in Beru Island were delivered to South Tarawa for onward transportation to Beru Island by MISE.</li> </ul>

<b>Nauru</b>	
Project site	Fourteen districts in Nauru
Beneficiaries	500
Key achievements	<ul style="list-style-type: none"> <li>▪ The application of the people-centred approach, incorporating physical and socio-economic criteria, was successfully used to identify the most vulnerable households and was accepted by the government and residents.</li> <li>▪ Ninety-six polyethylene water tanks (74 x 10,200 L and 22 x 5300 L) were installed at 96 households for the storage of desalinated water. Beneficiaries have signed agreements confirming their responsibility for maintenance of the systems and have been provided with the necessary tools.</li> <li>▪ Additional accessories to connect the water tanks to the recipient houses were provided as part of a partnership with the Government of Nauru, which will assist with installation.</li> </ul>
<b>Niue</b>	
Project site	Nine villages in Niue
Beneficiaries	500
Key achievements	<ul style="list-style-type: none"> <li>▪ A village survey in 2021 identified 157 households across nine villages requiring partial or full installation of rainwater harvesting systems. Fifty priority households were identified based on their vulnerability to power disruptions, proximity to village water sources, and households with vulnerable members such as persons with disabilities or elderly persons.</li> <li>▪ Fifty household installations were completed, and maintenance training was delivered by the Ministry of Infrastructure. Household maintenance agreements were signed with the selected households.</li> <li>▪ Water quality laboratory equipment and a vehicle were provided to the Public Health Department to strengthen the water quality monitoring programme. A training workshop on water quality and certification training on the shipment of hazardous and infectious substances were conducted.</li> </ul>
<b>Tuvalu</b>	
Project site	Funafuti
Beneficiaries	6716 direct and 3929 indirect beneficiaries
Key achievements	<ul style="list-style-type: none"> <li>▪ New rainwater harvesting systems adding 122.4 kL storage capacity were installed at the Fetuvalu Secondary School and Seventh Day Adventist Primary School. Training on maintenance and water management was provided to teachers and students from these two schools and other schools.</li> <li>▪ Materials were provided for the installation of hand washing facilities at the Olave and Vaiaku preschools in Funafuti.</li> <li>▪ A solar-powered, mobile, 20 m<sup>3</sup>/day desalination unit was provided and installed in Funafuti. This unit can be shipped to outer islands in times of drought. Installation and commissioning of the unit, including operations and maintenance training, were conducted.</li> <li>▪ Two 10,000-L water tanker trucks were delivered to Funafuti to improve water delivery to residences, schools, businesses and government facilities.</li> </ul>

Key lessons learnt for the water security sector are as follows (further lessons are included in the country activities in Annex 3).

1. Engagement of community members in the installation of rainwater harvesting systems is important to empower communities, instil their sense of ownership and provide for long-term maintenance.
2. Adopting a flexible and adaptive project management approach allowed for Kiribati, and MISE in particular, to complete project activities in a short two-year time period, despite having to re-design the project scope and select a new project site midway through the project.
3. Consideration of the availability of replacement materials and spare parts as well as servicing requirements are important criteria to include in the design of measures.
4. Local suppliers should be encouraged to bid in the international procurement of construction and plumbing materials for local projects.
5. Increased shipping costs and potential shipment delays need to be factored into the planning stages of new projects to mitigate possible implementation risks.

## Photos illustrating scaling up of infrastructure measures



*Refurbished clam aquaculture tanks at the Aitutaki Marine Research Centre, Cook Islands*



*Resident fills a bucket with desalinated water from the new storage tank, Nauru*



*New rainwater harvesting system at Polowat Elementary School, Polowat Island, Chuuk State, FSM*



*Household rainwater harvesting system, Niue*



*Handover of heavy machinery for drainage maintenance to Ministry of Agriculture and Waterways, Fiji*



*Newly equipped national radio station with capacity to broadcast Eco-Paradise FM throughout Palau*



*New water facility building, Banaba Island, Kiribati*



*Completed rock revetment at Kanokupolu, Tonga*



*Completed greenhouse, Jaluit Atoll, Marshall Islands*



*Handover of water tanker trucks for transporting desalinated water in Funafuti, Tuvalu*



## Photos illustrating scaling up of mainstreaming activities



*Booklet describing the use of the people-centred approach to scale up climate change adaptation.*



*National climate change and health policy and revised action plan, Marshall Islands*



*Integrating traditional knowledge and climate resilience into the extracurricular school system in the Cook Islands*



*Communications plan for the Ministry of State, Division of Communications and Media Services, Palau*



*Soasoa watershed management plan, Fiji*



*Conceptual design and costing for coastal protection, north coast of Tongatapu, Tonga*

## 2.4 Application of a people-centred approach to climate change adaptation

This activity was led and implemented by SPC under output 3, in collaboration with SPREP (output 1) and USP (output 2).

This approach places people and their environment at the centre of both climate change adaptation and development project planning, implementation, decision-making, monitoring and reporting. The approach consists of four pillars: human rights, gender and social inclusion, Pacific culture, and environmental sustainability. The unique social and cultural fabric of each Pacific Island country or territory affects how these pillars are interpreted for local application.

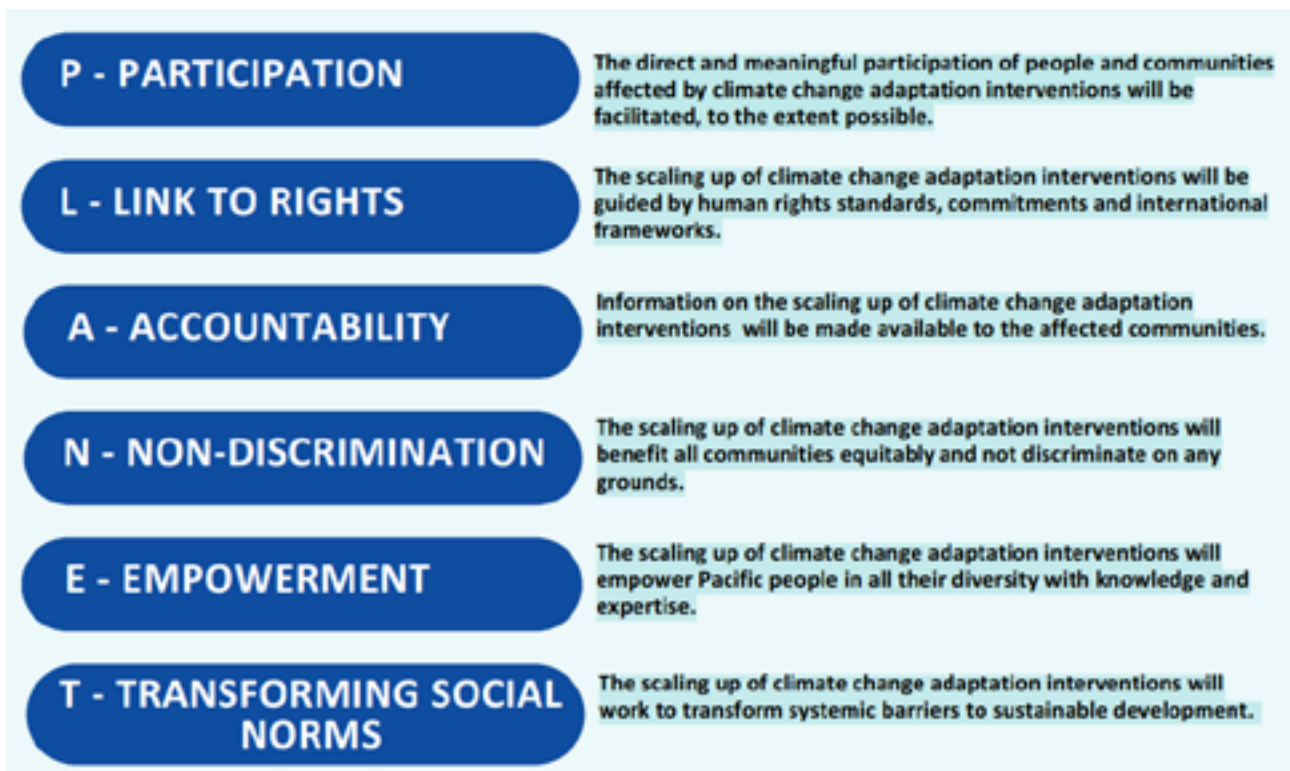
Six principles guide the implementation of a people-centred approach to development: participation, link to rights, accountability, non-discrimination, empowerment, and transforming social norms (together known as PLANET). The application of these principles helps to maximise the positive social and environmental outcomes of development projects.

These guiding principles have been combined into a PLANET checklist for development projects (see Figure 7). The checklist provides for flexibility in project management so that depending on the project's context, more attention might be paid to particular guiding principles.

The people-centred approach and the PLANET checklist were applied to all activities throughout the GCCA+ SUPA project. During the early in-country consultation phase from 2019 to mid-2020, training in the people-centred approach was conducted. Specific national activities relating to the PLANET checklist and the implementation of the people-centred approach were documented and reported on in each progress and annual report. The most frequently used guiding principles were participation, non-discrimination and accountability. As noted in section 1.7 of this report, the application of the people-centred approach throughout the GCCA+ SUPA project was identified as a "Good Practice".

Examples of ways in which the people-centred approach was applied in the different sectors have been published in the booklet "Scaling up Pacific adaptation to climate change using a people-centred approach", available on the project website.





**FIGURE 7. The people-centred approach and the PLANET checklist**

One of the key metrics required in development projects is to provide gender-aggregated data relating to consultations, training and capacity building, and implementation of the project activities. With such a large and diverse project as GCCA+ SUPA, this is difficult to do with any accuracy. Gender aggregated data were reported in each progress and annual report, and a compilation is presented in Table 7. However, it is most likely that the total figures represent an overestimation as in some cases the same people were involved year after year. The data show that the ratio of females to males was 49%:51%.

**TABLE 7. Gender aggregated data for consultations, training and participation in on-the-ground activities**

Activity	Total	Female	Male
Regional and subregional consultations and meetings	762	428	334
National consultations, trainings, participation in on-the-ground project activities	8903	4408	4495
<b>Total</b>	<b>9782</b>	<b>4829</b>	<b>4953</b>

## 2.5 Communications and visibility

This activity was led and implemented by SPC under output 3, in close collaboration with SPREP (output 1) and with USP (output 2).

A communications plan was prepared in 2019 and updated throughout the implementation period. The plan provided a framework for widespread and consistent messaging and information on project activities, taking into account the roles of the three implementing organisations (SPC, SPREP and USP) and following EU visibility guidelines.

A website was launched in 2021, <https://gccasupa.org>, hosted on an external server to facilitate the presentation and visibility of the overall project as one action, even though implementation was led by three different partners. The website was regularly updated. In 2022 there were 8183 visits to the site, with the highest number of views coming from Australia, USA and Fiji.

The main communication products produced over the course of the project and presented on the website were fact sheets, web stories and videos. Many of the web stories and videos were retransmitted through the GCCA+ Community site. The fact sheets presented a short overview of the country activities and were updated regularly (see Figure 8).



**FIGURE 8. Schematic showing national project fact sheets**

Other documents were also uploaded to the regional and country pages on the website, including publications, reports, consultation activities, policies and plans.

Videos were found to be the most effective and far-reaching form of communication (see Table 8 for a list of titles and Annex 4 for links to the videos). The videos ranged from showcasing specific project activities, such as youth climate change resilience activities in Cook Islands, Palau and Tonga, to a longer-term approach, such as whether to retrofit or relocate infrastructure in Fiji and scaling up coastal protection in Tonga over a 10-year period.

**TABLE 8. List of GCCA+ SUPA videos**

<b>Overall project videos</b>
<ul style="list-style-type: none"> <li>▪ GCCA+ SUPA Learning from the past, preparing for the future</li> <li>▪ Making a difference: Pacific Islands intensifying their efforts to adapt to climate change</li> <li>▪ Prioritising the needs of Pacific communities to adapt to climate change</li> </ul>
<b>Subregional video (Cook Islands, Palau, Tonga)</b>
<ul style="list-style-type: none"> <li>▪ Empowering youth to conserve marine ecosystems</li> </ul>
<b>National videos</b>
<ul style="list-style-type: none"> <li>▪ Cook Islands trial experience – impacts analysis methodology reflection</li> <li>▪ Connecting to strengthen climate change resilience in Cook Islands</li> </ul>
<ul style="list-style-type: none"> <li>▪ Adopting a people-centred approach: Outer island communities in FSM leading the way with water security</li> </ul>
<ul style="list-style-type: none"> <li>▪ Planning Fiji’s climate resilient infrastructure: Retrofit or relocate</li> <li>▪ Building community resilience – Soasoa watershed, Fiji</li> <li>▪ Building community resilience: Planting vetiver grass, Fiji</li> </ul>
<ul style="list-style-type: none"> <li>▪ Growing our own food for healthy living in the Marshall Islands</li> <li>▪ Healthy lifestyles in a changing climate – Marshall Islands</li> </ul>
<ul style="list-style-type: none"> <li>▪ Securing Nauru’s water lifeline for the most vulnerable people</li> <li>▪ Maintaining desalinated water storage tanks in Nauru</li> </ul>
<ul style="list-style-type: none"> <li>▪ Sharing the same mindset – keeping the environment clean (Palau)</li> <li>▪ Palau students address plastic pollution in the marine environment</li> <li>▪ Palau trial experience – impacts analysis (IA) methodology reflection</li> </ul>
<ul style="list-style-type: none"> <li>▪ Scaling up coastal protection in Tonga: 2014–2023</li> </ul>

Visibility products such as banners, T-shirts, bags, water bottles and stickers were produced and distributed. Climate change policies and sector plans produced by the project were also printed and distributed.

## 2.6 Verifiable evidence showing achievement of the logical framework indicators

Table 9 presents the results chain of the project logical framework, as shown in Annex 1, together with the evidence showing how the indicators were achieved. All the indicators were achieved, with some being exceeded.

**TABLE 9. Verifiable evidence showing achievement of the logical framework indicators**

Verifiable indicators
<b>Overall objective: To enhance climate change adaptation and resilience in 10 Pacific Island countries</b>
<p><b>INDICATOR</b></p> <p>1. An average 10% increase from the baseline in the number of people benefitting in seven countries.</p> <p><i>Indicator exceeded</i> – achieved in nine of the 10 countries and partially achieved in Nauru.</p> <p><b>VERIFICATION</b></p> <ul style="list-style-type: none"> <li>▪ Cook Islands: The population of Aitutaki (1800) benefitted from the upgrade of the Aitutaki Marine Research Centre through its tourism and outreach activities, opportunities for small business operators and enhancement of marine resources, e.g. clam aquaculture.</li> <li>▪ FSM: The combined population of Pullap, Pulusuk and Polowat (3029) in Chuuk State benefitted from the new community water storage systems.</li> <li>▪ Fiji: Communities in the Soasoa, Vunivau, Basoga watershed area (2382) benefitted from the Soasoa watershed management plan and its preliminary implementation.</li> <li>▪ Kiribati: The entire population of Banaba Island (268) benefitted from the infrastructure provided for housing the desalination units and the additional rainwater harvesting systems.</li> <li>▪ Marshall Islands: The entire population of Jaluit Atoll (1788) benefitted from the community health and agriculture activities.</li> <li>▪ Nauru: 96 households (5%) out of a total of 2021 households benefitted from the desalinated water storage tanks.</li> <li>▪ Niue: 50 households (10%) of a total of 525 households benefitted from the full installation of the rainwater harvesting systems.</li> <li>▪ Palau: The population of Aimeliik, Airai, Ngardmau, Ngaremlengui and Ngatpang States (3606) benefitted from the health and water security measures, and the entire population of Palau benefitted from the upgrade of the radio station.</li> <li>▪ Tonga: The entire population of Tongatapu (74,320) benefitted from the coastal protection plan, and the 354 people of Kanokupolu benefitted directly from the coastal protection revetment.</li> <li>▪ Tuvalu: The entire population of Funafuti (6320) benefitted from the water security infrastructure provided (desalination unit, rainwater harvesting systems and the water tanker trucks).</li> </ul>

## Verifiable indicators

**Strategic objective: To strengthen the implementation of sector-based, but integrated, climate change and disaster risk management strategies and plans.**

### INDICATORS

1. Four countries with new/revised sector plans with climate and disaster risk in place.
2. One country with new/revised sector plans with climate and disaster risk endorsed.
3. One country with new/revised sector plans with climate and disaster risk being implemented.

*Indicators achieved.*

### VERIFICATION

- Three countries (four plans/policies): Soasoa watershed management plan (Fiji); National Adaptation Plan costing methodology (Fiji); Climate Change Health Policy and Action Plan (Marshall Islands); Conceptual coastal protection plan and costing for the north coast of Tongatapu (Tonga).
- Two countries: Soasoa watershed management plan (Fiji); Climate Change Health Policy and Action Plan (Marshall Islands).
- Two countries: Soasoa watershed management plan (Fiji); Climate Change Health Policy and Action Plan (Marshall Islands) with revised sector plans/policies/action plans endorsed.

**Output 1: Climate and disaster risk information, knowledge management, monitoring and strategic planning capacities strengthened.**

*Short title: Strengthen strategic planning at national levels*

### INDICATORS

- Status of Pacific-specific methodologies for objective assessment of longer-term impacts of past climate and disaster risk interventions.
- Two countries with an impacts database.
- One country applying the impacts database to inform decision-making.
- Report on analysis of impact of the climate change and disaster risk management actions in the target countries.

*Indicators achieved.*

### VERIFICATION

- A Pacific-specific methodology for impact analysis is now in place (an extended version and a short version).
- Four countries (Cook Islands, FSM, Palau and Tonga) have an impacts database.
- Two countries (FSM and Palau) are applying the impacts database.
- Report prepared on the impact analysis in four countries.

## Verifiable indicators

**Output 3: Strategic and local interventions for climate change adaptation and mainstreaming scaled up in up to five sectors.**

**Short title: Scale up resilient development measures in specific sectors**

### INDICATORS

- List of measures with potential for up-scaling based on national and local consultations in target geographical areas.
- Eight countries with adaptation scaling-up measures implemented.
- Three sectors with adaptation scaling-up measures implemented.
- Three countries with on-the-ground climate and disaster risk interventions empowering women and vulnerable groups.
- Ten new on-the-ground climate and disaster activities specifically empowering women and vulnerable groups.
- Two countries with measures that combine hard structures and ecosystem approaches.
- Two sectors that combine hard structures and ecosystem-based approaches.
- Two climate/disaster risk private sector interventions in target geographical areas.

**Indicators achieved.**

### VERIFICATION

- Measures with potential for up-scaling based on national and local consultations in target geographical areas identified and selected in PDDs.
- Nine countries with adaptation scaling-up measures implemented. The only exception was Fiji where the scaling-up measures were only partially achieved.
- Four sectors with adaptation scaling-up measures implemented: coastal protection, health, marine resources and water security.
- Three countries with on-the-ground climate and disaster risk interventions empowering women and vulnerable groups: Marshall Islands, Nauru and Tonga.



## Verifiable indicators

### Output 3: Strategic and local interventions for climate change adaptation and mainstreaming scaled up in up to five sectors.

#### *Short title: Scale up resilient development measures in specific sectors*

- Ten new on-the-ground climate and disaster activities specifically empowering women and vulnerable groups:
  - Cook Islands (two activities): Training of youth in free diving and sharing traditional knowledge on marine practices between elders and youth.
  - FSM (one activity): Adjusting design of infrastructure to accommodate local customs for women.
  - Marshall Islands (three activities): Exercise groups for women, nutrition training for parents of children with disabilities, and targeting persons with non-communicable diseases for establishment of home gardens.
  - Nauru (one activity): Selection of households for water storage tanks focused on numbers of women, elders and youth in each household.
  - Niue (one activity): Involving women in maintenance training.
  - Palau (one activity): Focusing on youth in monitoring coastal ecosystem pollution.
  - Tonga (two activities): Planting of mangroves with youth and women and sharing of traditional knowledge between elders and youth.
- Two countries with measures that combine hard structures and ecosystem approaches: Cook Islands and Tonga.
- Two sectors that combine hard structures and ecosystem-based approaches: marine resources and coastal protection.
- Two climate/disaster risk private sector interventions in target geographical areas:
  - Palau Conservation Society led the monitoring and evaluation workshop in Palau.
  - In the Marshall Islands, the Canvasback Wellness Centre implemented the lifestyle and climate change resilience activities.

## 3. Lessons learnt

### 3.1 Compilation of lessons learnt

Challenges to project implementation and mitigation measures were compiled throughout the implementation period, included in annual and progress reports, and discussed during steering committee meetings.

In March 2023 a final steering committee and lessons learnt meeting was held in Palau. The final two days of the meeting consisted of panel sessions, led by national representatives, and focused on the following topics:

- Should impact assessment of past projects become a prerequisite for new projects or activities?
- How do policies inform and guide on-the-ground scaling-up activities?
- Challenges in scaling-up infrastructure in SUPA.
- How have our communities benefitted from activities under the GCCA+ SUPA project and are these benefits sustainable?
- Are the GCCA+ SUPA criteria for scaling up climate change adaptation relevant and useful?

At the same meeting a closed session was held for countries only to discuss the challenges with the implementation of GCCA+ SUPA and how these were addressed.

In June 2023 the implementing partners, SPC, SPREP and USP, met in Fiji to discuss lessons learnt.

National lessons learnt are included in Annex 3 and summarised in section 2.3 of this report.

The lessons learnt that emerged from all these activities have been compiled and summarised in this section. During the closure period, lessons learnt have been shared with EUD, within SPC (especially the GEM Division and the Human Rights and Social Development Division) and within SPREP.

### 3.2 Application of the people-centred approach

- The ROM review identified the people-centred approach as a “Good Practice” and noted that its use is vital for Pacific communities which continue the tradition of communal local governance. The countries endorsed the use of the people-centred approach at the final lessons learnt meeting.
- Highlighting the people-centred approach from the pre-planning phase of a project through to its implementation and closure ensures ownership of the adaptation intervention by the communities and stakeholders involved.
- Application of the people-centred approach requires the expertise of specialists skilled in community liaison, social sciences, gender, human rights and environmental safeguards from the design phase of a project to its handover. This may add to the duration of the intervention and its cost but will assist in addressing any challenges and obstacles as they emerge.
- The PLANET checklist is a very useful tool and guide for implementing a people-centred approach to scaling up Pacific adaptation. It helps implementing partners monitor and evaluate the ways in which a people-centred approach is applied to an intervention and offers flexibility, allowing focus to be placed on the aspects of the people-centred approach that are most relevant to the local context of the intervention.

### 3.3 Application of the impact analysis methodology in strategic planning

- Application of the impact analysis methodology (the extended version or the light version) and reviewing the information on the impacts database will assist national strategic planning.
- Use of the impacts analysis methodology in the pre-design phase of a climate change adaptation intervention will ensure that challenges and risks encountered in previous interventions are avoided or mitigated.
- There is a need to raise awareness of the impact analysis methodology and database as it is a relatively new tool.

### 3.4 Application of the criteria for scaling up climate change interventions

- Applying the four criteria for scaling up climate change interventions will assist countries and the region move towards a more programmatic approach to climate change adaptation and ensure the continuity of national adaptation efforts.

### 3.5 Capacity building

- Capacity-building, both formal and informal, remains a critical and continual need for scaling up Pacific adaptation to climate change.
- Reporting on capacity-building activities needs to go beyond total numbers and gender-aggregated data and reflect other characteristics such as age, occupation and disability (if any). Indicators reflecting how a particular capacity-building activity was incorporated into daily tasks or a person's job description need to be tailored into the reporting.

### 3.6 Project design and management

- Future regional interventions involving more than one Council of Regional Organisations in the Pacific (CROP) agency to have a more streamlined and cost-effective approach, with one agency as the lead partner and side agreements between the lead partner and complementary partners.
- Inclusion of a six-month inception phase in the design of future interventions to provide time for recruitment of the project team and confirmation of specific areas of activity, e.g. in the case of GCCA+ SUPA, the specification of the focus development sector.
- Collaboration with other related projects and interventions early in the project cycle to facilitate leverage as interventions near completion and are seeking ways to ensure sustainability.
- Using the last year of the project implementation period to design and put in place measures to continue the project activities, possibly in a reduced form, once the project and the funding finishes.
- Planning for the special circumstances faced by outer islands such as the need for charter arrangements to accommodate the lack of scheduled sea and air transportation, very high costs and difficult communications.
- Ensuring communication strategies are designed and implemented early in the project cycle.

### 3.7 Finance and procurement

- Providing for flexibility, such as through the use of the SPC service contract modality, was the countries' preferred form of delivery for contractual arrangements.
- Use of national policies and procedures for procurement was the countries' preferred option.
- Provision of training in the use and reporting requirements for the different SPC financial modalities (service contracts, grant agreements and direct procurement) to national project officers and those in national agencies responsible for government finance at the start of the project and throughout the implementation period.

### 3.8 Planning for future global disruptions

- Recognising the challenges posed by the COVID-19 global pandemic (including the 2.25-year-long travel disruptions, the resultant global supply chain disruptions, transportation challenges and increased costs of manufactured materials, commodities and energy), ensure planning for future global events is included in project design, budget and risk evaluation.
- Review the job description of national project officers to incorporate management skills as well as coordination.

### 3.9 Planning for scaling up infrastructure interventions

- Ensure the project timeframe is sufficient to effectively complete the two main phases of an infrastructure project: (i) conceptual design and feasibility, cost-benefit analysis, full final design, national regulatory approvals and permits; and (ii) construction, oversight and completion certificates.
- Provide skilled engineering personnel for daily oversight during the construction phase.
- Ensure five-year maintenance plans and budget allocations are in place, especially in main islands where government agencies have offices and equipment.
- In small outer islands, ensure community members play an active role in the construction of the adaptation measures, receive specific training and tools for maintenance, and that signed agreements are in place.

## 4. Conclusions

The GCCA+ SUPA project successfully laid the groundwork for scaling up climate change adaptation interventions in the Pacific by:

- Developing and testing an impact analysis methodology and sharing it widely, including with the PACRES project.
- Developing and testing criteria for future scaling up of climate change adaptation interventions and helping the region move from an ad hoc pilot project approach to a more programmatic approach.
- Implementing on-the-ground activities in four sectors and 10 countries based on the criteria for scaling up climate change adaptation interventions.
- Applying a people-centred approach throughout the project that provided ownership of the adaptation interventions by the communities and stakeholders involved.
- Building capacity, formal and informal, through all the above listed activities.

The ROM review showed the project met the evaluation criteria:

- Relevance
- Coordination, complementarity and EU-added value
- Intervention logic, monitoring & learning
- Efficiency
- Effectiveness
- Sustainability
- Cross-cutting issues
- Communications and visibility

The review also identified the people-centred approach as a “Good Practice”.

In addition, the project contributed to the following sustainable development goals:



Despite the challenges posed by the 2.25-year-long global pandemic, the project managed to deliver, or exceed, all the indicators shown in the logical framework within the project’s timeframe.

The statement of income and expenditure for the period 1 January 2019 to 31 July 2023 indicated an expenditure rate of 88%.

As the impacts of climate change continue to worsen and accelerate, the GCCA+ SUPA project has made a significant contribution to the future scaling up of the much needed climate change adaptation interventions in the Pacific region.

## ANNEX 1 Project logical framework

This logical framework presents the version included in the Delegation Agreement with additions to baselines and indicators as recommended in the ROM review.

Indicators	Baselines (2018)	Targets (2023)	Sources Means of verification	Assumptions
<b>Overall objective: To enhance climate change adaptation and resilience in 10 Pacific Island countries.</b>				
Number of people benefitting from scaled-up measures. (** EU RF Level 1, 20, 22, 24)	Local area population benefitting from the existing adaptation measure in 2018 in each country. <i>(Itemised in project design documents for each country)</i>	An average 10% increase from the baseline in number of people benefitting in seven countries.	National census data 2015 GCCA: PSIS final report and evaluation USP-GCCA annual reports Final reports from SPREP-PACC project Reports from other national and regional projects undertaking specific on-the-ground measures Pacific Climate Change Portal Pacific Disaster Net	
<b>Strategic objective: To strengthen the implementation of sector-based, but integrated, climate change and disaster risk management strategies and plans.</b>				
Number of countries with new/ revised sector plans with climate and disaster risk addressed. a. in place, b. endorsed, and c. being implemented. (** EU RF Level 2 # 23 – as many matches as many countries – based on the real improvements / results)	a. 0 b. 0 c. 0	a. Four countries with new/ revised plans. b. One country with new/ revised plans endorsed. c. One country with new/ revised plans actively implemented.	Institutional reviews for each country (e.g. USAID climate finance project) Review of sector policies, plans and budgets in line ministries Project reports Project evaluations National climate and disaster risk policies, plans and budgets Consultation reports GCCA: PSIS final report and evaluation	New funding continues to be made available to the Pacific Island countries.  National focus on climate and disaster resilient development is maintained.

Indicators	Baselines (2018)	Targets (2023)	Sources Means of verification	Assumptions
<b>Output 1: Climate and disaster risk information, knowledge management, monitoring and strategic planning capacities strengthened.</b>				
<b>Short title: Strengthen strategic planning at national levels</b>				
1.1 Status of Pacific-specific methodologies for objective assessment of longer-term impacts of past climate and disaster risk interventions.	1.1 0	1.1 A Pacific-specific methodology in place by 2021.	1.1 Pacific Climate Change Portal, Pacific Disaster Net and government documents Project preparation documents Project reports and evaluations from completed interventions	Natural and man-made hazards do not adversely affect project implementation and delivery in the target countries.
1.2 Number of countries a. with an impacts database and b. applying the impacts database to inform decision-making.	1.2 0	1.2 a. Two countries by 2020 and b. one country by 2022.	1.2 a. Review of database portals instructions, functionality and visibility, and b. monitoring of database usage and data extraction	Development partners and governments support an objective review of long-term impacts of past interventions.
1.3 Status of reporting on analysis of impact of the CC and DRM actions in the target countries.	1.3 0	1.3 Report on the analysis of impact of CC and DRM interventions in two countries by 2022.	1.3 Project reports on the impacts database	

Indicators	Baselines (2018)	Targets (2023)	Sources Means of verification	Assumptions
<b>Output 3: Strategic and local interventions for climate change adaptation and mainstreaming scaled up in up to five sectors.</b>				
<b>Short title: Scale up resilient development measures in specific sectors</b>				
<p><b>3.1</b> List of measures with potential for up-scaling based on national and local consultations in target geographical areas.</p> <p><b>3.2</b> Number of countries with adaptation scaling-up measures implemented.</p> <p><b>3.3</b> Number of sectors with adaptation scaling-up measures implemented.</p> <p><b>3.4</b> Number of countries with on-the-ground climate and disaster risk interventions empowering women and vulnerable groups.</p> <p><b>3.4a</b> Number of new on-the-ground climate and disaster activities specifically empowering women and vulnerable groups.</p> <p><b>3.5</b> Number of countries with measures that combine hard structures and ecosystem-based approaches.</p> <p><b>3.6</b> Number of sectors with measures that combine hard structures and ecosystem-based approaches.</p> <p><b>3.7</b> Number of climate/disaster risk private sector interventions in target geographical areas.</p>	<p><b>3.1—3.7</b> Baselines itemised for each country in concept notes and project design documents.</p>	<p><b>3.1</b> Measures identified in project design documents for each country.</p> <p><b>3.2</b> Eight countries</p> <p><b>3.3</b> Three sectors</p> <p><b>3.4</b> Three countries</p> <p><b>3.4a</b> 10</p> <p><b>3.5</b> Two countries</p> <p><b>3.6</b> Two different sectors</p> <p><b>3.7</b> Two interventions</p>	<p><b>3.1</b> Pacific Climate Change Portal Pacific Disaster Net Progress and evaluation reports from other projects Results of consultations</p> <p><b>3.2—3.7</b> Progress, annual reports, evaluations from this project; Regional meetings and conferences</p>	<p>Natural and man-made hazards do not adversely affect project implementation and delivery.</p> <p>Governments and communities have the capacity and time to proceed with project implementation.</p> <p>Sufficient local resources and skills available to implement and maintain the interventions, especially in view of the number of other interventions supported by development partners.</p> <p>Private sector in countries with small population sizes is sufficiently organised to be interested.</p>



## ANNEX 2 Staff positions for PMU, outputs 1 and 3

### (a) Core team

Position	Location	Position holder	Duration	% time
<b>PMU</b>				
PMU Project manager	Suva	Gillian Cambers	01.01.19–31.12.23	100
PMU Project finance manager	Suva	Sheik Irfaan	01.07.19–31.12.23	100
PMU Finance and administrative assistant	Suva	Rigietta Rosa	08.04.19–31.08.22	100
PMU Project assistant	Suva	Sonika Goundar	01.11.20–13.09.22	100
PMU Finance and administrative assistant	Suva	Amrita Kumar	18.07.22–16.05.23	100
PMU Finance and administrative assistant	Suva	Shivani Narayan	01.11.22–31.12.23	100
Finance and administrative assistant	Suva	Shifazia Begum	01.12.23–13.09.23	100
PMU Communications officer	Suva	Zhiyad Khan	01.01.19–04.08.22	100
SPC – PMU – EU – Programme coordinator	Suva	Katrine Lorentzen Claire Thoms	01.01.19–30.09.20 01.09.20–31.12.23	5
SPC – PMU – EU – Finance advisor	Suva	Richard Alu	01.01.20–31.12.23	5
PMU Short term technical officer	Suva	Swastika Raju Ilaisa Naca Mosese Nabulivou	03.02.21–31.03.21 15.07.22–25.08.23 27.08.22–30.11.23	100 100 100
Digital communications assistant	Suva	Jovesa Naisua	19.01.2 –06.10.23	100
<b>Output 1</b>				
SPREP Team leader and impact analyst adviser	Apia	Monifa Fiu	16.03.20–31.12.23	100
Finance assistant	Apia	Dannicah Chan	04.05.20–30.04.23	100
Information research assistant	Apia	Gloria Roma	13.07.20–31.12.23	100
<b>Output 3</b>				
Project implementation officer	Suva	Titilia Rabuatoka	14.01.19–13.09.22	100
Project implementation officer	Suva	Sanivalati Tubuna Swastika Raju	17.04.19–19.03.21 01.04.21–13.06.23	100
Project implementation officer	Suva	Turang Teuea	13.02.20–31.12.23	100
Project engineer	Suva	Tofinga Fakasao	01.07.20–31.12.23	100

## (b) Consultants for output 1

Position	Location	Position holder	Duration
Consultant	Cook Islands	Teariki Rongo	18.06.21–30.06.22
Consultant	FSM	Micronesia Conservation Trust	28.04.21–30.06.22
Consultant	Palau	Palau Conservation Society	31.03.21–11.08.22
Consultant	Tonga	Talanoa Fuka	05.02.21–30.06.22
Consultant	Fiji	WWF Pacific – national facilitator	26.10.22–21.02.23
Consultant	USA	Engineered IT – database system developer	24.06.22–31.01.23
Consultant	Fiji	Wolf Forstreuter – GIS Specialist	25.08.21–30.06.22

## (c) National coordinators for output 3

Position	Location	Position holder	Duration
National coordinator	Cook Islands	Fiona Pearson	01.01.21 – 31.03.23
National coordinator	FSM	Sean Kadanned	01.11.20 - 30.06.23
National coordinator	Fiji	Rahul Tikaram	09.03.20 – 09.08.22
National coordinator	Kiribati	Teuea Tebau	26.04.21 – 25.04.22
		Turutana Tekaaata	08.05.22 – 30.06.23
Project technical support officer		Temoua Tabokai	09.12.22 – 30.06.23
National coordinator	Marshall Islands	Tamar Capelle	26.04.21 – 30.06.23
National coordinator	Nauru	Erana Aliklik	06.01.20 – 30.06.23
National coordinator	Niue	Taveli Pavihi	01.04.21 – 30.06.23
National coordinator	Palau	Joe Aitaro	21.10.20 – 30.06.23
Finance assistant		Amand Alexander	21.10.20 – 31.12.22
National coordinator	Tonga	Manu Manuofetoa	01.05.20 – 30.06.23
Finance assistant		Filimoeunga Aholelei	27.04.20 – 31.12.20
Finance assistant		Sione 'Uha'one	10.02.21 – 30.06.23
National coordinator	Tuvalu	Sitia Maheu	22.03.21 – 30.06.23

## ANNEX 3 Country activities

### OUTPUT 1 Impact analysis to strengthen national strategic planning

### OUTPUT 3 Scale up resilient development measures in specific sectors

#### 3.1 Cook Islands

The Cook Islands comprise 15 islands, with the high volcanic island of Rarotonga the centre of government and commerce. The Cook Islands are spread over 2 million km<sup>2</sup> and situated northeast of New Zealand and between American Samoa and French Polynesia. Geographically, and to a certain extent culturally, the nation is divided into two groups: the Southern Group, comprising the islands of Aitutaki, Atiu, Mangaia, Mauke, Mitiaro, Rarotonga, Manuae (an uninhabited atoll) and Takutea (an uninhabited sand cay) and the Northern Group, comprising the islands of Manihiki, Palmerston, Penrhryn, Pukapuka, Suvarrow and Nassau, which are relatively isolated and less developed. The population of Cook Islands is 17,434 (2016). Rarotonga is the main population centre. Key development challenges for Cook Islands include its narrow economic base, limited natural resources, fragile environment, shortage of skilled labour and relatively remote location.

The project used a consultative and people-centred approach to conduct an impact analysis on past projects in water security and marine resources management in Mangaia and Mauke (output 1), and to upgrade the Aitutaki Marine Research Centre (AMRC) and integrate traditional knowledge into climate change education programmes for youth in the Southern Group of islands (output 3).



*Installing the saltwater intake*

#### Cook Islands January 2019–June 2023

Output 1: Impact analysis to strengthen national strategic planning	
Jun 2021	National consultant commenced
Sep 2022	Testing of the full impact analysis methodology on water security and marine resources management in Mangaia completed, and snapshot report published
Nov 2023	A team from Cook Islands participated in the regional applied training in impact analysis and the impacts database held in Fiji
May 2023	Light version of impact analysis methodology applied to Mauke water project, and training conducted with stakeholders in Rarotonga
Jun 2023	A team from Cook Islands participated in the subregional applied training for the light version of the impact analysis methodology

### Output 3: Scale up resilient development measures in specific sectors

#### Planning and coordination

Mar 2019	Presentation of GCCA+ SUPA project at an inception meeting in Fiji attended by a representative from Cook Islands
May 2019	Project sector selected – marine resources
Aug 2019	1st consultation with government agencies and NGOs
Oct 2019	Concept note approved
Nov 2019	2nd consultation to prepare the PDD
Aug 2020	PDD signed with provision for use of national procurement policy and procedures (following a capacity assessment)
Jan 2021	National coordinator commenced
Mar 2021	PDD amendment 1 signed
Jun 2021	PDD amendment 2 signed

#### Key result area (KRA) 1: Upgrade of AMRC to facilitate research, monitoring and education on Aitutaki

May 2021	Capacity needs assessment of AMRC completed
Jul–Sep 2021	Conceptual plan for the refurbishment of AMRC prepared
Nov 2021– Mar 2022	Induction of a giant clam spawning event in Aitutaki, and 68,000 juvenile clams released along Aitutaki lagoon ridge
Apr 2022	Standard operating procedures (SOP) for the spawning of giant clams completed
Jun 2022	Final design for AMRC upgrade completed
Dec 2022	Contract signed for refurbishment of AMRC, and clerk of works hired to report on progress of work at AMRC
Jun 2023	Five-year operational plan for AMRC incorporated into the Ministry of Marine Resources (MMR) Business Plan
Jun 2023	Refurbishment of AMRC completed, including upgrade of the seawater intake system and upgrade of the land-based clam nursery. Practical completion certificate issued
Jun 2023	Marine monitoring equipment, laboratory equipment and IT electronic equipment delivered to MMR

#### KRA 2: Integrate climate awareness through traditional knowledge for the marine sector into environmental education programmes and management

Mar 2022	Compilation and analysis of marine traditional knowledge and climate resilience information in Aitutaki, Aitu, Mangaia and Mauke completed, and report prepared
Feb 2023	Training provided to teachers to deliver an extracurricular programme on climate resilience and marine traditional knowledge in Aitutaki, Mauke, Atiu, Mitiaro and Mangaia completed

## Highlights output 1

Cook Islands was one of the four countries to trial the extended version of the impact analysis methodology. The two past projects selected for analysis covered water security in Mangaia, supported by the Pacific Climate Change Science and Adaptation Project, and marine resource management in Mangaia, supported by the United Nations Development Programme – Global Environment Fund.

The following are the output 1 highlights in Cook Islands.

- The main implementing partner for the impact analysis was an NGO, Korero o te Orau.
- The trial of the extended version of the impact analysis methodology was conducted over a 15-month period starting in July 2021 and included research into past projects, data collection and field trials of the methodology.
- The final snapshot impact analysis report was published in September 2022 and showed each project received a scoring of “high (positive) impact”, with 2.6 out of a total of 4 for water security in Mangaia and 3.2 out of a total of 4 for marine resource management in Mangaia.
- Cook Islands featured in one of the practice learning sessions conducted between June and August 2022 and shared the context and results of their activities for outputs 1 and 3.
- Cook Islands participated in the regional applied training in impact analysis methodology and the impacts database in Fiji in November 2022.
- A light version of the impact analysis methodology was applied to the Mauke water project, with training on impact analysis conducted with stakeholders in Rarotonga.
- Cook Islands participated in the subregional applied training for the light version of the impact analysis methodology in Samoa in June 2023.

## Highlights output 3

The Cook Islands government selected the marine resources sector as their focus for output 3. The overall objective of the project was to enhance climate change adaptation and resilience in the marine sector, and the specific objective was to strengthen adaptive management of marine systems through strengthened, climate-focused monitoring, education and awareness. The two key result areas were: (1) upgrade of AMRC to facilitate research, monitoring and education purposes on Aitutaki and (2) integrate climate awareness through traditional knowledge for the marine sector into environmental education programmes and management.

The following are the output 3 highlights in Cook Islands.

- The GCCA+ SUPA project was presented to the countries at an inception meeting held in Fiji in March 2019. Following this and after two in-country consultations, Cook Islands selected marine resources management in Aitutaki, Mauke, Atiu, Mitiaro and Mangaia in the Southern Group as their focus sector.
- The main implementing partners for the project were Climate Change Cook Islands (Office of the Prime Minister) and MMR.
- The PDD was signed with provision for use of national procurement policy and procedures, following a capacity assessment and taking into account the Cook Islands’ status as a National Implementing Entity to the Adaptation Fund and as an Accredited Entity to the Green Climate Fund.

- The infrastructure of AMRC was upgraded to support strengthened research, monitoring and education within a climate resilience context, targeting those marine systems that are most threatened by the ongoing impacts of climate change.
- The land-based clam nursery and seawater supply system at AMRC were rebuilt, and the centre was refurbished with new survey equipment, laboratory equipment and IT electronic equipment.
- Marine monitoring activities were conducted to revive the giant clam population in Aitutaki and in March 2022, 68,000 juvenile clams were released along the Aitutaki lagoon ridge.
- SOP for the spawning of giant clams have been finalised.
- A five-year operational plan for AMRC was prepared and incorporated into the MMR Business Plan.
- Marine traditional knowledge, including fishing practices, has been compiled with the assistance of elders and fishers in the outer islands of Aitutaki, Atiu, Mangaia, Mauke and Mitiaro. This information has been shared with youth and communities, and a report entitled “Improving the traditional fishing knowledge of the southern Cook Islands for the purpose of educating young people” has been completed.
- A teacher’s guide on “Fishing zones and associated fishing practices in the Southern Group” for primary and secondary school students has been prepared. Teachers in Aitutaki, Mangaia and Mauke have been trained in the delivery of this information through extracurricular activities.
- Outreach activities relating to the GCCA+ SUPA project and climate resilience in the marine sector have been conducted, including school careers days and science expos.
- Two videos featuring youth in marine resources management have been prepared.

## Challenges

- Due to travel restrictions brought about by COVID-19, consultations between the implementing partners and Cook Islands partners were convened entirely through virtual meetings over a 2.25-year-long period. This arrangement was hampered by poor internet connections and different time zones.
- The travel restrictions also limited activities in the outer islands.
- There was a long delay between the signing of the PDD in 2020 and the start of work to refurbish AMRC (nevertheless, the upgrade was completed by the end of the June 2023).

## Lessons learnt

- The people-centred approach utilised throughout the project, and especially in the integration of traditional knowledge into climate change education, focused particularly on youth and elders, providing an opportunity for the exchange of knowledge between these groups and empowering future generations.
- Provide clear explanations and training on the different SPC funding modalities (grant agreements, service contracts and direct procurement) and their reporting requirements at the start and throughout the project implementation period to national officers and national agencies responsible for government financial management.
- Daily independent engineering oversight of infrastructure projects during the construction phase is essential.

## 3.2 FSM

FSM is a group of 607 islands in the northwestern Pacific Ocean with a total land area of 701 km<sup>2</sup> spanning an exclusive economic zone of 2,980,000 km<sup>2</sup>. These islands vary in size from small islets that are submerged 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. 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).



*Community members assisting with the installation of a rainwater harvesting system at the Catholic Church, Pulusuk Island, Chuuk State, FSM*

The project used a consultative and people-centred approach to conduct an impact analysis of past water security measures in Nukuoro Atoll, Pohnpei State (output 1) and address water security in Polowat, Pulusuk, Pullap and Tamatam Islands in the northwest of Chuuk State (output 3).

### FSM 2019–June 2023

Output 1: Impact analysis to strengthen national strategic planning	
Jun 2021	National consultant commenced
May 2022	Testing of the full methodology on water security in Nukuoro Atoll, Pohnpei State completed, and snapshot report published
Nov 2022	A team from FSM participated in the applied training in impact analysis and the impacts database held in Fiji
Feb 2023	Impact snapshot shared with Department of Climate Change and Emergency Management (DECEM)
May 2023	Application of the light version of the impact analysis at Satowan and Lekinoch, Chuuk State
Jun 2023	A team from FSM participated in the subregional applied training for the light version of the impact analysis methodology
Output 3: Scale up resilient development measures in specific sectors	
Planning and coordination	
Mar 2019	Presentation of GCCA+ SUPA project at an inception meeting in Fiji attended by a representative from FSM
May 2019	Consultation between SPC and DECEM in Pohnpei, FSM

<b>Planning and coordination</b>	
Jun 2019	Project sector selected – water security
Jan 2020	Environmental Protection Agency (EPA) Chuuk State selected as implementing agency for project sites in Polowat, Pulusuk and Pullap Islands in Chuuk State
Mar 2020	Concept note approved
May 2020	PDD signed
Nov 2020	National coordinator started
Jan 2021	Inception meeting with stakeholders in Chuuk convened
	PDD amendment signed
Apr 2022	Project field and administrative assistants recruited
<b>KRA 1: Install and enhance rainwater harvesting in community shelters/buildings in Polowat, Pulusuk and Pullap; and KRA 2: Training and capacity building in rainfall data management in Polowat and water management for households and schools in Polowat, Pulusuk and Pullap</b>	
Jun 2021	Project consultations and assessment in each island. MoUs signed with the communities in each island
Sep 2021	Engineering assessment, selection of installation sites and water quality testing in each island
Jun 2022	Twenty-six rainwater tanks delivered to the three islands, and temporary installations of six systems completed to provide water storage during the 2022 typhoon season
	Addition of Tamatam Island to the project scope as a partnership between Chuuk State government and the GCCA+ SUPA project
Sep 2022	EPA Chuuk State endorsed the design of rainwater harvesting systems prepared by the project for public potable water installations in remote communities
Nov 2022	Hands-on training of local contractors in rainwater harvesting system installation and maintenance in Weno, Chuuk
Feb 2023	Full installation of 10 x 10,200-L rainwater harvesting systems in Pullap Island, delivery of maintenance training to communities, and WASH training provided to the school
Jun 2023	Full installation of eight x 10,200-L rainwater harvesting systems in Polowat Island, eight x 10,200-L rainwater harvesting systems in Pulusuk Island and three x 10,200-L rainwater harvesting systems in Tamatam Island. Delivery of maintenance training to local communities, and delivery of WASH training provided to the school in each island. One rain gauge installed at Polowat Municipal Office



## Highlights output 1

FSM was one of the four countries to trial the extended version of the impact analysis methodology. The past project selected for analysis focused on water security in Nukuoro Atoll, Pohnpei State and was supported by the Adaptation Fund.

The following are the output 1 highlights in FSM.

- The main implementing partner for the impact analysis was the Micronesia Conservation Trust.
- The trial of the extended version of the impact analysis methodology was conducted over an 11-month period starting in June 2021 and included research into past projects, data collection and field trials of the methodology.
- The final snapshot impact analysis report was published in May 2022 and showed the project received a scoring of “medium (positive) impact”, with 1.79 out of a total of 4.
- FSM featured in one of the practice learning sessions conducted between June and August 2022 and shared the context and results of their activities for outputs 1 and 3.
- The results of the impact analysis for Nukuoro Atoll were shared with DECEM in February 2022.
- The light version of the impact analysis was applied to Satowan and Lekinoch in Chuuk State.
- A team from FSM participated as resource persons in the subregional applied training for the light version of the impact analysis methodology.

## Highlights output 3

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

The following are the output 3 highlights in FSM.

- The GCCA+ SUPA project was presented to the countries at an inception meeting in Fiji in March 2019 and to DECEM in FSM in May 2019. DECEM consulted with government partners and in January 2020, FSM selected water as the focus sector and the atoll islands of Polowat, Pulusuk and Pullap in the northwest islands of Chuuk State as project sites.
- The main implementing partner for the project activities was EPA Chuuk State.
- The three islands are only accessible by boat. Boat schedules to these islands are ad hoc, and charters are the only practical way to deliver project activities within a fixed timeframe. A total of five charters were arranged to conduct consultations and assessments, training and monitoring, and the installation of the rainwater harvesting systems.
- A people-centred approach was adopted throughout the project, and all the principles of the PLANET checklist were applied.

- Consultations were held with the communities, and MoUs were signed to confirm the project site, the government's role, the community's role, ownership of the land and ownership of the water systems. Consultations with the communities continued during each visit as small design and placement changes were requested.
- Two rainwater harvesting systems were temporarily installed in each of the three islands in June 2022 for use by the communities during the approaching typhoon season whilst awaiting the delivery of materials for the full installation.
- Full installation at community buildings of 10 x 10,200-L rainwater harvesting systems in Pullap Island, eight x 10,200-L systems in Polowat Island and eight x 10,200-L systems in Pulusuk Island was completed by June 2023.
- At the request of EPA Chuuk State, the project installed three rainwater harvesting systems in Tamatam Island, adjacent to Pullap, as a partnership arrangement.
- Local plumbers and builders were contracted to lead the installations on the islands, and the communities provided the labourers. This inclusive approach was adopted to empower the communities, instil a sense of ownership for the measures and provide the skills required for maintenance of the systems.
- A hands-on training on the installation of rainwater harvesting systems was conducted with contractors in Weno, Chuuk. This training upskilled the contractors in rainwater installations and introduced the use of appurtenances such as first flush diverters, leaf eaters and filters. These appurtenances have been fitted in all installations. As part of the training, two rainwater harvesting systems were installed at the Logan Methodist Church in Weno.
- WASH activities were delivered to the schools on all islands and included awareness raising on water management and hygiene, training of teachers and students on handwashing essentials and the provision of basic handwashing kits such as buckets and hand wash basins.
- A rain gauge was installed in Polowat to collect rainfall data for the northwest islands and transmit the data to the Weather Service Office Chuuk to better understand the rainfall patterns in the islands and inform planning for extreme events. A local staff member at the Polowat Municipal Office was trained in data collection and management and provided with a laptop computer.
- EPA Chuuk State endorsed the design of rainwater systems prepared by the project for future public potable water installations in remote communities and is making plans to replicate similar water security activities in other outer islands in the state.

## Challenges

- Due to travel restrictions brought about by COVID-19, consultations between the project teams at SPC Fiji and SPREP in Samoa with government partners in Chuuk for project planning and design were convened entirely through virtual meetings. This arrangement was hampered by poor internet connections and time zone differences.
- Although the project sector and site for output 3 were selected in January 2020, recruitment of the national coordinator was only completed in November 2020.
- Significant challenges had to be overcome in the procurement of materials, in particular plumbing materials. Due to the global supply chain disruptions during and after the COVID-19 pandemic, several items were difficult to source, and shipment schedules were significantly disrupted by continuous delays. Increases in the price and shipment of materials were also experienced over the course of the project. As a result, materials were delivered to Chuuk in batches between March 2022 and February 2023.
- Several factors caused disruptions to the project's charter schedules and delays in implementation. These included national emergencies such as a search for missing fishermen at sea, delivery of medical supplies and personnel, closure of outer islands in observation of funeral traditional protocols, and the community transmission of COVID-19. As one example, the project's charter was delayed for three months, resulting in the rescheduling of activities.

## Lessons learnt

- Applying a people-centred approach in the design, planning and implementation of the project is critical to achieve acceptable and culturally appropriate measures.
- An inclusive community consultation approach that considers all members of the communities, including women and youth, is important for informed planning and implementation.
- A flexible approach is encouraged when working with communities as decisions and needs are likely to change between design and implementation phases.
- Careful attention to design and project material specifications by all parties is important, especially if goods are being procured from overseas vendors.
- Procurement of plumbing and other materials from vendors that use imperial measuring systems is recommended for FSM for consistency and implementation.
- Project implementation in remote settings is costly and therefore island visits should be maximised or co-financed with similar projects where possible.
- Training and capacity building is essential in infrastructure projects such as GCCA+ SUPA to support and sustain the on-the-ground measures.
- Engagement of community members in installation of the water measures is important to empower communities, instil their sense of ownership in the project and provide for long-term maintenance.
- Projects relating to water infrastructure in remote communities need to complete full installation, as was the case in the GCCA+ SUPA project (there have been cases where previous project interventions have focused only on the supply and delivery of materials, and the installation and connections were not completed).

### 3.3 Fiji

The Republic of Fiji is located in the South Pacific Ocean, 1770 km north of New Zealand. It is an archipelagic small island developing state with over 332 volcanic islands and 522 smaller islets. It has a total land area of 18,272 km<sup>2</sup> and an exclusive economic zone of 1,282,978 km<sup>2</sup>. Only 110 islands are permanently inhabited. The capital, Suva, is located on the island of Viti Levu in the province of Rewa. The majority of the population lives on the two main islands of Viti Levu and Vanua Levu. The population of Fiji is 884,887 (2017 Census), 55.9% of whom live in urban areas. The majority of Fiji's population, assets and infrastructure are located in coastal areas.



*Planting vetiver grass to stabilise riverbank erosion in the Soasoa watershed, Fiji*

The project used a consultative and people-centred approach to conduct an impact analysis of past agriculture, coastal protection, marine resource management and water security measures in several communities in Fiji (output 1) and to scale up drainage and maintenance measures in the Soasoa watershed, Vanua Levu (output 3).

### Fiji January 2019–June 2023

Output 1: Impact analysis to strengthen national strategic planning	
Oct 2022	National coordinator commenced
Nov 2022	A team from Fiji participated in the applied training in impact assessment and the impacts database held in Fiji
Feb 2023	Fiji's application of the light version of the impacts analysis methodology highlighted during the practice learning series
Mar 2023	Testing of light version of the methodology at several sites, covering agriculture, coastal protection, marine resources management and water security sectors, and snapshot report prepared
Apr 2023	Impact analysis light version of the methodology applied to additional sites in Fiji in collaboration with the Department of Climate Change

<b>Output 3: Scale up resilient development measures in specific sectors</b>	
<b>Planning and KRA 4: Coordination</b>	
Aug 2019	Project sector selected – coastal protection
Nov 2019	1st project consultation in Labasa to design the PDD
Mar 2020	National coordinator commenced
Jun 2020	PDD signed
Mar 2021	PDD amendment 1 signed
Jun 2021	PDD amendment 2 signed
<b>KRA 1: Development of a watershed management plan (2020–2050) for the Soasoa drainage system</b>	
Oct 2020	1st community consultation for Soasoa watershed management plan
Mar 2021	2nd community consultation (and mapping workshop) for the Soasoa watershed management plan
May 2021	Soasoa watershed management plan endorsed by the Fiji government
Nov 2021	Validation workshops for the Soasoa watershed management plan held with government representatives and resource users
Jun 2022	Soasoa watershed management plan published
July 2022	Start-up activities to implement the Soasoa watershed management plan with the planting of vetiver grass in the Vunivau community
<b>KRA 2: Preparation of a survey and detailed engineering design for the prioritised scaling-up measures for the Soasoa drainage system</b>	
Jun 2020	Topographic survey of Soasoa watershed area completed
Jul 2020	Operational environmental management plan for Soasoa drainage measures approved
Jan 2021	Full engineering design for Soasoa drainage measures completed
<b>KRA 3: Implementation of the prioritised scaling-up measures for the Soasoa drainage systems</b>	
Nov 2021	Contract awarded for the construction of Soasoa flood control measures
Mar 2022	Start of construction of the Soasoa flood control measures
Dec 2022	Contract for the construction of the Soasoa flood control measures terminated without full delivery
Jul 2023	Heavy machinery (excavator and prime mover with low bed trailer) for maintenance of drainage systems in the Northern Division handed over to Ministry of Agriculture and Waterways (MoAW)
<b>KRA 5: Training in costing methodology for Fiji's National Adaptation Plan</b>	
Jun 2022	Pilot training workshop on costing methodology for the NAP
Jul 2022	Full training workshop on costing methodology for the NAP

## Highlights output 1

Fiji applied the light version of the impact analysis methodology to several past projects across a number of communities. This was conducted over a nine-month period, October 2022 to June 2023.

The following are the output 1 highlights in Fiji.

- The main implementing partner for the impact analysis was the World Wildlife Fund.
- The final snapshot impact analysis report was published in April 2023 and showed that most of the projects received a scoring of “high (positive) impact”. The snapshot report also showed that there was little difference between climate change adaptation projects and projects with other objectives.
- Fiji also featured in one of the practice learning sessions in February 2023.
- A team from Fiji participated in the regional applied training in impact analysis methodology and the impacts database in Fiji in November 2022.
- In April 2023 the light version of the methodology was extended to further sites in Fiji in collaboration with the Department of Climate Change.
- A team from Fiji participated in the subregional applied training for the light version of the impact analysis methodology in Samoa in June 2023.

## Highlights output 3

The Government of Fiji selected coastal protection as their focus sector for output 3. The overall objective was for the resilience of vulnerable coastal communities to be enhanced through comprehensive planning and scaled up infrastructure. The specific objective was for the implementation of prioritised flood control measures in the Soasoa catchment. The five key result areas were: (1) development of a watershed management plan (2020–2050) for the Soasoa drainage system; (2) preparation of a survey and detailed engineering design for the prioritised scaling-up measures for the Soasoa drainage system; (3) implementation of the prioritised scaling-up measures for the Soasoa drainage system; (4) recruitment and employment of a national coordinator; and (5) training in a cost methodology for the NAP.

The following are the output 3 highlights in Fiji.

- The GCCA+ SUPA project was presented to Fiji government partners at the inception meeting in March 2019. Shortly thereafter, the Fiji government identified coastal protection as their selected sector and provided a framework concept for the scaling up of the Soasoa drainage system in Vanua Levu.
- The main implementing agency was the Ministry of Waterways and Environment (MoWE) in collaboration with the Department of Climate Change and International Development (CCID), Ministry of Economy.
- Following consultations with communities and government partners, field assessment and historical research, the Soasoa/Vuniwau/Basoga integrated watershed management plan and action plan (2021–2050) was prepared. The action plan included specific and costed actions for the first five-year period. The plan was endorsed by the communities at a validation workshop and then endorsed by MoWE.
- One measure articulated within the Soasoa watershed management plan was undertaken to initiate implementation of the action plan. This was the planting of vetiver grass by the Vunivau community along the riverbank parallel to the Nasuva Creek.
- A contract was issued to supply materials and construct flood control measures for the Soasoa drainage scheme, Labasa, and work started in March 2022. Unfortunately, the contract was not completed and was terminated in December 2022. The fabricated materials, one trash rack and two flood gates, were handed over to MoWE.

- The full flood control measures were substituted with the provision of heavy equipment (excavator and prime mover/low bed trailer) for the MoWE. This provided the MoWE with the equipment necessary to undertake routine maintenance of the Soasoa drainage system and respond rapidly and effectively to emergency situations in the watershed. Training was provided in the operation of the heavy equipment.
- Representatives from several government agencies were trained in the application of a costing methodology for climate change adaptation measures included in the Fiji NAP. This enabled government agency representatives to provide data-rich and comparable cost estimates for the 160 climate adaptation measures included in the NAP.

## Challenges

- Although the project sector and site were identified in 2019, a longer project timeframe was needed to complete implementation of the Soasoa drainage scheme.
- Daily oversight of the contractor's work was insufficient.
- Communication with the Soasoa stakeholders was inadequate during the implementation of the flood control measures.

## Lessons learnt

- Consultations with the different groups and the use of a people-centred approach helped to make the preparation and start of implementation of the Soasoa watershed management plan relevant and inclusive.
- Provide regular updates to all stakeholders benefitting from or impacted by an infrastructure project.
- Ensure the project timeframe is sufficient to effectively complete the two main phases of an infrastructure project: (a) conceptual design and feasibility, cost-benefit analysis, full final design, national regulatory approvals and permits; and (b) construction, oversight and completion certificates.
- Provide skilled engineering personnel for daily oversight during the construction phase.

### 3.4 Kiribati

The Republic of Kiribati is located in the central Pacific Ocean and is the only country that is situated within all four hemispheres. The islands are divided into three groups: Gilbert, Phoenix and Line Islands. There are 32 low-lying atolls that rise to no more than 2 m above sea level and Banaba Island, a raised coral island lying to the west of the Gilbert Islands, with the highest point of 81 m. Banaba Island has a population of 333, with 85 households in total.

The project used a consultative and people-centred approach to (i) introduce the impact analysis methodology to partners in Kiribati (output 1), and (ii) enhance water security for the people of Banaba Island by constructing a fit-for-purpose building to house the existing reverse osmosis (RO) plants and adding additional water storage (output 3).



*Construction in progress of new water facility infrastructure in Banaba Island, Kiribati*

#### Kiribati January 2019–June 2023

Output 1: Impact analysis to strengthen national strategic planning	
Jun 2023	A team from Kiribati participated in the subregional workshop on applied training for the light version of the impact analysis methodology
Output 3: Scale up resilient development measures in specific sectors	
Planning and KRA 3: project coordination	
Jul 2019	1st consultation with Kiribati National Expert Group
Aug 2019	Project sector selected – water security Concept note prepared with the MISE as implementing agency
Nov 2019	2nd consultation to define activities under the PDD
Feb 2020	3rd consultation to confirm project activities with partners
May 2020	PDD (Version 1) signed with Beru Island, identified as the project site
Nov 2020	PDD (Version 2) signed with revised schedule to accommodate COVID-19 travel restrictions
Apr 2021	National coordinator commenced
Nov 2021	PDD (Version 3) signed with a changed focus and project site (Banaba Island)
Jun 2022	Project finance officer commenced (position shared with other projects)
Dec 2022	Project technical officer commenced



<b>KRA 1: Construction of a new building to house the RO units in Banaba Island</b>	
Feb 2022	Consultation with the community and engineering survey of the existing RO storage building in Banaba Island
Jun 2022	MoU between Banaba Island Mayor and Island Council, MISE and GCCA+ SUPA project signed
Oct 2022	Demolition of the existing storage building completed
Jun 2023	Construction of the new fit-for-purpose structure to house the RO units, solar panels, batteries, cabinets and other accessories completed
<b>KRA 2: Enhancing existing water security measures in Banaba Island, Kiribati</b>	
Jun 2023	Additional rainwater storage systems and rain gauge installed in Banaba Island
<b>KRA 4: Purchase of water security measures for Beru Island</b>	
Jul 2022	Rapid assessment and consultation in Beru Island
Apr 2023	Eighty solar pump systems purchased by the project for Beru Island to pipe water from existing storage systems to community buildings

## Highlights output 1

Representatives from Kiribati participated in the subregional workshop and applied training for the light version of the impact assessment methodology held in Samoa in June 2023. The purpose of this workshop was to share the “light” version of the methodology to analyse past actions and learn from their successes and failures so as to improve strategic planning in the future.

## Highlights output 3

The Government of Kiribati selected water security as the focus sector for output 3. The overall objective was to build national capacity in the operation and maintenance of desalination systems, with a specific objective to install a desalination unit in Beru Island. The project scope and site were revised midway through the implementation period due to COVID-19 travel restrictions. The revised overall objective was to strengthen water security measures for remote atolls in Kiribati, and the specific objective of the project was to scale up existing emergency water security measures in Banaba Island. The project had four KRAs: (1) construction of a new building to house the RO units in Banaba Island; (2) enhancing existing water security measures in Banaba Island; (3) employment of a national coordinator to be based in MISE; and (4) purchase of water security measures for Beru Island.

The following are the output 3 highlights in Kiribati.

- The GCCA+ SUPA project was presented to the Kiribati National Expert Group at a consultation in June 2019. Water security in the Southern Gilbert Islands was selected as the focus sector. Two further consultations were conducted to design the activities in November 2019 and February 2020.
- The main implementing partner for the project activities was MISE, in collaboration with the Ministry of Finance and Economic Management and the Office of Te Beretitenti (The President).
- Government stakeholders recognised the need to adopt an adaptive and flexible project management approach following the COVID-19 travel restrictions, which were in place from 2020 to mid-2022.

- Between June and November 2021 there was an intensive period of consultation, and in November 2021 version 3 of the PDD was signed with a change of scope and project site to scale up existing emergency water security measures in Banaba Island.
- Despite having to change the scope of the project and the project site midway through the implementation period, an existing structure was demolished and a new, fit-for-purpose building and facility for the desalination units (originally housed in a temporary location in Banaba Island) was constructed. New pumps and water storage tanks were purchased and installed. Additional rainwater harvesting systems were also installed using the roof of the new building as a catchment and providing additional supply and capacity.
- A people-centred approach was used throughout the activities, with special attention paid to the participation, non-discrimination and accountability elements of the PLANET checklist. In relation to accountability, a special effort was made to explain to the Beru mayor, Island Council and community the reason for changing the project site to Banaba Island and requesting their suggestions for substitute activities in Beru Island. Similarly, all changes to the PDD and project scope were done in collaboration with government stakeholders.
- Community members were involved in demolition of the old building and construction of the new facility.
- An MoU was signed with the Banaba mayor, Island Council and MISE to confirm responsibilities and management of the new measures.
- A rain gauge was installed on Banaba Island, one of the most remote islands in Kiribati with no regular shipping schedule. This will allow for data to be sent to the Kiribati Meteorological Services in real time and provide for improved drought management.
- Eighty solar-powered pumps to pipe the water from existing storage sources directly to community buildings in Beru Island were purchased and delivered to MISE. This will complement the water tanks being provided by the government.

## Challenges

- The COVID-19 travel restrictions and the uncertainty around when they would finish was a major challenge for the project in Kiribati such that three versions of the PDD were prepared to accommodate the changing situation.
- As a result, a two-year period remained for the design and implementation of the new measures.
- Banaba Island is one of the most remote islands in Kiribati, with no regular shipping schedule, and charters had to be arranged for each trip to Banaba.

## Lessons Learnt

- Adopting a flexible and adaptive project management approach allowed for Kiribati, and MISE in particular, to complete project activities in a short two-year time period, despite having to re-design the project scope and select a new project site.
- Application of the people-centred approach allowed for all stakeholders – government agencies, island communities and island governance officers – to understand why and how project activities were changed and to participate in designing the changes.
- Sharing positions such as in-country project finance officers with other projects improves project delivery and saves costs.
- Working with very remote outer island communities requires additional funding to accommodate charter costs.
- Engagement of community members in the installation of water infrastructure and systems is important to empower communities, instil their sense of ownership in the project and provide for long-term maintenance.

### 3.5 Marshall Islands

The Marshall Islands is a small country of 29 atolls and five coral islands. The country comprises a land area of about 180 m<sup>2</sup>, spread over an expanse of ocean in the North Pacific of more than 4600 km<sup>2</sup>, and an exclusive economic zone of around 2 million km<sup>2</sup>. The Marshall Islands consist of a total of around 1225 low-lying islands, with very few places higher than 3 m above sea level. Almost 70% of the population of around 55,243 (2016 estimate) are concentrated in urban centres on Kwajalein and Majuro atolls.

The project used a consultative and people-centred approach under output 3 to scale up an existing Community Lifestyle Programme in Majuro Atoll by expanding the scope to other atolls and adopting a more holistic approach to climate resilience by adding sustainable agriculture activities, cooking classes, agriculture training and the establishment of home gardens.



*Cooking demonstration using locally grown produce, Majuro Atoll, Marshall Islands.*

### Marshall Islands January 2019–June 2023

#### Output 1: Impact analysis to strengthen national strategic planning

The Marshall Islands did not directly participate in output 1 but benefitted from the regional presentations and discussions.

#### Output 3: Scale up resilient development measures in specific sectors

##### Planning and KRA 4: Coordination

Mar 2019	1st consultation
Jun 2019	Project sector selected – health; concept note approved
Jul 2019	2nd consultation with government agencies, island council representatives and NGOs
Dec 2019	PDD signed
Mar 2021	PDD amendment 1 signed
Apr 2021	National coordinator started
Jun 2021	PDD amendment 2 signed

<b>KRA 1: Enhance community and household-based atoll agriculture in selected atolls</b>	
<b>KRA 2: Foster lifestyle changes linking nutrition and wellness in selected atolls</b>	
Jan 2020	Start of Lifestyle and Climate Change Resilience (LCCR) project in Majuro and Jaluit atolls
Jan 2020 to Dec 2022	Atoll agriculture: agricultural assessments completed, home gardens established with raised beds and wicking systems, cooking classes, agricultural training and biological pest control measures delivered to residents and farmers in Majuro and Jaluit Atolls
Jan 2020 to Dec 2022	Wellness activities: health workers trained, health screenings conducted, walking groups and sports leagues established, village cleanliness competition conducted, and radio programmes aired on climate change and healthy lifestyles in Majuro and Jaluit Atolls
Dec 2022	Construction of a greenhouse in Jaluit Atoll completed
Apr 2023	External evaluation of LCCR project completed
Sep 2023	Summary publication on “Lifestyle changes and community resilience in the Marshall Islands” published
<b>KRA 3: Mainstreaming climate and disaster risk into the health sector</b>	
Jan 2020	1st climate change and health consultation workshop
Jul 2020	2nd climate change and health consultation and mapping workshop
Nov 2020	Draft of the National Climate Change and Health Policy and Revised Action Plan (NCCHP v2) prepared
Mar 2021	Final NCCHP v2 completed
Dec 2022	NCCHP v2 officially endorsed by the Ministry of Health and Human Services (MOHHS), launched and document published
<b>KRA 4: Coordination and communications</b>	
Jul 2020	1st Climate change and health youth seminar
May 2021	1st Climate change awareness week
Jul 2021	2nd Climate change and health youth seminar
Jul 2022	3rd Climate change and health arts youth seminar
Jun 2023	Video on “Healthy lifestyles in a changing climate” finalised and released

## Highlights output 3

The Government of Marshall Islands selected the health sector as their focus for output 3. The overall objective was to enhance sustainable health and food security to adapt to climate change in the Marshall Islands. The specific objective was to strengthen community health, lifestyles and atoll agriculture in selected atolls. The project had four KRAs: (1) enhance community and household-based atoll agriculture in selected atolls; (2) foster lifestyle changes linking nutrition and wellness in selected atolls; (3) mainstreaming climate and disaster risk into the health sector; and (4) coordination and communications.

The following are the output 3 highlights in the Marshall Islands:

- The GCCA+ SUPA project was presented to the Deputy Chief Secretary and other government agency representatives during a visit to the Marshall Islands in March 2019. The Marshall Islands selected health as the focus sector and the DUD corridor in Majuro Atoll and Jaluit Atoll as the project sites.
- The main implementing partners for the project activity were MOHHS and the Canvasback Wellness Centre, an established NGO based in Majuro which has a preferred service provider agreement with MOHHS to conduct community health activities to prevent non-communicable diseases (NCDs).
- The GCCA+ SUPA project scaled up the existing Community Lifestyle Programme which focused on community health in Majuro Atoll. A more holistic approach to climate resilience was adopted by adding sustainable agriculture activities, cooking classes, agriculture training, establishment of home gardens and expanding the programme to the DUD corridor on Majuro Atoll and to Jaluit Atoll.
- Activities in Jaluit and Majuro Atolls under the project included: agricultural assessments; setting up of 147 home gardens with raised beds and wicking systems for irrigation; 21 home gardening training sessions; training of 18 health workers to conduct health screening; equipment for health screening; 13 training events on nutrition, food safety and the preparation and cooking of locally grown vegetables; the establishment of 15 exercise groups with various activities for men, women and youth; and the airing of 15 radio shows featuring healthy lifestyles and climate change.
- A large greenhouse in Jaluit was constructed and training in seed production was provided to community members. Having the skills and materials to produce seeds will enable the Jaluit farmers to continue agricultural activities after the project ends.
- A people-centred approach was adopted throughout the project, and all the principles of the PLANET checklist were applied, with special attention focused on participation, accountability, non-discrimination, empowerment and transforming social norms.
- An external evaluation was conducted to assess the delivery and impact of the project activities in Majuro and Jaluit and concluded that while the behavioural and lifestyle changes may require generations to take effect, the GCCA+ SUPA project achieved significant progress in its three years of operation and laid a sound foundation.
- NCCHP v2 was developed through an extensive consultative process in 2020. It was endorsed by MOHHS, launched in December 2022 and published. NCCHP includes a prioritised five-year action plan with indicative costs and lead agencies identified.
- Annual climate change and health seminars for youth were conducted in 2020, 2021 and 2022, and in 2021 the project supported the first climate change awareness week in the Marshall Islands.
- Other atolls in the Marshall Islands are interested in seeking support to join a network of atolls promoting the GCCA+ SUPA enhanced LCCR, and proposals have been prepared to seek further support.
- A video on “Healthy lifestyles in a changing climate” presenting the results and achievements of the enhanced LCCR has been finalised.

## Challenges

- Due to travel restrictions brought about by COVID-19, during the implementation phase (2020–2022), consultations between the project team in Fiji, government partners in the Marshall Islands and the consultancy team preparing the NCCHP v2 were convened entirely through virtual meetings. This arrangement was hampered by poor internet connections and different time zones.
- The COVID-19 travel restrictions also delayed travel to Jaluit during some phases of project implementation.
- Although implementation of the LCCR project started in January 2020, the national coordinator was not appointed until April 2021.

## Lessons learnt

- Ensure that arrangements are in place for good communication, effective time management and inclusive collaboration during the delivery of multi-partner projects in the Marshall Islands.
- Using the people-centred approach to understand peoples' needs and their culture is essential for helping individuals change lifestyles in the face of climate change.
- Completing all project planning activities in the first year of the project (2019) provided the Marshall Islands a full three years for implementation of the activities.
- Utilising the final year of project implementation to focus on the formal and informal handover of key activities, as well as to deliver the final activities, will ensure continuity of at least some of the key activities.

### 3.6 Nauru

The Republic of Nauru lies approximately 0.5°S and 167°E. It is a single raised atoll with an area of 21 km<sup>2</sup> and a maximum elevation of 71 m. The island is surrounded by a fringing coral reef between 120 and 300 m wide. The highest point on the island is Command Ridge (71 m). The population of Nauru is 10,084 (2011 census). Nauru has a small economy, and the National Sustainable Development Strategy (2005–2025) includes a number of economic reform and management goals, with short- to medium-term priorities of stabilising, reviving and diversifying the economy. The narrow range of employment and income streams makes Nauru economically vulnerable to climate change.



*Installation in progress of tank base at one household, Nauru*

The project used a consultative and people-centred approach to: (i) prepare a methodology for impact analysis of past projects and share it with participants from Nauru (output 1); and (ii) increase production, delivery and storage of desalinated water to households, communities and businesses in Nauru (output 3).

### Nauru January–June 2023

Output 1: Impact analysis to strengthen national strategic planning	
Nov 2022	Representatives from Nauru participated in the applied training in impact analysis and the impacts database held in Fiji
Output 3: Scale up resilient development measures in specific sectors	
Planning and KRA 4: National coordination	
Mar 2019	Presentation of GCCA+ SUPA project at an inception meeting in Fiji attended by a representative from Nauru
Oct 2019	Project sector selected – water security Implementing agency identified – Department of Climate Change and National Resilience (DCCNR)
Jan 2020	National coordinator commenced In-country consultation held
Feb 2020	Concept note approved
April 2020	PDD signed
Dec 2020	PDD amendment 1 signed
Jun 2021	PDD amendment 2 signed

<b>KRA 1: Selection of households for enhanced water storage</b>	
Apr 2020	Criteria and on-the-ground checklist developed using the people-centred approach to select the most vulnerable households
Oct 2020	List of most vulnerable households endorsed by national steering committee and Cabinet
Oct 2020	Community based impact assessment conducted of Colorbond tank installations from a previous project completed
Sep 2021	Vehicle delivered to DCCNR to facilitate delivery of project activities
Jun 2023	Agreements between the Government of Nauru and recipient households signed confirming the recipients' responsibility for the maintenance of the water storage systems
<b>KRA 2: Purchase and install water storage measures (tanks, concrete base, taps) for selected households</b>	
Oct 2021	Ninety-eight plastic tanks (76 x 10,200 L and 22 x 5300 L) delivered to Yaren Port, Nauru
Jan 2022	Plumbing and construction materials for the installation of the tanks delivered to Yaren Port, Nauru
Jan 2022	Confirmation from the Government of Nauru to use its own resources to fund the installation of the tanks at the recipient households
Dec 2022	Installation of 96 tanks on concrete bases and with plumbing accessories (taps and washout outlets) at selected houses completed
Jun 2023	Delivery of 96 pumps and additional accessories to DCCNR to directly connect the water tanks to the recipient houses as per request from the Government of Nauru
<b>KRA 3: Household training in maintenance and awareness campaign</b>	
Mar 2021	World Water Day activities held, including school and video competitions, radio quizzes and exhibition
Jan 2023	Demonstration on how to repair polyethylene water tanks
May 2023	Communication materials: Two videos completed: "Six essential tips for maintaining plastic water tanks" and "Securing Nauru's water lifeline for the most vulnerable people"
Jun 2023	Maintenance tools for recipients of the 96 tanks delivered to Yaren Port, Nauru
Jun 2023	Planned maintenance training workshop scheduled (cancelled due to an emergency situation with the uncovering of an unexploded World War II ordinance at the new port construction site)



## Highlights output 1

Representatives from Nauru participated in the applied training in impact analysis and the impacts database held in Fiji in November 2022. The purpose of this workshop was to share the “light” version of the methodology to analyse past actions and learn from their successes and failures so as to improve strategic planning in the future.

## Highlights output 3

The Government of Nauru selected the water sector as the focus for output 3. Households in Nauru purchase desalinated water for drinking and domestic purposes, which is delivered to individual water storage tanks and accounts for 70–80% of water needs in Nauru. The remaining 20–30% is supplied through rainwater harvesting, bottled water and groundwater sources.

The overall objective of the project was to reduce vulnerability in the water sector for Nauru’s communities. The specific objective of the project was to contribute to increased water storage for vulnerable households in Nauru. The project had four KRAs: (1) selection of households for enhanced water storage; (2) purchase and install water storage measures (tanks, concrete base, taps) for selected households; (3) household training in maintenance and awareness campaign; and (4) national coordination.

The following are the output 3 highlights in Nauru.

- The GCCA+ SUPA project was presented to the countries at an inception meeting in Fiji in March 2019. Following this meeting, water security was selected as the focus sector and DCCNR as the implementing agency.
- The project successfully applied a people-centred approach to identify the most vulnerable households. A set of criteria was developed for selection and verified with census data and on-the-ground checks. A video has been prepared on the process: “Securing Nauru’s water lifeline for the most vulnerable people”.
- The criteria and final list of 96 recipient households were approved by the national steering committee and the Cabinet.
- The project provided 96 recipient households with water tanks (74 x 10,200 L and 22 x 5300 L tanks) for the storage of desalinated water. The tanks have been installed on concrete slabs with taps and washout outlets. Beneficiaries have signed agreements confirming their responsibility for maintenance of the systems. Beneficiaries have also been provided with tools to maintain the tanks.
- The Government of Nauru used its own resources to fund the construction of the concrete bases and the placement of the tanks and taps at the recipient households as a direct contribution to the project.
- Ninety-six pumps and additional accessories were purchased and delivered to Yaren port, Nauru to connect the water tanks to the recipient houses (the Government of Nauru has committed to installing the pumps outside of the GCCA+ SUPA project using its own resources).
- A video on the repair and maintenance of plastic tanks has been prepared and distributed.
- Awareness activities included competitions, radio quizzes and exhibitions as part of World Water Day activities.

## Challenges

- COVID-19 travel restrictions posed a major implementation challenge. The pandemic affected the well-being of all Pacific islanders in a variety of ways, such as through isolation, illness and financial instability. The travel restrictions brought about by COVID-19 meant that consultations between the project team at SPC Fiji and government partners in Nauru for project planning and design were convened entirely through virtual meetings. This arrangement was hampered by poor internet connections.
- Significant challenges had to be overcome in the procurement of materials, in particular plumbing materials. Due to the COVID-19 travel restrictions and global supply chain disruptions, several items were difficult to source, and shipment schedules were significantly disrupted with continuous delays. Increases in the price and shipment of materials and shipping were also experienced over the course of the project.
- Recipient homeowners were not present during the construction work, and the presence of guard dogs created a risk for the contractors and oversight personnel.
- Several revisions had to be made to the list of recipient households due to residents relocating.

## Lessons learnt

- Applying a people-centred approach in the design, planning and implementation of the project is critical to achieve acceptable and culturally appropriate measures.
- An inclusive community consultation approach that considers all members of the communities, including women, youth, the elderly, and persons with disabilities, is important for informed planning and implementation.
- Having countries select the area of national focus and the project activities provides for national ownership and building resilience.
- Conducting impact assessments of past projects provides for sustainability of specific actions.
- Including criteria such as the identification of local suppliers, availability of replacement materials and spare parts, and servicing requirements are important criteria to include in the design of measures.

### 3.7 Niue

Niue is a raised atoll with a land area of 259 km<sup>2</sup>. It is situated in the southwest Pacific Ocean (19°S, 169°W) about 2400 km northeast of New Zealand. Niue is characterised by three terraces: the rim of the lower terrace averages 28 m above sea level, with the upper rim averaging 69 m above sea level. The slopes of the terraces are rough with jagged coral outcrops. The island has a rugged, rocky coastline, featuring steep cliffs, caves, deep chasms and blowholes. There are 14 villages distributed around the island's coast, one of which is Alofi, the capital. The resident population of Niue is 1624 (2016). The Niuean economy suffers from many constraints, including its size, geographic isolation, few resources and a small population. This makes Niue economically vulnerable to changes related to climate change.



*Training in management and maintenance of rainwater harvesting systems in Hakupu Village, Niue*

The project used a consultative and people-centred approach to address water security issues in selected households and strengthen the water quality monitoring programme throughout Niue (output 3).

### Niue January 2019–June 2023

Output 1: Impact analysis to strengthen national strategic planning	
Niue was not directly involved in the impact analysis work but benefitted from the regional presentations and discussions	
Output 3: Scale up resilient development measures in specific sectors	
Planning and KRA 4: National coordination	
Mar 2019	Presentation of GCCA+ SUPA project at an inception meeting in Fiji attended by a representative from Niue
Aug 2019	1st project consultation with the Department of Environment in Niue
Sep 2019	Concept note approved; water security is the selected sector
Oct 2019	2nd project consultation in Niue
Jul 2020	PDD signed
Jun 2021	PDD amendment 1 signed
May 2023	PDD amendment 2 signed

<b>KRA 1: Rainwater harvesting systems fully installed in selected occupied households</b>	
May 2021	Completion of stocktake of existing construction/plumbing materials remaining from previous climate change projects
Sep 2021	Spreadsheet of occupied households and rainwater tank status, and identification of households requiring installation
Jan 2022	Engineering designs and bill of quantities for the household rainwater harvesting systems prepared
Dec 2022	Installation of rainwater systems commenced
May 2023	All construction and plumbing materials for water tank installation delivered to Niue
May 2023	Household maintenance training delivered
	List of selected households revised and finalised
	Household agreements signed by all 50 householders receiving installations
June 2023	Installations at the 50 households completed
	Submission of compliance report for the 50 households
<b>KRA 2: Water quality monitoring programme strengthened for government departments and established for householders with rainwater harvesting systems</b>	
Dec 2020	Water quality equipment delivered to Public Health Department in Niue
Jan 2021	Vehicle provided to Public Health Department to support regular water quality monitoring
Nov 2022	Training delivered to staff of Public Health and other participants in Niue on water quality testing and analysis and the shipping of infectious substances

## Highlights output 1

Niue was not directly involved in the trialling or application of the impact analysis methodology; however, they benefitted from the presentations and discussions on impact analysis at the regional meetings.

## Highlights output 3

The Government of Niue selected water security as the focus for output 3. The overall objective of the GCCA+ SUPA project was to enhance climate change resilience and reduce vulnerability in the water sector for Niue's communities. The specific objective was to contribute to an efficient and effective backup water system for households in Niue. The four key result areas were: (1) rainwater harvesting systems fully installed in selected occupied households; (2) water quality monitoring programme strengthened for government departments and established for householders with rainwater harvesting systems; (3) review and update the climate change framework and design a SOP for the Climate Change Unit; and (4) national coordination of the project activities.

During a previous project, polyethylene tanks were manufactured at the moulding facility in Niue and distributed to households without tanks with the expectation that the householders would complete the installation. However, householders encountered many problems, including the absence of the necessary installation

material in Niue. The GCCA+ SUPA project was designed to complete the installation process. Rainwater supply is an important supplementary source of fresh water in Niue, especially at times when the reticulated water supply is contaminated or disrupted, such as in 2020 when coliform bacteria were detected in the aquifer.

The following are the project highlights in Niue:

- The GCCA+ SUPA project was presented to the countries at an inception meeting in Fiji in March 2019, which was attended by a representative from Niue. Following this, a national consultation was conducted in August during which water security was selected as the sector focus. The activities for the PDD were designed at a 2nd consultation workshop in November 2019.
- The Department of the Environment was the main implementing agency in collaboration with the Public Works Department, Ministry of Health and Ministry of Finance.
- A village survey to update the 2018 village data showing the number of households requiring assistance with rainwater harvesting system installation was conducted in 2021. It was determined that a total of 157 households across nine villages required either partial or full installation.
- In view of the continuous water disruptions and contamination of the underground aquifer in Niue, a second assessment was conducted in January 2022 to prioritise the selected households based on water needs and accessibility. As a result, 50 priority households were identified. The selection criteria included vulnerability to power disruptions, proximity to village water sources, and households with vulnerable members such as persons with disabilities or elderly persons.
- A stocktake of all remaining plumbing and construction materials from previous climate change/water projects was conducted.
- In 2022, the engineering design for the rainwater harvesting water systems for the 50 selected households was finalised and taking the remaining materials into consideration, a bill of quantities was prepared, and the materials procured and delivered.
- Fifty household agreements were signed by the selected beneficiary households.
- Between May–June 2023, 50 household installations were completed, and a maintenance training on the rainwater measures delivered by the Ministry of Infrastructure was conducted for the 50 homeowners.
- To scale up water quality monitoring and assessment, the GCCA+ SUPA project equipped the Public Health Department with a vehicle and water quality laboratory equipment and conducted a training workshop on water quality and a certification training on the shipment of hazardous and infectious substances.
- Since 2021, the project has been supporting awareness raising in Niue relating to climate change adaptation and water security. Specific activities include presentations and talks to schools and the general public on water issues/management and climate change impacts on water. The Department of Environment developed a brochure titled “Enhancing water security and resilience to climate change in Niue”, which provided details on the water security initiatives under the GCCA+ SUPA project and steps in maintaining rainwater harvesting measures. The brochures and 200 project tote bags and water bottles were distributed to school students, teachers and the general public.

## Challenges

- Border closures and restrictions as a result of the COVID-19 pandemic impacted the delivery and scope of the project in Niue. This included the hiring of external consultants for the climate change framework activity under KRA 3, which had to be cancelled.
- Similarly, significant challenges have had to be overcome in the procurement of materials, in particular plumbing materials. Due to COVID-19, several items were difficult to source, prices fluctuated between quoting and invoicing, and shipment schedules were significantly disrupted. A major setback was the introduction of a new biosecurity requirement by Niue while materials were en route to Niue. The new requirement was for the fumigation of all goods arriving in Niue. Due to this, the first shipment containing construction materials was rejected upon arrival and returned to Fiji for fumigation, and three months were lost in the process.
- Niue experienced above average rainfall from December 2022 to June 2023, which impeded the installation of the rainwater installations, especially the construction of concrete bases.
- Competing infrastructure projects in Niue such as the road and runway upgrade exacerbated the issue of labour shortage.
- Several plumbing materials ordered from international suppliers were not compatible with the standards in Niue and had to be modified to be made fit for purpose.

## Lessons learnt

- One of the positive outcomes seen from the border closures was the extensive reliance on the national coordinators for facilitation, mobilisation and management of local resources and partners in the countries. This was seen as an upskilling for national coordinators.
- Encourage local suppliers to bid in the procurement of construction and plumbing materials for ease of access and material clarifications and compatibility.
- Inclusion of shipment delays and transportation cost increases to be factored into planning risk matrices in the design stage.
- Community consultation and clear messaging relating to project scope and activities throughout project implementation are important to obtain community support and clarity.
- Regular update meetings between all the national implementation agencies and partners are essential for coordinated on-the-ground implementation and rectifying issues as they arise.

### 3.8 Palau

The Republic of Palau is located in the northwest Pacific Ocean, 800 km east of the Philippines, and has a total land area of 535 km<sup>2</sup>. There are over 500 islands in Palau, most of which are the small, uninhabited Rock Islands, and only nine islands are currently inhabited. The country is divided into 16 states. The population of Palau is 17,661 (2015 census) and around 65% (11,444 persons) live in Koror, with a further 14% (2455 persons) living in the adjacent state of Airai.

The project used a consultative and people-centred approach to conduct an impact assessment on past water security and agricultural measures in Koror and Babeldaob (output 1); and address environmental health in Aimeliik, Airai, Ngardmau, Ngaremlengui, Ngatpang States, supported by education, communication and outreach in all states of Palau (output 3).



*High school students in Palau conducting a microplastics survey*

### Palau January 2019–June 2023

Output 1: Impact analysis to strengthen national strategic planning	
Mar 2021	National consultant commenced
Aug 2022	Testing of the full methodology on water security and agricultural measures in Angaur and Babeldaob, and snapshot report published
Nov 2023	A team from Palau participated in the applied training in impact assessment and the impacts database held in Fiji
Mar 2023	Impact assessment methodology shared with Palau Energy and Water Administration
Jun 2023	A team from Palau participated in the subregional applied training for the light version of the impact assessment methodology held in Samoa
Output 3: Scale up resilient development measures in specific sectors	
Planning and KRA 3: Coordination and reporting	
Mar 2019	Presentation of GCCA+ SUPA project at an inception meeting in Fiji attended by a representative from Palau
May 2019	1st consultation with the National Climate Change Coordination Committee (NC4)
Jun 2019	Project sector selected – health, and concept note approved
Aug 2019	2nd consultation with NC4 to prepare the PDD

<b>Planning and KRA 3: Coordination and reporting</b>	
May 2020	PDD signed
Sep 2020	PDD amendment 1 signed
Oct 2020	National coordinator and finance officer commenced
Jun 2021	PDD amendment 2 signed
Jul 2021	Monitoring and evaluation (M&E) workshop for all implementing partners in Palau
Mar 2023	5th and final GCCA+ SUPA steering committee and lessons learnt meeting held in Palau
<b>KRA 1: Reduce vulnerability to water and vector borne diseases in Aimeliik, Airai, Ngardmau, Ngaremlengui, Ngatpang States</b>	
Nov 2020	Vehicle for environmental health monitoring delivered to Ministry of Health
May 2021	Environmental health monitoring equipment delivered
Dec 2022	Environmental health monitoring programme delivered in five states, including town hall meetings, training in the prevention of vector-borne diseases and water quality testing, and household vector surveillance
Aug 2021	MoU between the five state governors and national government agencies for the enhancement of WASH facilities at emergency shelters
June 2023	Rainwater harvesting systems installed at emergency shelters in the five states
<b>KRA 2: Strengthen climate resilience through communication, education and outreach in Palau</b>	
Apr 2020	Request received from the Government of Palau for the purchase of radio equipment to be fast tracked to help Palau address the global COVID-19 pandemic and provide the public with daily, accurate preparedness information about the pandemic
Aug 2020	Radio broadcasting equipment and vehicle for the production of live broadcasts delivered
Sep 2022	National communication plan for the Ministry of State radio station formally adopted
Dec 2022	Radio station (Eco Paradise FM) fully operational, providing live coverage of the President's weekly addresses, warnings of extreme events, climate change resilience programmes and other news items
Dec 2022	Training and equipment provided to 75% of Grades 7 and 9 teachers in the monitoring of ocean and coastal pollution and its impact on climate change and human health; monitoring programme integrated into the school science curriculum



## Highlights output 1

Palau was one of the four countries to trial the extended version of the impact analysis methodology. The two past projects selected for analysis covered food production in Babeldaob, supported by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Adapting to Climate Change and Sustainable Energy project, and water security in Angaur, supported by the GCCA: PSIS project.

The following are the output 1 highlights in Palau.

- The main implementing partner for the impact analysis was the Palau Conservation Society.
- The trial of the extended version of the impact analysis methodology was conducted over a 15-month period starting in January 2021 and included research into past projects, data collection and field trials of the methodology.
- The final snapshot impact analysis report was published in September 2022 and showed each project received a scoring of “high (positive) impact”, with 2.9 out of a total of 4 for food production in Babeldaob and 2.5 out of a total of 4 for water security in Angaur.
- Palau featured in three of the practice learning sessions conducted between June and August 2022 and shared the context and results of their activities for outputs 1 and 3.
- Palau participated in the regional applied training in impact analysis methodology and the impacts database in Fiji in November 2022.
- A workshop was conducted in March 2023 with the Palau Energy and Water Administration to discuss a climate change mitigation impact assessment methodology focusing on renewable energy.
- Palau participated in the subregional applied training for the light version of the impact analysis methodology in Samoa in June 2023.

## Highlights output 3

The Government of Palau selected the health sector as their focus for output 3. The overall objective of the project was to promote and scale up climate resilience practices in Palau. The specific objective was to improve access to safe water in selected states and the sharing of information nationwide. The project had three key result areas: (1) vulnerability to water and vector-borne diseases in selected states reduced; (2) climate resilience through communication, education and outreach in Palau strengthened; and (3) project coordination activities.

The following are the output 3 highlights in Palau:

- The GCCA+ SUPA project was presented to the countries at an inception meeting in Fiji in March 2019. Following this and after two in-country consultations, Palau selected environmental health in Aimeliik, Airai, Ngardmau, Ngaremlengui and Ngatpang States as the focus sector, supported by education, communication and outreach in all states of Palau. This arrangement was seen as a way of strengthening NC4, which has the mandate to implement the 2015 climate change policy and action plan.
- The main implementing partner was the Office of Climate Change in the Ministry of Finance, in collaboration with the Ministry of Health, Ministry of State, Ministry of Education and the Environmental Quality Protection Board.
- The GCCA+ SUPA project provided a vehicle, equipment and test kits to the Division of Environmental Health. They in turn conducted town hall meetings, provided training for the public and state officers on water quality, and conducted household vector assessments. These activities when combined enhanced the vector surveillance programme such that it now covers 80% of Koror State and the states in Babeldaob.

- Rainwater harvesting systems were installed at the emergency shelters in Aimeliik, Airai, Ngardmau, Ngaremlengui and Ngatpang, and an MoU was signed with the state governors to cover maintenance after the project ends.
- The Ministry of State Radio Station (Eco Paradise FM) is now fully operational with the support of the radio equipment and vehicle provided by the GCCA+ SUPA project. A schedule involving nine different agencies has been established for live broadcasts covering climate change, disaster risk, weather, presidential briefings, culture and education notices.
- The fast-tracking of the procurement of the equipment required for the radio station helped Palau address the global COVID-19 pandemic and provide the public with daily, accurate preparedness information about the pandemic.
- The first-ever communications plan for the radio station has been prepared, and this together with the equipment provided by the project has been instrumental in leveraging additional funding, e.g. the new AM tower funded by the United Nations Development Programme now allows broadcasts to reach all states of Palau and countries beyond.
- The Ministry of Education's school programme for Grades 7 and 9 students to monitor coastal pollution, and specifically micro, meso and macro plastics, has been expanded and strengthened such that it is now integrated into the school science curriculum.
- A people-centred approach was adopted in all the project activities, e.g. walk-through assessments conducted with individual householders were among the vector surveillance activities, the Eco-Paradise radio station has reached the most isolated communities, and youth are the focus of the coastal pollution monitoring.
- A three-day monitoring and evaluation workshop, held midway through the implementation period and designed to strengthen the capacity of Palau's implementing team, helped the project team deliver all the outputs in a timely and effective manner.

## Challenges

- Due to travel restrictions brought about by COVID-19, consultations between the project team at SPC Fiji and government partners in Palau during the project implementation period were convened entirely through virtual meetings. This arrangement was hampered by poor internet connections and different time zones.

## Lessons learnt

- The multi-sector agency approach adopted by Palau strengthened NC4 and the implementation of the national climate change policy and action plan. The approach also allowed for leveraging off other project activities.
- The scaling up and equipment upgrade of the radio station and the preparation of the Ministry of State's communications plan were instrumental in securing funding support from the United Nations Development Programme for the AM tower.
- The people-centred approach utilised throughout the project, and especially the household assessments conducted as part of the vector-borne disease prevention programme, provided a comfortable and flexible space for householders to voice their needs and receive advice on environmental health mitigation measures.
- Sustainability of education and awareness activities was achieved through a 'train the trainers' approach and integration of the coastal pollution monitoring into the school curriculum.

### 3.9 Tonga

The Kingdom of Tonga is a constitutional monarchy located in the central South Pacific Ocean and lies between 15° and 23°S and 173° and 177°W. Tonga has a land area of 649 km<sup>2</sup> and is an archipelago of 172 coral and volcanic islands, of which 36 are inhabited. Tonga consists of four main island groups: (1) Tongatapu and 'Eua in the south, (2) Ha'apai in the middle, (3) Vava'u in the north, and (4) Niufo'ou and Niua Toputapu in the far north. The population of Tonga is 101,436 (2016 census). Tonga has a small economy that is heavily reliant on remittances from Tongans living and working overseas. This narrow range of employment and income streams makes Tonga economically vulnerable to changes in the country's physical environment, including those related to climate change.



*Planting mangroves, Tongatapu, Tonga*

The project used a consultative and people-centred approach to (i) conduct an impact analysis of past coastal protection measures on the north coast of Tongatapu (output 1), and (ii) plan and implement hard and soft coastal engineering protection measures for the communities on the northern coast of Tongatapu (output 3).

#### Tonga January 2019–June 2023

Output 1: Impact analysis to strengthen national strategic planning	
Feb 2021	National consultant commenced
Sep 2022	Testing of the full methodology on coastal protection measures on the north coast of Tongatapu completed, and snapshot published
Nov 2022	A team from Tonga participated in the applied training in impact analysis and the impacts database held in Fiji
June 2023	A team from Tonga participated in the subregional applied training for the light version of the impact assessment methodology held in Samoa
Output 3: Scale up resilient development measures in specific sectors	
Planning and KRA 4: Coordination	
Mar 2019	Presentation of GCCA+ SUPA project at an inception meeting in Fiji attended by a representative from Tonga
Jun 2019	1st consultation with government agencies and NGOs
Jun 2019	Concept note approved
Aug 2019	2nd consultation with government agencies, NGOs and community representatives

<b>Planning and KRA 4: Coordination</b>	
Dec 2019	PDD signed
May 2020	National coordinator and finance assistant started
Jul 2020	PDD amendment 1 signed
Dec 2020	PDD amendment 2 signed
Jun 2021	PDD amendment 3 signed
<b>KRA 1: Conduct a coastal assessment, feasibility, and conceptual design study for coastal protection along the entire north coast of Tongatapu (Niutoua to Ha'atafu)</b>	
Dec 2020	Desktop assessment for coastal protection along the north coast of Tongatapu
Mar 2021	Conceptual design and preliminary costing, including community consultations, for coastal protection along the north coast of Tongatapu completed (version 1)
Aug 2021	Detailed design of selected small-scale coastal protection measures (version 1)
Dec 2021	Environmental impact assessment of selected small-scale measures completed
Jan 2022	Eruption of the Hunga Tonga Ha'apai underwater volcano and tsunami event
May 2022	Revised design of selected small-scale coastal protection measures since the January tsunami completed (version 2)
Jun 2023	Conceptual design and preliminary costing for coastal protection along the north coast of Tongatapu (version 2)
<b>KRA 2: Implement small-scale coastal protection and ecosystem-based measures in northwest Tongatapu (Sopu to Ha'atafu)</b>	
Sep 2022	Commencement of remedial coastal protection measures (reconstruction of rock revetment and repair of non-return valves) in Kanokupolu
Sep 2022	Oversight engineer contracted to monitor progress of remedial works in Kanokupolu
Mar 2023	Six public warning signs at six selected communities, Sopu, Puke, Fatai, Nukunuku, Te'ekiu and Masilamea, constructed in northwest Tongatapu
Jun 2023	Construction of remedial measures in Kanokupolu completed
Jun 2023	More than 8000 mangrove/coastal vegetation seedlings planted
Jun 2023	Mangrove/coastal vegetation nursery established in Hihifo
<b>KRA 3: Enhance awareness about the impact of climate change and natural disasters in Tonga</b>	
Sep 2020/2021/2022	Climate change awareness week activities
Jun 2021	Training for youth groups on mangroves and climate resilience
Aug 2021	Training on community leadership for town officers and other local government officers completed
May 2022	Talanoa session with youth & elders to discuss traditional knowledge & climate resilience
Jun 2022	Stand-alone server system for the Tonga climate change portal installed
Jun 2023	Video was prepared on "Scaling up coastal protection in Tonga 2014 to 2023"

## Highlights output 1

Tonga was one of the four countries to trial the extended version of the impact analysis methodology, which was carried out by consultants. The past projects selected for analysis focused on coastal protection at: (i) Ahau, northwestern Tongatapu, supported by the Pacific Adaptation to Climate Change Plus, and (ii) at Talafo'ou and Makaunga, northeastern Tongatapu, supported by the GCCA: PSIS project.

The following are the output 1 highlights in Tonga.

- The main implementing partner for the impact analysis was a local consultant.
- The trial of the extended version of the impact analysis methodology was conducted over a 20-month period starting in February 2021 and included research into past projects, data collection, GIS mapping and field trials of the methodology.
- The final snapshot impact analysis report was published in September 2022 and showed the Ahau project received a scoring of “medium (positive) impact”, with 1.75 out of a total of 4, and the Talao'ou and Makaunga project received a scoring of “medium (positive) impact”, with 1.9 out of a total of 4.
- Tonga featured in one of the practice learning sessions conducted between June and August 2022 and shared the context and results of their activities for outputs 1 and 3.
- Tonga participated in the regional applied training in impact analysis methodology and the impacts database in Fiji in November 2022.
- Tonga participated in the subregional applied training for the light version of the impact analysis methodology in Samoa in June 2023.

## Highlights output 3

The Government of Tonga selected the coastal protection sector as their focus for output 3. The overall objective was for a holistic approach to coastal protection in northern Tongatapu to be adopted by the government. The specific objective of the project was to better equip communities to undertake small-scale coastal protection measures (hard and soft engineering). The project had four KRAs: (1) conduct a coastal assessment, feasibility, and conceptual design study for coastal protection along the entire north coast of Tongatapu (Niutoua to Ha'atafu); (2) implement small-scale coastal protection and ecosystem-based measures in northwest Tongatapu (Sopu to Ha'atafu); (3) enhance awareness about the impact of climate change and natural disasters in Tonga; and (4) coordination.

The following are the output 3 highlights in Tonga.

- The GCCA+ SUPA project was presented to the countries at an inception meeting in Fiji in March 2019. Following this and after two consultations, Tonga selected coastal protection as the focus sector and the north coast of Tongatapu as the project site.
- The main implementing partner was the Climate Change Department in the Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC).
- The “Conceptual design and preliminary costing for coastal protection along the north coast of Tongatapu” was finalised in 2023. This was first prepared in 2021 and then revised after the January 2022 tsunami. It represents a comprehensive foundation for use by potential donors wishing to assist Tonga's post-tsunami and coastal protection efforts.
- A 1.35-km-long coastal revetment at Kanokupolu was widened and heightened, non-return valves were replaced and a boat ramp was rebuilt. This was a remedial measure following the January 2022 tsunami and prioritised by MEIDECC and the communities.

- A mangrove nursery was established at Nukunuku with arrangements in place for the Nukunuku youth group to continually restock and maintain the nursery. More than 8000 mangrove/coastal vegetation seedlings were planted along 30 hectares of coastal land in northwestern Tongatapu, contributing to the government's commitment of one million trees planted by 2030 as part of Tonga's commitment to the United Nations Framework Convention on Climate Change – Conference of Parties.
- Skills in climate resilience were enhanced for community representatives, town officers and youth through training in community leadership, proposal writing and mangrove planting as an ecosystem-based approach to coastal protection.
- A people-centred approach was adopted in all the project's activities, e.g. communities were consulted at several stages in the preparation of the coastal protection plan; youth and community groups were involved in the mangrove planting activities; and communities were consulted regarding the selection of Kanokupolu as the site for post-tsunami remedial measures.
- Recognising the importance of climate change awareness, support was provided to Tonga's climate change awareness week activities in 2020, 2021 and 2022. This included tree planting, coastal clean-ups and video competitions. A stand-alone server for the Tonga climate change portal was provided to the Department of Climate Change.
- A video was prepared "Scaling up coastal protection in Tonga 2014 to 2023".

## Challenges

- Due to travel restrictions brought about by COVID-19, consultations between the project team at SPC Fiji and government partners in Tonga during the project implementation period were convened entirely through virtual meetings. This arrangement was hampered by poor internet connections.
- The January 2022 tsunami had a major physical impact on Tongatapu, especially the north coast, and a psychological impact on Tongan residents. In addition, the underwater fibre optic cable was severed, and there was no communication with Tongan partners for at least a two-month period. The tsunami resulted in having to refocus and redesign the project activities, especially those relating to the design and implementation of the engineering and ecosystem-based measures.

## Lessons learnt

- Applying a people-centred approach in the design, planning and implementation of the project is critical to achieve acceptable and culturally appropriate measures.
- An inclusive community consultation approach that considers all members of the communities including women, youth, elders and persons with disabilities is important for informed planning and implementation.
- A flexible approach is encouraged as decisions and needs are likely to change between design and implementation phases. Careful attention to planning for natural disasters in risk matrices and scheduling is necessary in the design phase.
- Focusing capacity-building training on climate resilience for youth and children provides a good foundation for future leaders.

### 3.10 Tuvalu

Tuvalu is an island archipelago in the South Pacific Ocean comprised of nine islands, six of which are low-lying atolls and three being raised limestone islands, with the highest elevation point 5 m above sea level and a land mass of 27 km<sup>2</sup>. The country has a population of 10,645 (2017 census), with over 60% residing in the capital island Funafuti. Tuvalu's economic growth is constrained by a number of factors, including the country's geographical isolation from international markets, small land mass and limited natural resources. The projected impacts of climate change, including increased temperature, ocean acidification and sea-level rise, will compound the economic and environmental challenges existing in Tuvalu.



*Rainwater harvesting system at Fetuvalu Secondary School, Funafuti, Tuvalu*

The project used a consultative and people-centred approach to prepare a methodology for impact analysis of past projects and share it with participants from Tuvalu (output 1) and address water security in Funafuti and the outer islands of Tuvalu (output 3).

### Tuvalu January 2019–June 2023

Output 1: Impact analysis to strengthen national planning	
Nov 2022	Representatives from Tuvalu participated in the applied training in impact analysis and the impacts database held in Fiji
Output 3: Scale up resilient development measures in specific sectors	
Planning and KRA 4: National coordination	
Mar 2019	Presentation of GCCA+ SUPA project at an inception meeting in Fiji attended by a representative from Tuvalu
Mar 2020	Project sector selected – water security
May 2020	Concept note approved
Sep 2020	PDD signed
Mar 2021	National coordinator commenced
Jun 2021	PDD amendment signed
Nov-Dec 2021	GCCA+ SUPA project showcased at climate change awareness week in Funafuti
Mar 2022	GCCA+ SUPA project showcased at the world water day event in Funafuti

<b>KRA 1: Procurement of a portable and solar powered desalination plant</b>	
Jan 2021	Assessment report on existing desalination units in Tuvalu completed
Apr 2021	Preliminary assessment of rainwater systems in seven preschools in Funafuti completed
Apr 2022	Desalination unit with accessories and solar panels delivered to Funafuti
Nov–Dec 2022	Commissioning and maintenance training provided to Public Works Department (PWD), Tuvalu
<b>KRA 2: Refurbish and maintain water systems in Fetuvalu Secondary School (FSS), Seventh Day Adventist (SDA) Primary School and seven preschools in Funafuti</b>	
May 2021	Assessment of rainwater systems in FSS and SDA Primary School completed
Oct 2021	Engineering design and full material list for FSS and SDA Primary School completed
May 2022	Construction and plumbing materials for FSS and SDA Primary School delivered in Tuvalu
Jun 2022	Work commenced on the installation of rainwater measures in FSS and SDA Primary School
Aug 2022	Water tanks for FSS and SDA Primary School delivered in Tuvalu
Dec 2022	Installation of rainwater measures completed at FSS and SDA Primary School
Apr 2023	Engineering design and material list for Olave and Vaiaku preschools completed
May 2023	All materials delivered for hand washing stations for Olave and Vaiaku preschools
Jun 2023	Maintenance and water management training provided to staff and students at FSS, SDA Primary School, Nauti Primary School and the seven preschools in Funafuti
<b>KRA 3: Procurement of a 10,000-L water truck</b>	
Jul 2022	Supply and delivery contract for two water tanker trucks to Funafuti signed
Oct 2022	Two x 10,000-L water trucks delivered to Funafuti, Tuvalu

## Highlights output 1

Representatives from Tuvalu participated in the applied training in impact analysis and the impacts database held in Fiji in November 2022. The purpose of this workshop was to share the “light” version of the methodology to analyse past actions and learn from their successes and failures so as to improve strategic planning in the future.

## Highlights output 3

The Government of Tuvalu initially selected coastal protection as their focus for output 3. After further consultation with EUD and SPC, the focus sector was changed to water security. The overall objective of the project was to strengthen water security in Tuvalu through the improvement of water catchments and access to water. The specific objective was to improve the supply, storage and distribution of potable water to communities and schools in Funafuti. The project had four key result areas: (1) purchase of a portable, solar powered, desalination plant; (2) refurbishment of the water systems in the SDA Primary and SDA Secondary Schools; (3) procurement of a 10,000-L water truck; and (4) national coordination of the project activities.



In Tuvalu, the primary water source is from rainwater catchment systems and desalination. Groundwater is classified as non-potable in most islands due to high salinity levels and pollution, mostly from improper sanitation systems and livestock waste.

The following are the output 3 highlights in Tuvalu:

- The GCCA+ SUPA project was presented to the countries at an inception meeting in Fiji in March 2019. After initially considering coastal protection as a focus sector, Tuvalu confirmed water security as the focus sector in March 2020 and Funafuti as the project site.
- The main implementing partners for the project activities were the Climate Change Department, Ministry of Finance and PWD, Ministry of Public Utilities, Infrastructure, Environment, Labor, Meteorology and Disaster.
- A national coordinator was recruited in March 2021 and continued in position until June 2023.
- Applying the people-centred approach, a special focus was directed towards children and youth in the design of the project activities.
- In October 2021, a full engineering design of the additional rainwater systems at FSS and SDA Primary School, including a bill of quantities, was completed. A local construction contractor was hired to install the rainwater harvesting systems at FSS and SDA Primary School. The installation was successfully completed in December 2022, adding an additional 122.4 kL storage capacity.
- Following an engineering assessment of the seven preschools, Tuvalu selected Olave and Vaiaku preschools in Funafuti for the installation of hand washing facilities, and a full design was completed. The materials were provided by the GCCA+ SUPA project, and the Government of Tuvalu committed to install the facilities with its own resources.
- In June 2023, a series of trainings were delivered to teachers and students of FSS, SDA Primary School, Nauti Primary School and the seven preschools in Funafuti on water management and maintenance of the water measures in the schools.
- In April 2022, Tuvalu received a solar-powered mobile 20 m<sup>3</sup>/day desalination unit with an additional generator. This had been designed for shipment to the outer islands in times of drought. Installation and commissioning of the unit, including operations and maintenance training, were provided in November 2022 to the PWD engineers.
- In October 2022, two x 10,000-L water tanker trucks were delivered in Funafuti to improve water delivery to residences, schools, businesses and government facilities. An official handing over of the trucks from the Climate Change Department to PWD took place on 28 October 2022.
- Between November and December 2021, the project was one of the major supporters of the climate change awareness week in Funafuti. Awareness raising relating to the project and water security issues were part of the week-long programme.
- Similarly in March 2022, the project provided support for the world water day celebrations. In addition to taking part in awareness raising on water issues, the project distributed visibility materials to students and the general public, such as the project's custom-made water bottles and tote bags.

## Challenges

- Border closures and restrictions as a result of the COVID-19 pandemic impacted the delivery and scope of the project in Tuvalu. This included the delayed installation and commissioning of the desalination unit and the provision of training to local engineers.
- Similarly, significant challenges have had to be overcome in the procurement and delivery of construction and plumbing materials, the water trucks and the ultraviolet water treatment systems required for the preschools. A number of activities were reduced in scope to factor in delay times. Such activities included the handwashing facilities at the preschools where the ultraviolet systems were removed, and the number of beneficiary schools was reduced from seven to two.
- The competing infrastructure projects in Tuvalu were a constraint to the workforce at PWD, where engineers are providing oversight for several projects simultaneously.
- Compliance to the SPC 'three-quote' procurement process is a challenge in Tuvalu as suppliers are limited in Tuvalu.

## Lessons learnt

- Applying a people-centred approach in the design, planning and implementation of the project is critical to achieve acceptable and culturally appropriate measures. In Tuvalu particular attention was directed towards communities, households and youth.
- One of the positive outcomes seen from the border closures was the extensive reliance on the national coordinators for facilitation and mobilisation of local resources and partners in the countries. This was seen as an upskilling to national coordinators.
- Increased shipping costs and potential shipment delays to be factored into the design and planning stages of new projects to mitigate possible implementation risks.
- Regular update meetings between the implementation agencies and partners have been instrumental towards a coordinated on-the-ground implementation and rectifying issues as they arise.
- Finance training is recommended for country officers to improve compliance with SPC financial regulations and standards.

## ANNEX 4 GCCA+ SUPA videos

Video	Link
<b>Overall achievements of GCCA+ SUPA</b>	
GCCA+ SUPA Learning from the past, preparing for the future	<a href="https://gccasupa.org/video-gcca-sup-a-learning-from-the-past-preparing-for-the-future/">https://gccasupa.org/video-gcca-sup-a-learning-from-the-past-preparing-for-the-future/</a>
Making a difference: Pacific Islands intensifying their efforts to adapt to climate change	<a href="#">Making a difference: Pacific Islands intensifying their efforts to adapt to climate change. - YouTube</a>
Prioritising the needs of Pacific Communities to adapt to climate change	<a href="#">Prioritising the needs of Pacific Communities to adapt to climate change. - YouTube</a>
<b>Subregional videos</b>	
Empowering youth to conserve marine ecosystems	<a href="https://gccasupa.org/video-empowering-youth-to-conserve-marine-ecosystems/">https://gccasupa.org/video-empowering-youth-to-conserve-marine-ecosystems/</a>
<b>National videos</b>	
Cook Islands trial experience – impacts analysis methodology reflection	<a href="https://gccasupa.org/video-cook-islands-trial-experience-impacts-analysis-ia-methodology-reflection/">https://gccasupa.org/video-cook-islands-trial-experience-impacts-analysis-ia-methodology-reflection/</a>
Connecting to strengthen climate change resilience in Cook Islands	<a href="https://gccasupa.org/video-connecting-to-strengthen-climate-change-resilience-in-cook-islands/">https://gccasupa.org/video-connecting-to-strengthen-climate-change-resilience-in-cook-islands/</a>
Adopting a people-centred approach: Outer island communities in FSM leading the way with water security	<a href="https://gccasupa.org/video-adopting-a-people-centred-approach-outer-island-communities-in-fsm-leading-the-way-with-water-security/">https://gccasupa.org/video-adopting-a-people-centred-approach-outer-island-communities-in-fsm-leading-the-way-with-water-security/</a>
Planning Fiji's climate resilient infrastructure: Retrofit or relocate	<a href="https://www.youtube.com/watch?v=1U-67mR3xhc">https://www.youtube.com/watch?v=1U-67mR3xhc</a>
Building community resilience – Soasosa watershed, Fiji	<a href="https://gccasupa.org/video-building-community-resilience-soasosa-watershed-fiji/">https://gccasupa.org/video-building-community-resilience-soasosa-watershed-fiji/</a>
Building community resilience: Planting vetiver grass, Fiji	<a href="https://gccasupa.org/video-building-community-resilience-planting-vetiver-grass/">https://gccasupa.org/video-building-community-resilience-planting-vetiver-grass/</a>
Growing our own food for healthy living in the Marshall Islands	<a href="#">Growing our own food for healthy living in the Marshall Islands - YouTube</a>

National videos	
Healthy lifestyles in a changing climate – Marshall Islands	<a href="#">Healthy lifestyles in a changing climate – Marshall Islands - YouTube</a>
Securing Nauru’s water lifeline for the most vulnerable people	<a href="https://gccasupa.org/video-securing-naurus-water-lifeline-for-the-most-vulnerable-people/">https://gccasupa.org/video-securing-naurus-water-lifeline-for-the-most-vulnerable-people/</a>
Maintaining desalinated water storage tanks in Nauru	<a href="#">Maintaining desalinated water storage tanks in Nauru - YouTube</a>
Sharing the same mindset – keeping the environment clean (Palau)	<a href="https://gccasupa.org/video-sharing-the-same-mindset-keeping-the-environment-clean/">https://gccasupa.org/video-sharing-the-same-mindset-keeping-the-environment-clean/</a>
Palau students address plastic pollution in the marine environment	<a href="https://youtu.be/QMcmleq0NkU">https://youtu.be/QMcmleq0NkU</a>
Palau trial experience – impacts analysis (IA) methodology reflection	<a href="https://gccasupa.org/institutionalization-of-the-impact-assessment-methodology-use-of-impact-indicators-in-palau/">https://gccasupa.org/institutionalization-of-the-impact-assessment-methodology-use-of-impact-indicators-in-palau/</a>
Scaling up coastal protection in Tonga: 2014–2023	<a href="https://gccasupa.org/video-scaling-up-coastal-protection-in-tonga-2014-2023/">https://gccasupa.org/video-scaling-up-coastal-protection-in-tonga-2014-2023/</a>







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