



Niue International Waters Ridge to Reef Project

Ministry of Natural Resources, Government of Niue

OFAGA HE PULOTU – Tumuakifonua ke he Uluulu Tuapa-Uhomotu Marine Learning Centre



To strengthen conservation and sustainable use of land, water and marine areas and their biodiversity by building on their cultural heritage values through integrated national and community actions



Final Report

2017 - 2022

Prepared by: **Crispina F Konelio**
Niue IW R2R Project Manager
April 2022



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Preface

Niue's international Waters Ridge to Reef (IWR2R) project is implementing a project funded by the Global Environment Fund (GEF) – International Waters (IW) to test the mainstreaming of the ridge to reef (R2R), climate resilient approaches to integrate Water, Land, and Forest & Coastal Management in the PICs through strategic planning, capacity building and piloted local actions to sustain livelihoods and preserve ecosystem services.

The Memorandum of Agreement between the Government of Niue (Ministry of Natural Resources) and SPC was signed in 2017. The key objective of the MOA is to further enhance the Sustainable Development Goals through Ridge to Reef Integrated Management in Niue and the South Pacific Islands, through capacity building opportunities and strengthening national mitigation efforts to protect Niue's underground water resources.

Niue was allocated \$200,000.00 for activities for up to 3 years, with additional support to be accessed from the regional project. At the outset, the Niue IWR R2R programme was to work alongside the Niue STAR Ridge to Reef programme. This proved challenging because the STAR R2R project commenced in April 2016 and has a larger budget compared to the IWR R2R component for Niue. Therefore, significant effort was invested in areas of collaboration and supporting national activities that link to the specific Niue IWR R2R programme.

The Niue IWR R2R programme sits under the Working Group/Technical Steering Committee for the Niue STAR R2R programme and works alongside the Departments of Agriculture, Forestry, Fisheries; Department of Environment under the Ministry of Natural Resources, Department of Utilities under the Ministry of Infrastructure, and Department of Health under the Ministry of Social Services.

Whilst the focus at the national level is on the STAR R2R project, the IW R2R programme will continue to work closely with all stakeholders to avoid duplication and overlaps.

The IW R2R project has been designed to engineer a paradigm shift in the management of marine and terrestrial protected areas (PAs) from a site-centric approach to a holistic "ridge to reef" approach, in the management and protection of natural resources. This approach will range across the entire island and the surrounding reefs, in recognition of the value and vulnerability of the groundwater aquifer which ecosystems are a single continuum and that impacts on the environment and ecosystem services are very difficult, if not impossible to contain in one location. All land-use decisions must consider the potential impacts on the entire environment and while some areas will be selected because of their unique or high value (ecological, social, cultural, economic) for special protection, the project introduces the concept of ecological connectivity on a landscape and seascape basis in Niue.



Dr Josie Tamate

Director General

Ministry of Natural Resources

Acronyms

FAO	Food and Agriculture Organization
GEF	Global Environmental Facility
GEM	Geoscience, Energy and Maritime Division
IW	International Waters
IWRM	Integrated Water Resource Management
M&E	Monitoring and Evaluation
MYCWP	Multi-Year Costed Work plan
R2R	Ridge to Reef
RPCU	Regional Programme Coordination Unit
SPC	The Pacific Community
UNDP	United Nations Development Programme
UNE	United Nations Environment
WFP	Work and Financial Plan

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Basic Project Data

Project Title	Testing the Integration of Water, Land, Forest, and Coastal Management to Preserve Ecosystem Services, Store Carbon, Improve Climate Resilience and Sustain Livelihoods in the Pacific Islands The implementation of the GEF Pacific International Waters Ridge to Reef Niue Project entitled "Strengthening capacity in water and environmental management in Niue".
Project Site/ Location	Alofi, Niue Island
Project Objectives	To test the mainstreaming of 'Ridge to Reef' (R2R), climate resilient approaches to integrated land, water, forest, and coastal management in the PICs through strategic planning, capacity building and GEF IW R2R Project local actions to sustain livelihoods and preserve ecosystem services.

Contract Information	Contract number	
	Original Project Duration	Inclusive dates 2016 - 2019
	Contract Extension (if applicable)	Inclusive dates of the extension 2020 - 2021
	Contracting Party	Department of Environment who signed the MOA/MOU Ministry of Natural Resource
	Contracting Party Signatory	Director General, Dr Josie Tamate signatory to the MOA/MOU
	Contract Amount (SPC-R2R)	USD 200,000
	Counterpart (Agency, Department)	USD 5,000
	Counterpart of other partners (e.g., development partners, NGOs, CSO, Academic, etc.)	USD 6,000

Executive Summary

Niue IW R2R Demonstration Project is part of the Regional IW R2R child project of the GEF Pacific R2R Program. Along with the Niue STAR R2R project, the Niue IW R2R project builds on nascent national processes from the previous GEF IWRM project that foster sustainability and resilience for each island through, reforms in policy, institution and coordination; building the capacity of local institutions to integrate land, water and coastal management through on-site demonstrations; establishing evidence based-approaches to ICM planning; improved consolidation of results monitoring and information and data required to inform cross-sector R2R planning approaches.

Niue is dependent on its natural environment and ecosystem services for its quality of life and its economic viability. The natural environment, in all its forms, is a valuable economic asset as it provides an attraction for visitors and tourists who are the mainstay of the Niuean community. The environment also provides food and other necessities for residents of Niue.

The project focuses its attention on harnessing the support of traditional community leadership and governance structures to improve the relevance of investment in ICM, including MPAs from community to cabinet. It also strengthens the conservation and sustainable use of land, water and marine areas and their biodiversity by building on their cultural heritage values through integrated national and community actions. Furthermore, it consolidates and expands marine and terrestrial protected areas; promotes sustainable management practices; builds a legal and institutional framework to support the conservation and sustainable use of natural resources.

The purpose of the Regional IW R2R project is to test the mainstreaming of the ridge to reef (R2R), climate-resilient approaches to integrated land, water, forest, and coastal management in the PICs through strategic planning, and capacity building and piloted local actions to sustain livelihoods and preserve ecosystem services.

Generally, the Niue IW R2R demonstration project focuses on delivering 200-ha catchment protection measures through ICM planning as its stress reduction target. Key to delivering on this target is the completion and implementation of Niue's Water Use Efficiency (WUE) Plan which includes cost recovery measures and more importantly village ICM plans.

The WUE plan has been completed and awaiting endorsement of the cabinet. However, village ICM plans were not completed due to the delayed process of considering and approving ToRs for consultancies. The significant delay impacted the progress of implementation, particularly the hiring of consultants and mobilising resources for research, fieldwork, and stakeholder consultations.

If completed and implemented, the WUE Plan and Village ICM Plans would deliver on Niue's stress reduction target. However, given the progress of project work to date, it only contributed to approximately 160ha of protection measures. In turn, the Niue IW R2R project contributed to the achievement of the Regional IW R2R project stress reduction target of 15,206 ha catchment protection measures. The actual end of the Regional IW R2R project stress reduction target exceeds 26,000 ha of protection measures.

Introduction

Background

Niue is a small, elevated outcrop approximately 2,400km northeast of New Zealand with a fringing coral reef. It consists of two terraces with the upper terrace forming the bulk of the island. It is believed to be the largest coral atoll in the world, with thirteen (13) villages spread around the lower coastal terrace. The population is about 1,700 persons and the economy suffers from the typical Pacific Island problems of geographic isolation, few resources, and a small population.



The Niue International Waters Ridge to Reef demonstration project will enhance Niue's capacity to effectively create and manage protected areas for biodiversity conservation, sustainable use of natural resources, and safeguarding of ecosystem services. This project has been designed to engineer a paradigm shift in the management of terrestrial, coastal, and marine protected sites from a site-centric approach to a holistic 'ridge to reef' comprehensive approach. Through this approach, activities in the immediate production landscapes adjacent to marine and terrestrial protected areas will be managed to reduce threats to biodiversity and ecosystem services stemming from key production activities (e.g., tourism and agriculture).

This project will build upon and complement the efforts of the Niue Government to conserve and sustain the island's biodiversity and ecosystem services through integrated land-water-coastal management while contributing to the implementation of the Pacific Island Multi-focal area R2R approaches. It builds upon the government efforts and with the collaboration of communities and private landowners

The project provides resources and technical support to the government and other stakeholders including local communities to create an enabling environment for biodiversity protection and management through integrated environmental planning over the terrestrial and coastal environments, implementing specific protection activities ecosystem and species level, reducing anthropogenic pressure on land and coastal resources, catalyzing sustainable agricultural, water, land use, pollution reduction and habitat conservation. The application of integrated environmental management and awareness communications will catalyze the uptake of ecosystem protection and adaptive resource management methods resulting in a significant improvement of management effectiveness in terrestrial and marine protected areas and governance in managing ecosystem services in Niue.

Moreover, the project also introduces the concept of connectivity between landscape and seascape in Niue. The terrestrial protected areas will include a landscape that links strictly protected community areas (*tapu*) to each other to enhance their integrity and form a functional ecological corridor between them. The creation of a Marine Protected Area at Beveridge Reef also satisfies the integrated and holistic approach promoted by the Project by recognizing the link that is thought to exist between the Reef and mainland Niue through which the former serves as a source of recruitment for clams and other marine species that make up Niue's coral reefs.

Given the close interconnection between land, water and coastal systems in Small Island Developing States (SIDS), the integration of freshwater watershed management with coastal area management is considered essential to foster effective cross-sectoral coordination in the planning and management has been termed, Ridge to Reef to emphasize the interconnections between the natural and social systems from the mountain "ridges" of volcanic islands, through coastal watersheds and habitats, and across coastal lagoons to the fringing 'reef' environments associated with most Pacific SIDS. Inherent in the approach is the philosophy of cross-sectoral coordination in the planning and management of freshwater use, sanitation, wastewater treatment and pollution control, sustainable land use and forestry practices, balancing coastal livelihoods and biodiversity conservation, hazard risk reduction, and climate variability and change.

To achieve the objective of the Niue IW R2R Project is to enhance and strengthen the long-term institutional capacity of Niue and prioritise biodiversity and ecosystem conservation and sustainable use as a fundamental part of the everyday resource utilisation, national development, and resource management planning.

Situational Analysis, Project Issues & Needs

Niue IW R2R demonstration of the Regional IW R2R child project was developed to contribute more broadly to the goals and scope of the UNDP-GEF Pacific Ridge to Reef Programme, which primarily is about “Pacific Islands Ridge to Reef National priorities – Integrated Water, Land, Forest, and Coastal Management to preserve Biodiversity, Ecosystem Services, Store Carbon, Improve Climate Resilience and Sustain Livelihoods. For Niue, R2R is about a whole country’s approach to addressing its initial priority environmental threats of catchment protection, municipal waste pollution and pollution reduction in aquifers. Due to project challenges, the project only focused on delivering a stress reduction target of 200-ha through ICM planning and dropped the waste and aquifer pollution.

Generally, Niue has no surface runoff in the form of rivers, streams, and lakes. As such, water for residential and commercial consumption can only be sourced from the underground water lens, supplemented by the collection of rainwater at the household level. The water lens is recharged through rainfall which permeates through the predominantly limestone soil profile to recharge the groundwater lens. This means that any discharge whether through human water, agriculture or industry has great potential to contaminate the water lens if proper measures are not taken to improve the management of discharges from land-based activities.

The water quality of the lens is potable, and it is piped untreated to all villages. The Government meets all costs for pumping and distribution of water. Attempts to introduce a user-pay system have up till now been declined by the government. Approximately 85% of the water pumped from the groundwater lens is used for domestic use, 10% for agricultural use and 5% for commercial and industrial usage. Water pumped from the reservoir to the household’s storage is not treated, with households deciding themselves whether to treat or boil the water.

The groundwater is prone to contamination due to the very porous coral aquifer. Septic tanks are the most common way of treatment for all domestic and tourism wastewater on the island. The exceptions are piggeries and agricultural wastewater. Currently, there is no secondary treatment for sludge from emptied septic tanks nor there is any specific waste disposal procedure though there are plans for the main dump to be constructed at the southern end of the island. A study carried out by SOPAC on coastal water quality in 2003, originally initiated due to fish poisoning outbreaks and fish deaths, confirmed high nitrate and phosphate concentrations. This is believed to have been caused by inadequate wastewater treatment primarily from septic tanks draining into the groundwater regime. The survey highlights the vulnerability of the island’s water resources to any land activities and the close link between land and catchment activities and coastal zone impacts.

The above issues have begun to be addressed through the cross-sectoral planning and management initiatives of the GEF Pacific IWRM Project and currently through the IWR2R project. Needs still exist and have been identified within the Ridge to Reef context which include building ecosystem and climate change resilience through national actions to strengthen the enabling environment and monitoring capacity for water systems; enhancing coastal and groundwater protection through targeted reductions in land-based contaminants; and increasing information management and community awareness in support of national Integrated Coastal Management (ICM) planning. This requires coordinated efforts by the government in which the IWR2R project plays a part in identifying and addressing the needs.

Project Scope, Components & Anticipated Results

Using the table below, enumerate the key components and anticipated outcomes.

Key Components	Expected Outputs	Anticipated Outcomes
1. Building ecosystem and climate change resilience via national actions to strengthen the enabling environment and monitoring capacity for water systems in Niue	<p>1.1 WUE Plan (including cost recovery mechanism) developed and endorsed by Cabinet.</p> <p>1.2 Gap analysis for cross-department database prepared.</p> <p>Options report for a cross-department database for environmental analysis and reporting prepared.</p> <p>1.3 Public information materials for WUE developed and distributed (support from RPCU).</p> <p>Prepare community awareness programs.</p>	<p>1.1.1 Nationally endorsed planning and policy framework for water use efficiency including a cost-recovery and system installations strategy.</p> <p>1.2.1 Ecological health status of natural water systems is characterized to strengthen and support water resource management.</p> <p>1.3.1 Enhanced culture of water resource protection in Niue stimulated through targeted community awareness and training.</p>
2. Coastal and groundwater protection enhanced via targeted reductions in land-based contaminants	<p>2.1 Waste Management Strategy & Action Plan reviewed and updated.</p> <p>2.2 Volume of illegal waste dumping of domestic and commercial solid waste contribute to coastal waters pollution.</p>	<p>2.1.1 Reduced environmental stressors on marine and terrestrial ecosystems via piloting of waste collection systems.</p> <p>2.2.1 Environmental and public health safeguarded via targeted reductions in nutrient and pathogen contamination of groundwater and coastal areas</p>
3. Information management and community awareness increased in support of national Integrated Coastal Management	<p>3.1 Community awareness program developed.</p> <p>Communication and awareness materials produced.</p> <p>3.2 Existing and pipelined village level planning reviewed and recommendations for R2R approach made (Local Consultants).</p> <p>3.3 Participatory ecosystem/habitat monitoring program developed.</p>	<p>3.1.1 Improved access to information and understanding of ICM in targeted communities.</p> <p>3.2.1 National uptake of ICM planning and investment strengthened through the development of village-level ICM plans.</p> <p>3.3.1 National capacity for environmental assessment and water quality analysis increased to identify threats from land-based contaminants to coastal waters.</p>

Project Organization and Management

The Ministry of Natural Resources (MNR) is committed to the project goal of ridge to reef, climate resilient approaches to integrated land, water forest and coastal management in the PICs through strategic planning, capacity building and GEF IW National R2R Projected local actions to sustain livelihoods and preserve ecosystems services and has demonstrated the capacity need for the implementation of the GEF IW National R2R, in accordance with UNDP, GEF, and SPC requirements for management.

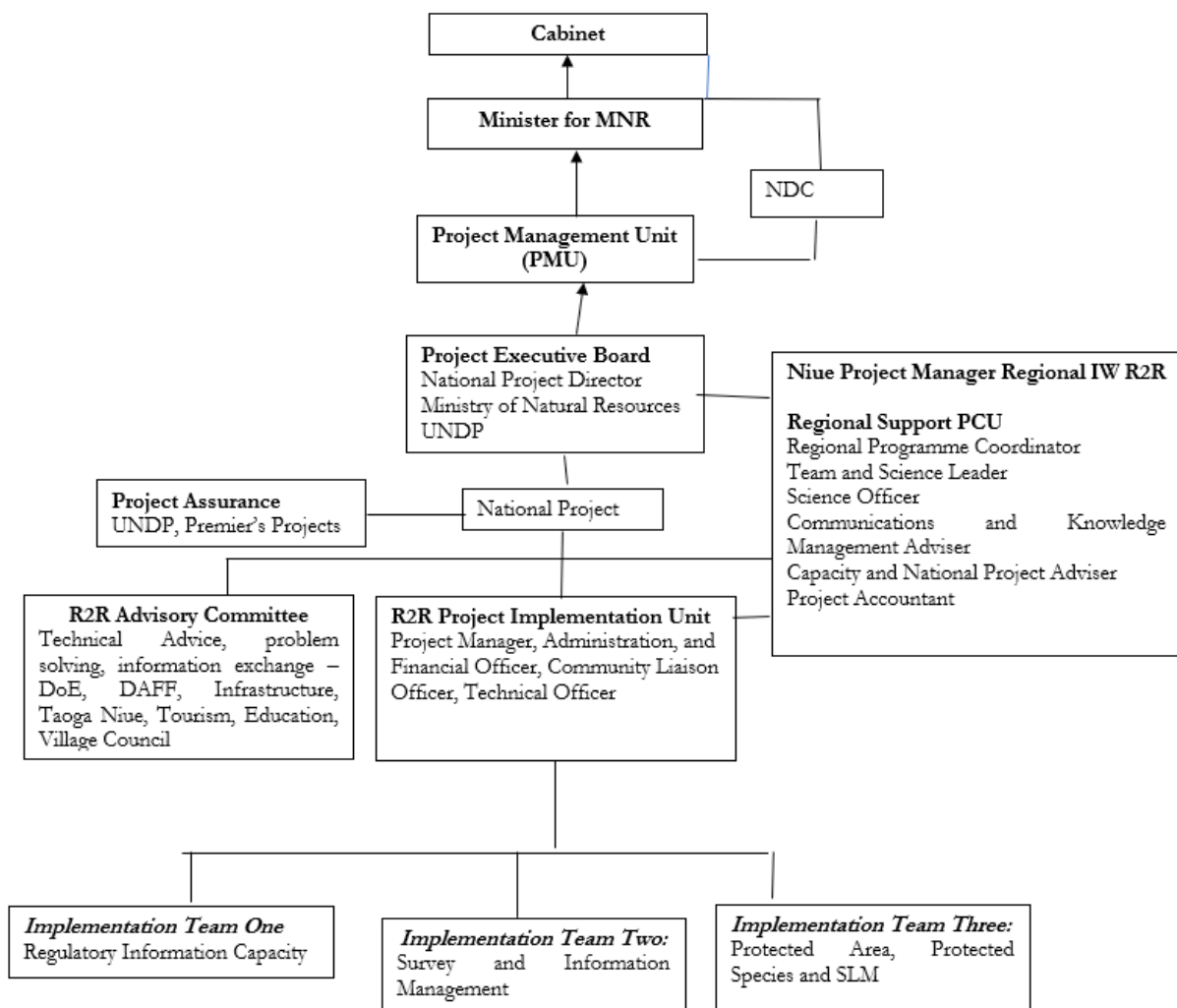
The Department of Environment was the lead government agency for the development of the National Biodiversity Strategic Action Plan 2015. It also ensures that waste and pollution management are carried out and it also deals with issues of biosafety and invasive species. As the key department of the Ministry of Natural Resources which will serve as executing agency which will involve both outcomes and outputs in the project.

Regional R2R programme as context for the national Niue R2R project. At the beginning and overview and background of the Pacific Regional R2R programme as the context for the national R2R Projects. It was noted that R2R programme provides an overarching programme framework but that the national R2R projects prioritised by each pacific island country is autonomous. It was commented that there is a component under the overarching R2R programme, executed at the regional level by SOPAC of the Secretariat Pacific Community supporting activities under the GEF International Waters (IW) Focal Area as a follow up from the previous Integrated Water Resource Management (IWRM) regional GEF project. It was also further explained that the project activities in Niue under the regional component of the R2R programme are demonstration projects as a follow on to IWRM enabling activities, which developed IWRM plans in most pacific island countries. It also emphasised the importance of establishing synergies between IWRM demonstration projects and the national R2R project activities, to the extent possible.

To strengthen the synergies between the Niue IW & STAR R2R projects and raised the following key issues:

- Technical experts available can provide technical backstopping to each project.
- The importance of ensuring no duplication and competition for the same human resources was highlighted.
- Synergies will arise from the fact that the IWRM demonstration sites will more than likely be in or around the designated conservation areas under the national STAR R2R project. The conservation areas management plans to be developed under the Niue R2R STAR project, are expected to mainstream in village development plans.
- Coordination and synergies can be strengthened through streamlining implementation arrangements and project governance structure. It is helpful to consider a joint steering committee or project executive board that provides strategic guidance and governance for both projects.

R2R Project Organization and Governance Structure



The Project Board is formed by the National GEF STAR R2R Project and will also act as the Steering Committee for the National IW R2R Project for which the Project Implementation Unit and R2R Project Manager and the team will provide secretarial services. The PEB is comprised of the following;

1. Co-Chair of the Board: Minister for MNR
2. Co-Chair UNDP: UN Coordinating Officer
3. Secretary to Government
4. Project Director – DG MNR
5. DG MoSS – representing the VC's
6. Financial Secretary
7. Director for PCMU

R2R Technical and Advisory Committee comprise of the following;

1. Project Director – DG of MNR
2. STAR R2R Project Implementing Unit Team
3. DG of MoSS
4. DG of Mol
5. Financial Accountant or Financial Secretary
6. Director of DAFF
7. Director of MET
8. Director of Education
9. Director of Taoga Niue
10. Director of Environment
11. JLS GIS Specialist
12. Project Manager NOW
13. IW R2R Project Manager
14. Niue Tourism
15. Chamber of Commerce
16. PCMU

In the unique situation in Niue, coordination with other relevant projects is essential and the project will be well-coordinated with ongoing GEF financial projects. The Director-General of MNR oversight all projects and activities under DAFF, DOE and MET that capture all GEF, FAO, FFA, SPC and similar projects and donor inputs. DG MNR is also the GEF Operational Focal Point.

The project builds on and benefits from close collaboration with the R2R STAR Project. The goal of the Regional Programme as in the conceptual framework outlined in the Program Framework Document (PFD) of the programmatic approach is to “maintain and enhance Pacific Islands Countries ecosystem goods and services (provisioning, regulating, supporting and cultural) through integrated approaches to land, water, forest, biodiversity, and coastal resource management that contribute to poverty reduction, sustainable livelihoods, and climate resilience”.

The Project development also benefited from several completed and existing initiatives /processes related to biodiversity conservation and adaptive management and lesson learned that has emerged from IWRM and PACC Projects and will collaborate in addressing the impacts of waste on freshwater lenses.

The R2R Project Implementation Unit (PIU) was established in 2016 and it is to be set up with the Ministry of Natural Resources and to be led by the R2R Project Manager who will provide the day-to-day coordination and administration of the project. The R2R PM will be supported by the Administration and Finance Officer. The PIU will also have a Community Liaison Officer, Communication Officer, and Technical Officer. The PIU, while assuming responsibility for the upstream activities, will provide advice, support, and coordination for all project activities.

The R2R Advisory Committee was established thereafter which will combine the functions of a consultative forum as well as serve as a source of technical advice to the R2R Project Manager and to the Project Executive Board. The R2R Advisory Committee consists of representatives of key implementing partners, stakeholders, and beneficiaries as well as some individuals and organisations selected in recognition of their expertise or interest in the Project. IW R2R Project Manager was recruited in early 2017 and R2R Project Director agreed to include the IW R2R PM in the R2R2 Advisory Committee rather than establishing a separate committee.

R2R Advisory Committee consists of representatives of key implementing partners, stakeholders, and beneficiaries as well as some individuals and organisations selected in recognition of their expertise or interest in the project. The Director-General of MNR is the Project Director and the Chairperson of the R2R Advisory Committee.

National R2R STAR Project Manager submits to Cabinet for approval of representatives for the Project Executive Board and representatives for the R2R Advisory Committee. National R2R STAR Project Manager and its PIU team facilitate both meetings quarterly. At these meetings, the IW R2R Project Manager presents updates on the National IW R2R Project.

Project Stakeholders and Engagement

Some stakeholders have been associated with both projects National STAR and National IW R2R from very early on and from the core of implementation partners and their interest has been confirmed through various consultations and meetings during project formulation. A wide range of stakeholders will be involved in the implementation of the project. These include relevant departments upstream as well as Village Councils and local communities at grassroots levels. Relevant NGOs and the private sector are also involved.

In its pursuit of the R2R approach, the project follows a cross-sectoral and participatory approach, requiring the involvement of different stakeholders in implementation at national and local levels.

R2R National Project facilitates two village community consultations and IW R2R Project with key government agencies jointly participate in the village consultations and is very beneficial for everyone. Especially the community that shares knowledge on culture and Taoga, climate, marine and conservation practices.

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In every effort to mainstream gender and equity issues in demonstration planning, execution and monitoring and evaluation R2R workshops and consultation are held in the 14 villages to ensure women, youth are empowered to voice their issues and the Project to address.

In some communities or villages only, men attended the consultations and their feedback as to why they turned out to be only men is simply because the ladies must prepare food for the consultation since R2R provide funds for the event.

R2R STAR and IW R2R Project both work to update the stakeholder analysis and engagement action plan.

Project Engagement Strategies & Approaches for Improving Stakeholder Participation

The beneficial engagement strategies developed from this project link directly to the strong stakeholder relationships built by the Pacific IWRM and adopting the Community to Cabinet approach. Functional participation by the community and its leaders at the local project level and National Policy level has been developed and are operational. The focus on extending the diagnostic analysis to the coast and its characterization relies implicitly on local stakeholders' knowledge. It is imperative that the engagement strategies through regular follow up meetings and training by government projects continued and strengthened into the future and avoid setting up new ones.

The NGO community do have a significant stakeholder role in promoting awareness of water, land and coastal management and use issues and concerns, especially in demonstration project areas and in presenting the linkages both to social development and to sustainable, ecosystem-based management. NGOs have already been actively involved in partnering with National GEF Pacific IWRM demonstrations providing additional resources to local communities and facilitating the development of community leadership. There are also certain champion individuals or groups observed active in community and stakeholder empowerment, which are useful to support future R2R investments and ICM planning.

Mainstreaming Gender & Equity in Project Planning, Execution, Monitoring & Evaluation

Niue society has seen important socioeconomic changes in the past few decades and significant progress in terms of gender equality in relation to education, health, employment, and decision making. Women are always seen to play significant roles, side by side with men, in the development and wellbeing of their families and communities.

A national action plan was developed and titled the Niue National Policy on Gender Equality and Plan of Action, 2014 – 2018. The first National Plan of Action for Women 2005 – 2008 was endorsed in 2005. The Government of Niue takes pride in providing a framework through this policy to guide the process of developing laws, policies, procedures, and practices that will serve to ensure equal rights opportunities and benefits for women and men in the society, the workplace, the community, and the family.

Although gender equality is not mentioned among the principles and priorities of the Niue National Strategic Plan, it is widely acknowledged at the regional and internal level that gender equality is a critical condition to achieving sustainable development, wellbeing, and peace.

Even though women are playing a greater role in social and professional arenas today, there are still recurrent gender inequalities that need to be addressed in some areas. However persistent stereotypes about the relationships and the role of women and men remain an important obstacle to achieving gender equality in Niue.

And to mainstream gender and equity issues in demonstration planning, execution, and monitoring and evaluation in this sector of international waters ridge to the reef that there is some balancing in the participants during the steering working committee meetings and community consultations.

STAKEHOLDER	ROLE AND/OR RELATIONSHIP WITH THE PROJECT
PRIMARY STAKEHOLDERS	
Department of Environment (DoE)	The Environment Department was the lead government department for the development of the NBSAP. It also ensures that waste and pollution management is carried out. The department also deals with issues of biosafety and invasive species. Environment Department is one of the two lead agencies for the implementation of both IW and STAR R2R Projects in the country.
Department of Agriculture, Forestry and Fisheries (DAFF)	The Department is primarily responsible for ensuring increasing agricultural productivity through agronomic research and extension as well as by supporting livestock rearing activities. Their role also includes promoting sustainable land management and forestry. It works on marine areas and is largely focused on sustainable fisheries, promotion of fish aggregating devices and marine protected areas (MPAs). This department is seen as one of the lead agencies for the implementation of both projects.
Ministry of Social Services (MoSS)	<ol style="list-style-type: none"> 1. Community Affairs is housed under the Department of Justice, and they work on local development committees. Community Affairs support the development of sustainable development plans at the village level. 2. Village Councils, there are 14 village councils that are locally elected bodies with a three-year term. They are responsible for developing local development plans and their implementation. They also are legally empowered to make local by-laws. 3. Taoga Niue Department is to ensure that traditional knowledge, cultural traditions, and special sites are identified and respected. The project works closely with Taoga Niue to ensure conservation activities complement cultural heritage sites management, particularly around traditional village areas and to educate and inform on traditional approaches to natural resources. 4. Education Department will lead in ensuring that the school curriculum in both primary and secondary schools includes the modules on the ridge to reef concept for conservation and sustainable use to raise awareness and to build environmental management as one option for the future career development of Niue students. 5. Department of Justice, Lands and Survey, plays a critical role in resolving land tenure, GIS capabilities and data mapping, survey, GPS database. This is important in creating protected areas and management strategies. The department also helps to develop an Environmental Information Management System.
Ministry of Infrastructure (Mol)	Department of Utilities promotes integrated water resource management. Their role is to ensure water pollution is minimized and strategies are put in place and relevant pollution reduction technologies are demonstrated to reduce pollution to underground water and marine areas (coastal).
Niue Tourism Authority (NTA)	Niue Tourism develops a Tourism Strategy which aims to increase sustainability. The authority recognizes that the Niue environment is important and there committed to its protection.
SECONDARY STAKEHOLDERS	
Chamber of Commerce and Private Sector	The Niue Private Sector is somewhat modest in size, but it is very important in the island's economy. The main component of the private sector includes the Tourism industry, agriculture, and fisheries sector. The project can help the private sector in its efforts to work within the constraints required to maintain the quality of the environment on a sustainable basis.
NUANGO (Niue Island United Association of Non- government Organizations)	Niue has a number of NGOs, and all are affiliated with NUANGO. Some of the known NGOs are the Niue Council of Women, Niue Youth Council, Sports Codes etc.
University of the South Pacific – Niue Campus	The University of the South Pacific operates a small campus in Niue primarily as a Distance Learning Centre.

Project Results and Achievements

Science, evidence, or result-based approaches are considered best practices, which is also a fundamental principle of the ridge to reef concept. In adopting the Paris Declaration on Aid Effectiveness in 2005, national government Ministers responsible for the development of both developed and developing countries joined with Heads of multilateral and bilateral development institutions in committing to “work together in a participatory approach to strengthen country capacities and demand for result-based management.”

A. Building ecosystem and climate change resilience via national actions to strengthen the enabling environment and monitoring capacity for water systems in Niue

Developing a policy framework for water use efficiency including a cost recovery and system installations strategy will benefit Niue, particularly in the effective conservation and sustainable use of its limited water resource. This task of preparing the Water Use Efficiency Plan was delayed however, a local consultant was engaged in August 2021, and completed the policy in October 2021. The policy is expected to be implemented following cabinet endorsement.

Several achievements and considerations below support building ecosystem and climate change resilience, which include strengthening efforts to manage water systems in the country: -

1. Develop an enhanced National Water Quality and Marine Health Database that can be linked with the Regional EIMs and National R2R STAR project. The role and function of the centralised database will house all relevant and water-related datasets cross-sectorally that can be used by researchers and the government to support analysis and modelling work to generate useful results and outputs, which in turn inform policy discussion and decisions relative to the ecological health of natural water systems in the country.

R2R STAR Project engaged an International Consultant to develop the Environmental Information Management System in 2020. The contents of the report reflect what is required in the IW R2R work plan.

2. IW R2R Project financially support and enhanced ongoing National Water Quality Monitoring that is implemented by both the Health Department and the Water Division by procuring an Incubator to ensure accurately timely reading of water samplings collected from the water bores and water reservoirs.



(New Incubator for Health Department and Health Team Rueben Siataga, Andy Manu, Fatima Talagi and Ashley Pihigia, demonstrating water quality testing at Paluki Bore Site.)

- Enhanced culture of water resource protection in Niue stimulated through targeted community awareness and training is the development of the Community Engagement and Communication Strategy the strategy was developed by the R2R STAR Project; the contents of the strategy both capture the requirements of the two projects.
- World Water Day is celebrated annually and IW R2R organised several activities such as poster competitions from students at both schools, email quizzes with government departments. A video script was not able to produce due to time constraints from those involved.



(One of the winners during the Poster competition Miss Anneliese Pavihi Sioneholo)

B. Coastal and groundwater protection enhanced via targeted reductions in land-based contaminants

Reduced environmental stressors on marine and terrestrial ecosystems via piloting of waste collection systems by reducing the volume of illegal dumping of domestic and commercial solid waste, wastewater and septic sludge reduced by 30% through a developed Transfer Station. IW R2R Project was not able to implement it, however, Project Coordinating Management Unit with funds from the Australian Government a Niue Resource Recycling Centre was constructed and is expected to complete in 2022.

Environmental and public health safeguarded via a targeted reduction in nutrient and pathogen contamination of groundwater and coastal areas, IW R2R Project



Contract No: **2019 – ACSENIU1507**

Sewage Vacuum Tanker Effluent (SVTE): Centralised Management of SVTE



DOCUMENT CONTROL

Client	Government of Niue	Job #	191127/GoN
Project Title	DEVELOPMENT OF OPTIONS FOR CENTRALISED TREATMENT OF HOUSEHOLD WASTEWATERS IN NIUE		
Document Title	Sewage Vacuum Tanker Effluent (SVTE): Centralised Management of SVTE		
Code	Status	Author(s)	Reviewed By
ORGoN	Final	A.J.Dakera	Issue Date
			27 November 2019

Annex 2:

Development of Options for Centralised Treatment of Household Wastewater in Niue.

This report presents the conceptual design option for the management of wastewater effluent, considering constraints and attributes specific to Niue conditions. The report also identifies key risks associated with management and mismanagement of wastewater under Niue conditions. The risks, constraints and attributes identified are consistent with the findings of previous technical studies and reports and the consequent government policies, particularly the need for long-term, medium-term, and immediate protection of groundwater and coastal waters.

The report further recommended more detailed discussion and analysis before a decision can be made on the preferred option. And when funding is made available then the objective will be to find the best-fit, sustainable, and effective management system.

C. Information management and community awareness increased in support of national integrated coastal management

- Improved access to information and understanding of ICM in target communities
- National uptake of ICM planning and investment strengthened through the development of village-level ICM plans
- National capacity for environmental assessment and water quality analysis increased to identify threats from land-based contaminants to coastal waters.

The IW R2R project contributed to targeted reductions in land-based contaminants through direct participation and provide inputs in several training and related workshops. In most cases, the project used the opportunity of using project resources to raise the levels of awareness and understanding expecting to influence behavioural change in targeted reductions of contaminants in land-based activities. The project actively contributed to the preparation of awareness material for the Western Side Marine Learning Centre located (MURAL) at Tuapa Village.

Generally, the Niue IW R2R demonstration project focuses on delivering 200 ha catchment protection measures through ICM planning as its stress reduction target. Key to delivering on this target is the completion and implementation of the Water Use Efficiency (WUE) Plan which includes cost recovery measures and more importantly village ICM plans.

If completed and implemented, the WUE Plan and Village ICM Plans would achieve delivered Niue's stress reduction target. However, the progress of project work to date contributed to approximately 160ha of protection measures. The results can best be presented following the results logic.

Component/ Outcomes/ Outputs	Indicate the appropriate name of the component, the desired outputs, and activities	Indicate the Status of implementation (choose from the following:
		- Completed or not completed indicate the reason
Component 1	Building ecosystem and climate change resilience via national actions to strengthen the enabling environment and monitoring capacity for water systems in Niue.	
Outcome 1.1	Nationally endorsed planning and policy framework for water use efficiency including a cost recovery and system installations strategy.	Moderately achieved (a final draft yet to be endorsed by cabinet)
Output 1.1.1	Develop Water Use Efficiency, Cost Recovery, and Implementation Plan, and endorsed by Cabinet	A local consultant was engaged to develop the plan.
		The plan is expected to be finalized in November 2021.
		Draft plan circulated and reviewed with contributions from Mol and other stakeholders
		Final WUE Plan (assessment & associated cost recovery options) submitted to cabinet for endorsement.

Component/ Outcomes/ Outputs	Indicate the appropriate name of the component, the desired outputs, and activities	Indicate the Status of implementation (choose from the following):
		- Completed or not completed indicate the reason
Outcome 1.2	Ecological health status of natural water systems is characterized to strengthen and support water resource management.	Achieved
Output 1.2.1	Gap analysis for cross-department database prepared	The National R2R Project led this activity by engaging the International Consultant to develop the EIM which includes the Gap analysis of Government Department Databases.
		An excel type database is prepared to assess historical and current database systems by relevant departments and/or agencies (DoE, DoU, DoH).
		Options paper prepared to outline the potential for the cross-department database.
		Review of the final database and options paper by DoE and other stakeholders.
Output 1.2.2	Options report for a cross-department for environmental analysis and reporting prepared	Refer to output 1.2.1.
Outcome 1.3	Enhance the culture of water resource protection in Niue stimulated through target community awareness and training.	Achieved
Output 1.3.1	Public information materials on WUE were developed and distributed to the community	This activity is aligned with output 1.1.
Output 1.3.2	Community awareness program – see 3.1 below	Details in 3.1. below
Component 2	Coastal and groundwater protection enhanced via targeted reductions in land-based contaminants	
Outcome 2.1	Reduced environmental stressors on marine and terrestrial ecosystems via piloting of waste collecting system	Not achieved
Output 2.1.1	Waste Management Strategy & Action Plan reviewed and updated	This output was planned to be implemented together with the Waste Management Project under the Project Management Coordination Unit (PMCU), hence cannot be completed at this stage.
Outcome 2.2	Environmental and public health safeguarded via targeted reductions in nutrient and pathogen contamination of groundwater and coastal areas.	Moderately achieved
Output 2.2.1	The volume of illegal waste dumping of domestic and commercial waste contributes to coastal waters pollution.	Procurement of an incubator for the Health Department in replacement of faulty equipment that assists in an accurate reading during water quality monitoring of Niue groundwater supply.

Component/ Outcomes/ Outputs	Indicate the appropriate name of the component, the desired outputs, and activities	Indicate the Status of implementation (choose from the following):
		- Completed or not completed indicate the reason
Output 2.2.2	Project Proposal for replication of septic system upgrades (as conducted through the EU/GIZ Project).	Co-financing of machinery – forklift for septic tank constructions under the EU/GIZ Project, for Alofi Town households.
		A short video was developed by the Project Management Coordinating Unity on the septic system upgrading in Alofi households.
		There were technical issues with the video and the producer. Still waiting for the video clip which was re-taken.
Component 3	Information management and community awareness increased in support of national integrated coastal management.	
Outcome 3.1	Improved access to information and understanding of ICM in target communities	Achieved
Output 3.1.1	Community Awareness Program developed	IW R2R procured a range of materials
		e.g., 2 x mural in support of the Tulpa Community Marine Learning Centre, and information and knowledge products shared to be housed in the Centre.
		Completed gap analysis that identified where the community awareness program will add value.
		Communication/ awareness/ knowledge materials produced, with support from RPCU, SPC Fisheries, Aquaculture and Ecosystems Division, and local NGOs.
		IW R2R carried out monitoring impacts of engagement and possible behavioral changes and understanding of ICM amongst targeted communities and stakeholders.
		Niue IWR2R webpage developed for information and knowledge sharing. Refer Annex 7.
Output 3.1.2	Participation and contributions commemorating national and international events like water day, ocean day, etc.	Project Manager carried out numerous school talks and contributions to public events like commemorating water days.
Outcome 3.2	National uptake of ICM planning and investment strengthened through the development of village-level ICM plans	Not achieved
Output 3.2.1	Village Level Integrated Coastal Management	IW R2R project prepared the consultancy ToR, and resources were made available.
		However, the project was unable to implement due to the fact the project is already given time to complete.
		Also, there were issues internally it took longer for the government to approve the implementation of this activity.
Output 3.2.2	Community engagement strategy for ICM planning implemented	No consultants were secured and therefore unable to complete this activity within the project life.

Component/ Outcomes/ Outputs	Indicate the appropriate name of the component, the desired outputs, and activities	Indicate the Status of implementation (choose from the following:
		- Completed or not completed indicate the reason
Outcome 3.3	National capacity for environmental assessment and water quality analysis increased to identify threats from land-based contaminants to coastal waters.	Not achieved.
Output3.3.1	Participatory ecosystem and habitat monitoring program developed	Unable to secure a consultant to develop the monitoring program that is based on existing data relating to coastal fisheries, habitats, water quality, natural resources including metadata.
Output 3.3.2	Participatory ecosystem and habitat monitoring program operational	There is no program developed

Financial Summary

SPC-R2R Financial Contribution

Amount	Total Amount Spent	Utilization Rate ¹ (Percentage)
200,000 USD	171,775 USD	100 %

Materialized Co-financing

Status of the contributions of the Partner Organization/s (e.g., Agency, department, etc.), and other stakeholders. Both cash and monetized in-kind contributions should be reported. Kindly refer to the GEF policy on co-financing for further guidance. In principle, all non-GEF financial resources that are used for producing outputs of this project could be reported as co-financing.

Name of Co-financer	Type of Co-financing ²	Amount ³ (USD)
Department of Environment	In-Kind	5,000
Department of Health – Water Quality Monitoring	In-Kind	1,000
Department of Utilities	In-Kind	5,000

² Amount spent divided by amount budgeted/planned multiply by 100.

³ Grant or In-kind

⁴ Total cash and monetized in-kind contributions.

Implementation Progress Ratings

A brief and concise assessment of the results and achievements of the project from the perspective of the recipient. The assessment should endeavour to respond to the following assessment areas:

- 1. Inputs:** To what extent have the planned inputs been supplied? Based on your financial plan, provide an assessment of whether the planned inputs (such as technical and/or policy advice, and financial contributions) as indicated in the approved project document have been timely and sufficiently delivered. Provide 2-3 sentences describing the inputs delivery.

Planned inputs were provided and funds delivered but the host agency or participating stakeholders supporting the timely implementation of project activities is lacking and can be improved. There were several other projects implemented in parallel with IWR2R, which in a way provided leveraging opportunities to share experiences and lessons. A cabinet decision is needed before any work can be done, and the process can be time consuming and lengthy. The delay relates to COVID-19 but also to do with disagreement on ToRs and associated fees, which correspond to approved work plans, and this issue continues until the final stage of the project implementation.

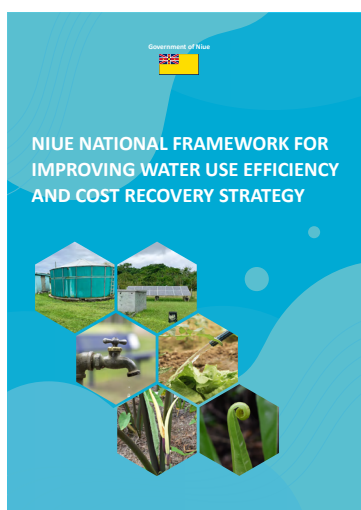
Generally, the Multi-Year-Costed workplan was reviewed in 2020 to allow changes to ensure the activities still contribute to the achievement of the target of stress reduction e.g., ICM planning. The focus was to update the MYCWP can be practically delivered within the timeline and assuring in progress reporting that the bulk of the work is already underway and close to completion.

- 2. Outputs:** To what extent have the planned outputs been produced? An assessment of the degree to which the envisaged outputs have been produced and whether the quality and timing were satisfactory. Provide 2-3 sentences describing the status of planned outputs.

The planned outputs were produced, and the quality and timing of delivering outputs were satisfactory. The IW R2R project implementation works closely with the R2R STAR Project, which financially supports several other project activities of the IWR2R project. The issue impacting the progress of implementation is also that both projects are implementing similar outputs and outcomes and could not identify a clear pathway to implement the R2R activities. The outputs benefited both projects in the end.

For instance, both projects benefited from the preparation and endorsement of a Water Use Efficiency and Cost Recovery Plan, recognising the lengthy process of negotiations and finalisation of the ToR, hiring of local consultants, and conducting fieldwork and report writing. It took a while to convince Cabinet Ministers to approve this output, and by the time it was approved to develop the plan, the IWR2R Project is almost to a closing phase. The insistence of the IW R2R Project Manager and the Department of Utilities paid off in the end ensuring the plan is developed and endorsed. The WUE report is an excellent document for water security and management purposes.

Unfortunately, the remaining time was short, and the project failed to have the ToR endorsed by the cabinet, hire local consultants and therefore unable to achieve and deliver on the outputs of ICM planning.



- 3. Objectives:** To what extent have the outputs contributed to achieving the project objectives? If not achieved, what is/are the reason/s for non-achievements and how this can be remedied? Provide 2-3 sentences describing the status of whether the objectives will be achieved or not. If not, what do you recommend as remedial measure/s?

The Niue IWR2R project has 3 components, 7 outcomes and 14 outputs. The self-assessment of progress delivering on the project objectives and outcomes is rated moderately satisfactory. Five (5) of the seven (7) outcomes were assessed as achieved, which suggests moderately satisfactory progress, however, recognising operational challenges encountered.

This rank is truthful in assessing the IWR2R Project progress but recognising the operational challenges that can be shared is that there is only one Project Manager per member country that is expected to drive the 3 components, 7 outcomes and 14 outputs. The coordination of the National STAR R2R and IWR2R projects was challenging, and the funds available and allocated for each project are vastly different. The amount budget for the IWR2R project is not sufficient even if it is to operate on its own to implement the science-related activities.

The outputs do contribute to the achievement of the project objectives noting that other Projects implemented by other agencies in Niue contribute to the achievement of the project objectives by working collaboratively with IWR2R. It is also recognised that the IWR2R Project's objective is to test the mainstreaming of the ridge to reef, climate resilient approaches to integrated land, water, forest, and coastal management in the PICs through strategic planning, capacity building and piloted local actions to sustain livelihoods and preserve ecosystem services. Therefore, the project outcomes particularly delivering on the water policy framework along with an extensive awareness-raising programme and training about IWR2R principles and broader role in addressing priority environmental threats go a long way in contributing to achieving the project objectives. Ridge to Reef National's objective is "stronger conservation and sustainable use (of land, water, marine areas, and biodiversity), and this will be achieved by building on cultural values, through integrated national and community actions.

- 4. Sustainability** of the project results: To what extent will the intended results of the activity be sustainable? What are the sustainability elements (such as technical, policy, financial, etc.) that have been considered? Provide 2-3 sentences describing your efforts of securing and sustaining the project results.

The GEF Pacific IWRM Project acted as a valuable entry point for strengthening integrated approaches to natural resource management in the Pacific SIDs including Niue. Existing national coordination mechanisms involving the operation of inter-linked national APEX bodies for IWRM and local coordinating committees for IWRM demonstration projects have been effective in guiding stress reduction in the water and sanitation sector and driving reform of national IWRM policy and planning. The implementation of the IWR2R Project benefitted from these earlier lessons on governance, partnerships, resource management and planning.

The IWR2R encountered important experiences, lessons and challenges which are strategically useful results to inform and strengthen further testing, scaling up and replication efforts in future R2R investments and ICM planning. The tools developed are useful to sustain technical, policy and financial imperatives and technological initiatives through integrating and mainstreaming R2R approaches. The intended results of the activity are very important since they lay down the conditions for real impact to be achieved, and this will only accrue if the project results are sustainable. The project has therefore been carefully designed to optimize the prospects for sustainability of its products and results and pave the way for replication.

5. Risks/Assumptions/Conditions: To what extent were the previously identified conditions, assumptions and accompanying risks addressed? Indicate whether the original risks and assumptions are still valid and whether the conditions were honoured and/or dealt with?

Context	Specify the identified Conditions, Assumptions and Risks	Provide your assessment in this column
Conditions	Government staffs continue to collect and monitor data collected from water bores and reservoirs	There will be consistency and sharing of data on water quality monitoring is updated and better communication with water quality monitoring.
Assumptions	Government staffs are available for training in and the implementation of the monitoring programme.	Improve staff capacity in water and coastal monitoring.
Risks	Consistent use of standardised data collection methods and procedures.	Data collection methods and procedures are monitored, stored, and reported.

Also, assess the overall risk factors (internal or external) to the project which may affect implementation or prospects for achieving project objectives. Use the following scale in rating the risks:

High Risk (H)	There is a probability of greater than 75% that assumptions may fail to hold or materialize, and/or the project may face high risks.
Substantial Risk (S)	There is a probability of between 51% and 75% that assumptions may fail to hold and/or the project may face substantial risks.
Modest Risk (M)	There is a probability of between 26% and 50% that assumptions may fail to hold or materialize, and/ or the project may face only modest risks.
Low Risk (L)	There is a probability of up to 25% that assumptions may fail to hold or materialize, and/ or the project may face only modest risks.

6. Overall Implementation Progress Rating

Provide an overall rating of the implementation progress. Also, provide (in 1-2 sentences) the basis of your rating. For the rating, use the following rating definition:

Highly Satisfactory (HS)	Implementation of all components is in substantial compliance with the original/formally revised implementation plan for the project. The project can be presented as "good practice".
Satisfactory (S)	Implementation of most components is in substantial compliance with the original/formally revised plan except for only a few that are subject to remedial action.
Moderately Satisfactory (MS)	Implementation of some components is in substantial compliance with the original/formally revised plan with some components requiring remedial action.
Moderately Unsatisfactory (MU)	Implementation of some components is not in substantial compliance with the original/formally revised plan with most components requiring remedial action.
Unsatisfactory (U)	Implementation of most components is not in substantial compliance with the original/formally revised plan.
Highly Unsatisfactory (HU)	Implementation of none of the components is in substantial compliance with the original/formally revised plan.

Satisfactory; Implementation of some components is in substantial compliance with the original/formally revised plan with some components requiring remedial action.

Both IW R2R and R2R STAR Project work closely with the other Projects collaboratively which complements the activities allowing for additional support in completing the activities which are linked to one another.

Project Contributions to the Regional IW R2R Program Outputs and Outcomes

This Chapter provides snapshots of the national project contributions to the Regional Ridge to Reef program components such as:

1. National demonstration to support R2R ICM/IWRM approaches for island resilience and sustainability. Specifically, an account of the status of:

1.1 Successful pilot projects testing innovative solutions involving ICM, IWRM and CCA (linked to the STAR via larger Pacific R2R network).

The identified innovations should lead to a reduction of stresses and improved catchment management. The contribution by the IW R2R Project also led to the reduction of stress and improved catchment management which is highlighted here:

- *IW R2R Project is a member of the National R2R STAR Project Working Group Committee*
- *Support World Water Days Celebration Annually*
- *Provide funding support in settling the importing cost of the forklift machinery with the EU-GIZ Wastewater Project, it is part of a partnership between projects at implementing activities to ensure completion on time. The target is through septic system upgrades in Alofi Town.*
- *Procuring of incubator for Niue Fooo Hospital to ensure water sampling is properly tested and reported.*
- *Support Niue Fooo Hospital's proposal for a full sanitation survey of the drinking water supply system and identify potential sources of contamination in the system.*
- *Support National R2R Project Village consultation.*
- *Support the engagement of a Local Consultant to develop a WUE Policy and Cost Recovery Plan.*
- *Support the compilation of awareness material (MURAL) for the Western Side Marine Learning Centre located at Tuapa Village.*

1.2 National Diagnostic analysis for ICM conducted for prioritizing and scaling up key ICM/IWRM reforms and investments.

Indicate the status of the conduct of diagnostic analysis for priority coastal areas establishing the environmental state and socio-cultural information.

The Project currently engage a pilot community-based resource management partnership with the University of Wollongong, Australia, to assist Tuapa village with a focus on the coastal in-situ learning centre to be located there, with the potential to roll out for other coastal villages in the western reef. From this activity, IW R2R will support and work collaboratively and replicate establishing learning centres in the other villages.

1.3 Multi-stakeholder leader roundtable networks established for strengthened 'community to cabinet' ICM/IWRM.

To ensure strengthening the community to cabinet network National STAR R2R Project includes Village Councils and communities in project activities. In all 14 villages, National STAR R2R Project Team coordinated 2 rounds of consultations and allowed the communities to voice their issues and concern and R2R Project to assist.

Provide information on how the local leaders and local government engage/participate in multi-stakeholder dialogue and roundtable networks.

2. Island-based investments in human capital and knowledge to strengthen national and local capacities for R2R ICM/IWRM approaches, incorporating climate change adaptation

- 2.1 National and local capacity for ICM and IWRM implementation build to enable best practice in integrating land, water, forest and coastal management and climate change adaptation.

The Post Graduate training course contributes to the improvement and enhancement of the capacity in addressing issues in relation to climate change, management of waste, water monitoring etc.

There are 5 participants from Niue who were enrolled in the JCU Post Graduate Certificate in R2R. Due to workloads and commitments that have overcome the participants which leads to 4 of the Niuean participants withdrew from the course. Which left only one that complete both the Graduate Certificate and Graduate Diploma in Sustainable Development Ridge to Reef.

Niue sincerely thanks this program for the encouragement to pursue and complete the Post Graduate course for all R2R Project Managers and members.

Provide information about the post-graduate training course and account of how it contributes to the enhancement of R2R ICM/IWRM management capacities.

- 2.2 Incentive structures for retention of local R2R expertise and inter-governmental dialogue on human resource needs for ICM/IWRM initiated.

In relation to 2.1 and the other capacity building activities conducted by this project, provide an account of whether national human capacities in R2R have improved.

Such a course offered, truly helped improve national human capacities in Niue.

3. Mainstreaming of R2R ICM/IWRM approaches into national development planning

- 3.1 National and regional strategic action frameworks for ICM/IWRM endorsed nationally and regionally

Provide information about the functioning of the Inter-Ministerial Committee, particularly the implementation of agreements and strategic action framework on land, water, forests, and coastal management, including the use of the 'State of the Coasts/ Islands' reports as a basis for decision making and R2R investments.

The Inter-Ministerial Committee was not established, it was encouraged by the Project Director/DG MNR to utilize the R2R Working Group Committee and IW R2R PM will be a member of the committee.

- 3.2 Coordinate approaches for R2R integrated land, water, forests and coastal management and climate change adaptation

Provide a description of the networks of national R2R inter-ministerial committees and linkages and coordination with existing and other IWRM committees. Indicate whether the coordination has improved and whether the improvement is attributable to the national project interventions or activities.

Since Inter-Ministerial Committee is not established, IW R2R is a member of the R2R Working Group Committee which is coordinated by the National STAR R2R Project. And the Working Group Committee provide reporting to the PEB which the Minister of the Ministry of Natural Resource is the Chairperson. The coordination has improved and is attributable to the national project activities

Project contributions to the GEF Focal Areas, SDGs including Special Themes

This section provides snapshots of the contribution of the national demonstration project contributions to the GEF Focal Areas such as International Waters, Biodiversity Conservation, Land Degradation, Sustainable Forest Management, and Climate Change Adaptation. Provide response only to the appropriate GEF Focal area/s where your project contributes to. Delete those that are not applicable or relevant.

GEF Focal Areas

1. International Waters

Describe the project contribution towards achieving collaborative management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services. The aim here is to illustrate how the project contributes to eliminating or reducing threats to international waters through catalysed multi-state cooperation to address concerns of transboundary water systems with a special impact on conjunctive management of fresh and groundwater resources, rebuilding marine fish stocks and protecting coastal habitats. Based on your national demonstration projects, make an inference, and ascertain the link between the measures for reducing stress and nutrient pollution to the rivers and coastal ecosystems, improved catchment planning and management, etc.

This IW R2R Project did contribute to eliminating or reducing threats to international waters through catalysed multi-state cooperation to address concerns of transboundary water systems with a special impact on conjunctive management of fresh and groundwater resources, rebuilding marine fish stocks and protecting habitats. By providing funding support to an EU-GIZ Project that was currently implementing the improvement and contributing to the protection measures that upon the implementation will protect approximately 160 ha area. While the focus of the project is limited by its resources, the extent of the impact particularly in terms of improved and enhanced awareness, understanding and visibility in support of R2R investments and ICM planning extends to the entire Niue population. Therefore, Niue's IW R2R project contributions are significant through the combined efforts of the Regional IW R2R project to the GEF IW focal area and relevant SDGs.

2. Biodiversity Conservation

Provide a summary of the project's contributions towards maintaining globally significant biodiversity and the ecosystems goods and services it provides to the society. Efforts aimed at conserving biodiversity and maintaining habitat in national protected areas systems, and conservation and sustainable use of biodiversity in production landscapes and seascapes.

Where appropriate, provide the description or background information of the project site (location, area, threats that the project is addressing, condition of the biodiversity, sustainable financing, and most importantly an assessment of the management effectiveness. Under the METT (Management Effectiveness Tracking Tool) Framework, information on the following areas should be assessed and evaluated such as **Context** (status and threats), **Planning** (where do we want to be and how will we get there?), **Inputs** (what do we need?), **Management process** (how do we go about it?), **Output** (what did we do and what products or services were produced?), and **Outcome** (what did we achieve?).

As an example, you may provide a description on the legal and policy aspects, status of enforcement, protected area objectives and design, demarcation and delineation, resource management, research, budget, and sustainable financing, and CEPA (Communication, Education and Public Awareness).

3. Sustainable Forest Management

Provide a summary of the plausible contribution of the project interventions towards achieving multiple, environmental, social, and economic benefits from improved management of all types of forests and trees outside of forests. Highlight the contribution of the project towards improving rural livelihoods and achieve environmental benefits. For example, provide the data on the reduction of forest loss and forest degradation that is attributable to the project interventions such as land use planning, catchment management, law enforcement and forest protection activities, etc.

4. Land Degradation

Provide a summary of the project contributions to arresting and reversing current trends in land degradation, specifically desertification and deforestation. Specifically, activities that could bring about sustained productivity of agro-ecosystems and forest landscapes in support of human livelihoods. An example of this could be measures implemented geared towards improving land productivity, climate smart agriculture, landscape management and restoration, and improved livelihoods in rural areas.

5. Climate Change Adaptation

Provide a summary of how the project contributes to increasing resilience to the adverse impacts of climate change in vulnerable communities in the project sites. Plausibly infer the contribution of the various short-, medium- and long-term adaptation measures in affected sectors, areas, and communities; leading to a reduction of expected socio-economic losses associated with climate change and variability. For example, awareness-raising activities on the climate change impacts, conduct of risks and vulnerability assessments, and access to climate information and warning systems.

Sustainable Development Goals (SDGs)

This section captures the plausible contribution of the national projects to the relevant Sustainable Development Goals, otherwise known as the Global Goals. The project is expected to contribute to 11 of the 17 SDGs. These are SDG 1 – No poverty, SDG 2 – Zero hunger, SDG 3 – Good health and well-being, SDG 4 – Quality education, SDG 5 – Gender equality, SDG 6 – Clean water and sanitation, SDG 12 – Responsible production and consumption, SDG 13 – Climate action, SDG 14 – Life below water, SDG 15 – Life on land, SDG 17 – Partnerships for the goals. Please use the table below to briefly (in 2-3 sentences) indicate your project’s contribution to the relevant SDGs. Please respond only to the appropriate SDG that your project is contributing to.

SDG	Project contributions
SDG 1 – No poverty	
SDG 2 – Zero hunger	
SDG 3 – Good health and well-being	Yes
SDG 4 – Quality education	Yes
SDG 5 – Gender equality	Yes
SDG 6 – Clean water and sanitation	Clean water and sanitation are important public health and environmental priorities for Niue, which must be managed and sustained, that an integrated approach and partnership with other projects to work collaboratively to achieve this goal.
SDG 12 – Responsible production and consumption	
SDG 13 – Climate change	Yes
SDG 14 – Life below water	
SDG 15 – Life on land	
SDG 17 – Partnerships for the goals	Yes

Special Themes

1. Gender Mainstreaming

NA

2. Other markers – this is optional

Lessons Learned (Innovations and Catalytic Impacts)

A short account of the innovative aspects and catalytic impacts of the project. This section will mainly contain the summary or highlights of the lessons learned and experiences about the:

Lesson 1: Promotion of Ridge to Reef and Community to Cabinet Approaches and Supporting National and Regional Planning.

The GEF Regional International Waters Ridge to Reef Project adopts the doing is seeing the need from its GEF Pacific IWRM as a valuable entry point for strengthening integrated approaches to natural resource management in the Pacific. The Niue Integrated Water Resource Management Project provided the framework for the IW R2R to establish an enabling environment for policy reform and the mainstreaming of integrated approaches as part of national sustainable development planning. The project will focus on establishing new terrestrial and marine protected areas and enhancing ecosystem connectivity across Niue that will be complemented by support to communities to manage their production activities outside designated conservation areas in an environmentally friendly manner.

The project will provide coordination functions and linkages with GEF SCCF, biodiversity and land degradation focal areas in the national STAR projects and will facilitate dialogue and action planning through national Inter-Ministry Committees on responses to emerging issues and threats in the environment and natural resource management. The IW R2R Project for Niue was implemented in February 2017, with the Ministry of Natural Resource signing the MoU with the Pacific Community (SPC) to implement the IW R2R Project. The Project intended to:

- Building ecosystem and climate change resilience via national actions to strengthen the enabling environment and monitoring capacity of water systems in Niue
- Coastal and groundwater protection enhanced via targeted reductions in land-based contaminants
- Information management and community awareness increased in support of national integrated coastal management.

To be efficient with the two projects and not to establish another committee, it was decided that IW R2R will join and engage in a supportive R2R Working Group Committee to allow for coordination, communication and sharing of resources and capacity building activities. The ongoing informal communication between the two project managers as well as with representatives at the working group committee was in facilitated sharing of knowledge, information, and resources between the R2R STAR and IW R2R Project.

Lesson 2: Project Managers and Partners must have a good understanding of Project management and the establishment of agreements between the executive agency and project partners

The time between when one project completes and expects the next project to commence takes more than 12 months and the required project log-frame to be adjusted to cater for changes and priorities requires stakeholder engagement and completion of project outputs through initiatives undertaken during this period. If it was noted at this time, there should be a time for further review through adaptive measures as part of the inception phase.

For Niue, currently, there was some transformation within the government departments and a change of focal point for the IW R2R Project from Utilities to Natural Resources.

And the use of the MoU to ensure transparency and understanding among the partners and agencies of their commitment and expectations as a baseline for a better partnership.

The development of the Water Use Efficiency and Cost Recovery Plan provided a mechanism for the government and the community to ensure the quality of water is maintained, the groundwater is protected from land-based pollution and strengthened the capacity of monitoring our underground water resource.

Guided by the lessons learned templates and [guidance documents](#) made available by RPCU, the final lessons learned papers, experiential notes and other relevant reports will form part as an important annex to this final report.



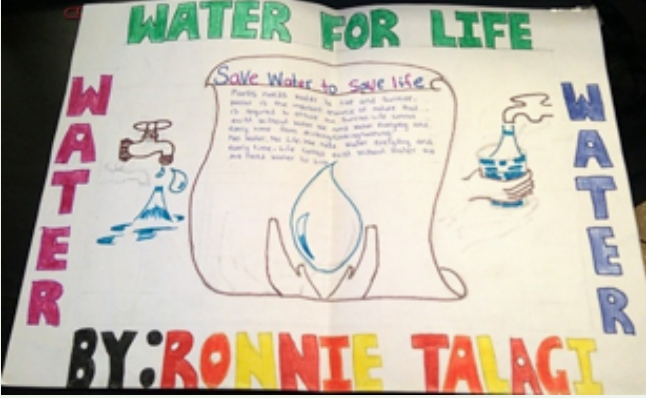
Similarly, the innovative and catalytic impact of either a specific technology package or the overall national IW R2R project can be dissected using an assessment framework. Specific to this, below are just examples and a quick and dirty guide for dissecting or assessing implementation experiences.

Annexes

Annexes	Title of the document
Annex 1	Niue National Framework for Improving Water Use Efficiency and Cost Recovery Strategy⁵
Annex 2	Development of Options for Centralized Treatment of Household Wastewater in Niue
Annex 3	World Water Day Posters: Niue High School Students (see details next pages)
Annex 4	Tuapa-Uhomotu Marine Learning Centre https://www.pacific-r2r.org/sites/default/files/2021-07/Niue_Learning_Centre_Banner_web_2.jpg https://www.pacific-r2r.org/sites/default/files/2021-07/Niue_Learning_Centre_Banner_web.jpg
Annex 5	Niue National R2R Programme Document https://www.pacific-r2r.org/sites/default/files/2020-03/Niue.pdf
Annex 6	Progress Report 2017 https://www.pacific-r2r.org/sites/default/files/2020-03/Project_Progress_Niue.pdf
Annex 7	Niue IWR2R Project webpage https://www.pacific-r2r.org/partners/member-countries/niue

⁵ Access to this document is only by consent and approval of the Ministry of Natural Resources, Niue Government. Please contact the ministry directly.

Annex 3: World Water Day Posters: Niue High School Students

Poster	Student Name
	<p>Year 7 Poster: 1st placing Tiquesha Tomailuga</p>
	<p>Year 7 Poster: 2nd placing Krisanne Talepita</p>
	<p>Year 7 Poster: 3rd placing Ronnie Talagi</p>

Poster

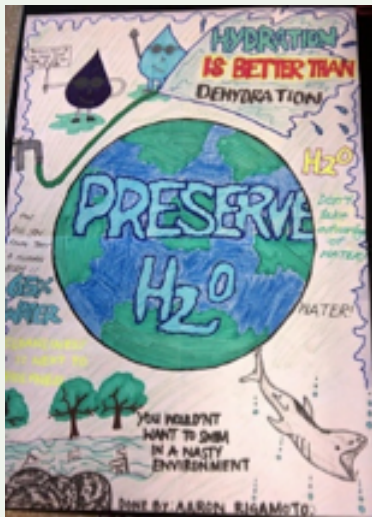
Student Name



Year 8 Poster: 1st placing Anneliese Pavihi



Year 8 Poster: 2nd placing Tony Aholima



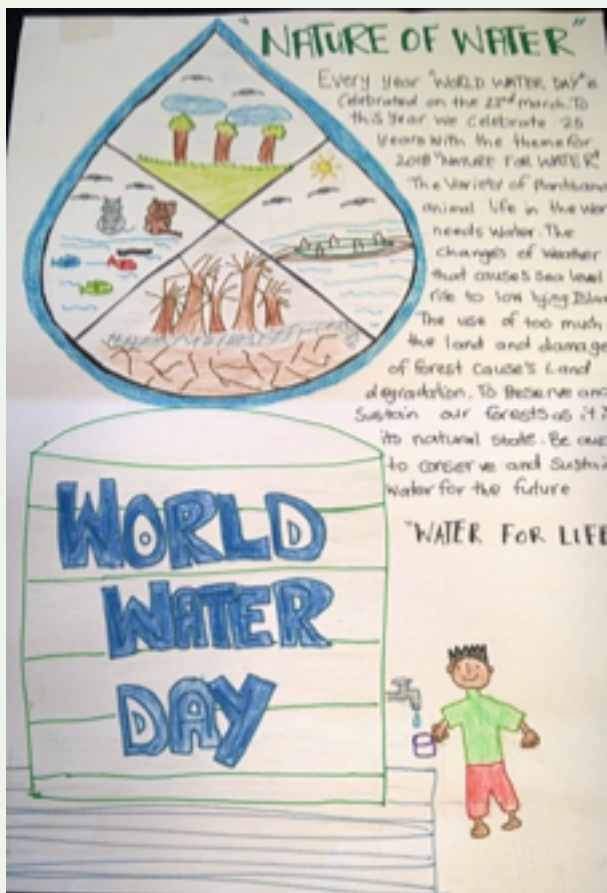
Year 8 Poster: 3rd placing Aaron Ringamoto

Poster

Student Name



Consolation Prize: Chanette Seumanu



Consolation Prize: Lance Tukutama