



# VANUATU IWR2R PROJECT RESULTS AND LESSONS LEARNED



Empowered lives.  
Resilient nations.





Local botanist Sam Chanel (L) conducting forest assessment with field assistant  
 Photo by Ethan Gabriel (Havilah Enterprise)

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# Acknowledgements

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This publication was developed with assistance of [Eriksen to provide list of names or some general comment] of gThey are acknowledged [Please insert a list of all your key partners and stakeholders that you would like to acknowledge as contributing to implementation and to the compilation of this report]



Upper Tagabe Water Catchment, Port Vila, Vanuatu.  
*Photo by Ethan Gabriel (Havilah Enterprise)*

## Introduction

The Global Environment Facility (GEF) Pacific Ridge to Reef (R2R) Programme is a global test case aimed at achieving the sustainable development of Pacific Small Island Developing States (Pacific SIDS) within a truly integrated environmental and natural resource management framework.

The goal of the GEF Pacific R2R programme is “to maintain and enhance Pacific Island 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 programme supports and addresses national priorities and development needs of 14 Pacific island countries while delivering global environmental benefits by focusing on a more crosscutting and integrated approach to water, land and coastal management. It is a GEF multi-focal area, multi-GEF agency and multi-country initiative that guides the coordinated investment of GEF grant funding across its focal areas of biodiversity conservation, land degradation, climate change adaptation and mitigation, sustainable land, sustainable forest management, and international waters in Pacific SIDS. Countries are allocated funding for this programme under GEF’s System for Transparent Allocation of Resources (STAR).

The Pacific Regional International Waters Ridge to Reef (IW R2R) project – Testing the Integration of Water, Land, Forest & Coastal Management to Preserve Ecosystem Services, Store Carbon, Improve Climate Resilience and Sustain Livelihoods in the Pacific (IW R2R) is a component of the GEF Pacific R2R programme and is regionally executed by the Pacific Community (SPC) in 14 Pacific island countries.

The over-arching objective of the IW R2R project is to test the mainstreaming of 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.

The Regional Programme Coordination Unit (RPCU), implemented by the Pacific Community's Geoscience, Energy and Maritime Division in the Fiji Islands, is tasked with the provision of technical, operational, reporting and monitoring support as requested by the participating Pacific Island Countries.

The Vanuatu IW R2R demonstration project commenced in June, 2016 with Tagabe River Catchment Area (TRCA) as the pilot demonstration site. The overall goal is habitat restoration in the TRCA by supporting implementation of the Tagabe River Catchment Management Plan through coordinated partnerships, capacity building and strengthening monitoring and evaluation.

The TRCA has significant value as the only source of portable water supply for Port Vila City and nearby rural residents. It provides a range of ecosystem services that support the livelihoods of catchment residents. Development, urbanisation and climate change impacts threaten the health of the TRCA.

The project is thus committed to protect, restore and conserve the TRCA. In doing so, the project and its partners aim to collaboratively achieve improved water quality towards meeting national standards while also determine proactively to maintain underground water quantity to sustain the population for the long term run.

The Vanuatu IWR2R pilot project models R2R management approaches, complementing and building on the integrated water resource management (IWRM) approach. The project objectives focused on:



The division of Biodiversity and Conservation under the Department of Environmental Protection and Conservation (DEPC) of the Ministry of Climate Change, Meteorology, Natural Disaster, Environment and Energy was designated the lead agency for the IW R2R project. The project concluded on 30 June, 2021.

This publication showcases some of the most significant results and lessons of the project over the four-year term of implementation. It discusses the adaptive management processes that were employed during the project. The results and lessons learned have been developed to guide the planning, development and implementation of future programmatic approaches and investments in ridge to reef management and governance.

## Vanuatu – Ridge to Reef in context

The island nation of the Republic of Vanuatu comprises more than 80 islands of which only 65 are inhabited. Vanuatu has six provinces with combined land area of over 12,000 km<sup>2</sup> and a combined coastline of 3132 km. Vanuatu's exclusive economic zone (EEZ) spans an area of 680,000 km<sup>2</sup>. The volcanic island chain is in the formation of the letter "Y" and the islands are mountainous by Pacific standards. The interior of most of the islands is uninhabited (NBSAP 2018). The 2016 mini-census counted Vanuatu's population at 272,495 people with a growth rate of 2.3% per annum (Vanuatu National Statistics Office 2016).

The IWR2R project focused on addressing linkages between upstream and downstream systems and restoration of upstream Tagabe River as well as the riparian areas in the lower coastal areas. The project aimed to replicate lessons learned through the previous IWRM Project in the Sarakata Catchment (the main source of water for the town of Luganville on Espiritu Santo Island). In particular, it focused on strengthening and coordinating partnerships between stakeholders and among partners to progress the development and implementation for a management plan for the Tagabe River.

Similar to the Sarakata Catchment, the Tagabe River Catchment Area (TRCA) is the national pilot demonstration site for Vanuatu IW R2R Project and it is the only potable water supply source for Port Vila city and nearby rural areas. The TRA has an area of 29.76 km<sup>2</sup> (DoWR personal communications 2017) and is divided into two sections: the upper catchment and lower catchment, which are varied in their physical and biological features and use.

The lower catchment is mainly the Tagabe River, which flows in a westerly direction, discharging into Mele Bay on the Blacksand coast. Enterprises such as Tusker Factory and other major commercial shops are concentrated at the lower catchment. This section of the catchment is also subjected to high-density of residential settlements residing around municipality areas. Located further downstream are the many informal settlements along Tagabe River all the way to the coastal areas (Tagabe River Catchment Management Plan 2018). Human induced impact on the environment is considered a more serious concern to waste management along the Tagabe River. More than 15 island communities are established along Tagabe River, with the population topping-up as far up to 100 per communities on minimum.

The upper catchment consists of three water protection zones established under the declaration of Matnakara Water Protection Zones Order 119 of 2017 as regulation in fulfilling the provisions of Water Resource Management Act. Each MWPZ is segregated and subject to specific activities that should mitigate and cause minimal impacts to underground water reservoir. Livestock farming and agriculture activities, with relatively small area of highly-dense settlements marked out in MWPZ 3 that is expanding rapidly over time (Tagabe River Catchment Management Plan, 2018). The international airport is situated across MPWZ 2 and 3.

The IW R2R project pursued outcomes under three components:

**Component 1: Strengthening coordination in support of the development and implementation of the Tagabe Catchment R2R Management Plan**

This component targets:

- Enhanced performance and accountability of the Tagabe River Management Committee (TRMC).
- Replication of Best Practices & Lessons Learned from IWRM Sarakata Catchment Demo Project.
- Improved inter-agency partnership in sustainable catchment management.

**Component 2: Strengthening the capacity for participatory monitoring and evaluation of the Tagabe River Catchment R2R management plan to strengthen the enabling environment for coastal area management**

This component targets:

- Improved data collection for the implementation of the Tagabe Catchment R2R Management Plan.
- Increasing local community, business and government agency capacity for environmental monitoring of Tagabe River Catchment Area.
- Endorsed PM&E Plan for catchment management for replication to other STAR R2R coastal areas

**Component 3: Establishing partnerships for sustainable coastal area development**

This component targets:

- A multi-sectoral partnership that should revive the Existing Botanical Garden providing environmental and educational benefits to the Tagabe River Catchment.
- Community to local government partnerships for sustainable land and surface water use preserving livelihood.
- Public-private partnerships for coastal area use preserving ecosystem services and community resilience.

The subsequent sections highlight the approaches taken, project results and lessons learned.



# Community to Cabinet Approach

The community to cabinet approach underpinned the success of the previous Integrated Water Resource Management (IWRM) project, which placed significant emphasis on engagement and involvement of communities, especially landowners and community leaders, in the development and uptake of national policy. It is well-recognised that the participation of civil society organisations and community leaders in development planning is essential to increase the local relevance of management actions and secure sustainable results. The following outlines existing cross sectoral coordination arrangements and efforts to engage stakeholders in Vanuatu IW R2R project.

## Strengthening Cross-sectoral Coordination and Planning

By its nature, a ridge to reef approach requires cross-sectoral coordination and planning. Different government agencies and regulatory bodies will have jurisdiction over different areas, and they will need to identify ways of working together.

The Natural Water Resource Advisory Committee (NWRAC) is Vanuatu's lead cross-sectoral body for water resources management. It is an inter-agency body whose role is to provide advice to the Director on matters relevant to the protection, management and use of water; oversee the proper planning and development of urban and rural water supplies; and enable coordination of water resource management activities.

The Tagabe River Management Committee (TRMC) is a legally established body responsible for coordinating activities in the TRCA and raising issues with the NWRAC. The TRMC brings together all relevant sectors, having equal and cross sectoral representation of relevant agencies from both government and private institutions, including NGOs and CBOs representing traditional resource managers and communities. Donor projects such as SPC IW R2R project, SPREP PEBACC<sup>1</sup> Project and SPREP PACRES<sup>2</sup> Project are the main collaborating project partners for TRMC.

On-site NGO Wan Smol Bag (WSB) and the CBO Ifira Marine Management (IMM) have been actively pursuing community engagement in resource management and protection in the area for at least the past 5 years. They are thus trusted to relevantly represent community concerns at TRMC meetings. The project recognised the efforts of these agencies and the need to further progress integrated, complementary, strategic and programmatic approaches to ensure sustainable impacts and changes are observed.

The success of the Vanuatu IWR2R Project was entirely dependent on the relationships and partnerships established between its immediate stakeholders and the afore-mentioned ecosystem based adaptation projects. By taking the approach of recognising the TRMC as its steering committee, the IWR2R has been able to deliver effectively and efficiently on its targets.

In 2017, the development of the Tagabe River Catchment Management Plan 2017 – 2030 provided the TRMC with a strategic direction and clear management objectives towards safeguarding the quality and security of the Port Vila water supply. The IWR2R project activities were incorporated into the TRMC business plan to further promote the cross-sectoral implementation.

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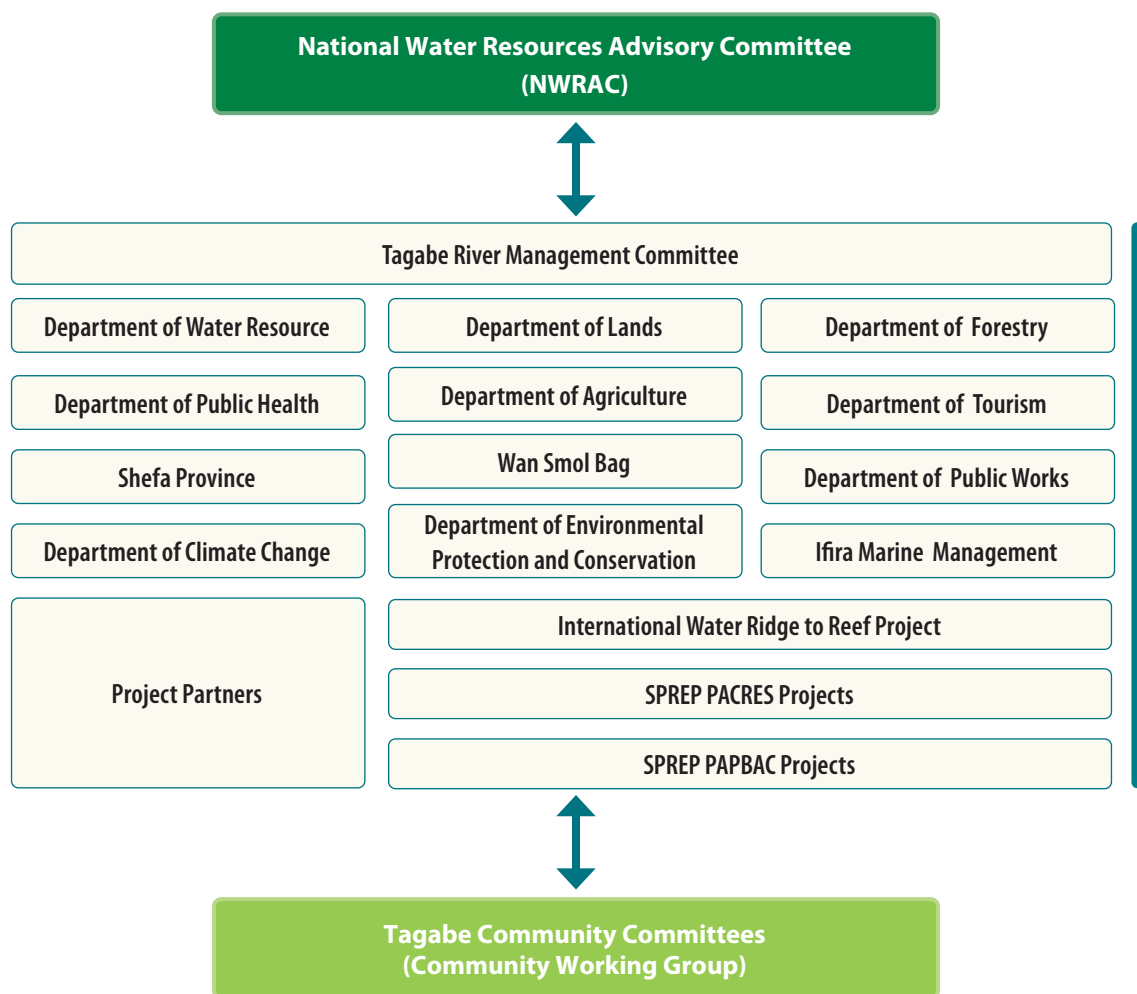
1 PEBACC - Pacific Ecosystem-based Adaptation for Climate Change project

2 PACRES - Pacific Adaptation to Climate Change and Resilience Building project

# Linking Local and National Coordination

TRMC provides the communication medium through which information is shared and decision making undertaken at the community level. Concerns of communities are taken directly to the TRMC quarterly meetings through local NGOs and civil society organisations (CBO) such as Wan Smol Bag and Ifira Marine Management. However, it still remains a significant challenge to ensure informed decisions by the TRMC are effectively enacted at the community level.

This is a result of diverse communities residing along Tagabe River i.e. lower catchment. Communities are defined by their cultures and island of origin, and community boundaries informally depend on settlement establishments. With the large number of different island communities in the area, there is also the issue of internally weak governance. Decision making mechanisms within communities are based on traditional governance systems, which are slowly progressing in addressing environmental matters at a community management level.



**Figure 1** Communication structure of TRMC (NSPC) communication channel from Community to Interministerial Committee

Despite the challenges, TRMC compliance team ensures compliance and law enforcement by communities and developers of the current regulation of MWPZs, development formalities (development permits) and other supplementary general environmental laws. The TRCA management plan is however, implemented by responsible parties, the project and partners by engaging and involving the communities directly and similarly refer their concerns to TRMC meetings.

Building on the lessons and experiences of the IWR2R Project, the current PACRES Project<sup>3</sup> has in place a proposal to establish a local climate change committee (LCCC) for each community and to also map out community boundaries. Change agents are to be identified and form the LCCC to mend the communication structure from TRMC to the communities. Project activities and the management approach should have greater chance to positively impact the livelihoods of river-side residents while also introducing sustainable approaches and practices.

The TRMC collaborates with stakeholders and communities to bring forth issues to the National Water Resource Advisory Committee (NWRAC) by providing advices to NWRAC (Tagabe River Catchment Management Plan, 2018). In this way pressing matters and necessary decision making can be further addressed by NWRAC for resolutions. NWRAC is a high level leading cross-sectoral body for the water resource management. TRMC also gains support from the National Waste Water Task Force (NWWTF) especially in dealing with liquid waste issues from industrial facilities like Tagabe River.

In addition, a technical working group called the Tagabe River Riparian Restoration Project was established in 2019 with stakeholder representation from DEPC, DOF, DOWR, Shefa Provincial Government, TRMC, SPREP PEBACC Project, and IMM with community referrers from Black sand, and Tagabe. The TRRRP is responsible for executing programmatic activities to restore riparian areas of Tagabe River. Communities are mobilised and coordinated by this committee from awareness programs to tree planting.

## Stakeholder Engagement

### Coordinated Partnership across Sectors

The national project steering committee (NPSC) is comprised of the following stakeholders (figure 2). Within the Tagabe R2R implementation plan 2017–2030 defines each government agencies as implementers. For example, the gazetting of MWPZ has Department of Water Resource (DOWR), Ministry of Land Natural Resources (MLNR) and State Law Office

As the leading implementing agencies. Other government agencies further outline in figure 1 are regarded with similar functions depending on the nature of activities. As being the lead implementers they either participate, consulted, provide technical advices, monitoring and enforcement.

The Department of Environmental Protection and Conservation (DEPC) supervises the project but also directly engaged in its participation and expertise directives with regards to habitat restoration programs. Department of Forestry (DOF) also provides technical support for this program and are regular consulted for tree collections and nursery raising. A memorandum of understanding (MoU) was signed on the 9th of April, 2020 between the IW R2R project and DOF for nursery raising of more than 6000 livelihood species of trees at DOF nursery.

UNELCO (Union Electrique du Vanuatu Limited), a Private Utility Authority under the concession agreement, partners with the DOWR and are responsible for monthly water quality monitoring along Tagabe River and the upper catchment. . TRMC compliance team is made of DEPC, DOWR, geologies and mine unit (GMU) and Shefa Provincial Government and the local municipality, which have legal mandatory roles in regulating new proposed developments and operations of existing developments in TRCA.

Site NGO Wan Smolbag engages with the communities especially with tree planting and clean-up campaigns along Tagabe River. Wan Smolbag theatre also leads in TRMC's knowledge management programmes, such as publishing short film documentaries and Tagabe River comic books. The Ifira Marine Management (IMM) has direct collaborative links to the project and has been enthusiastically participating in all project activities including marine surveys, awareness and clean-up campaigns along Tagabe River.

3 Pacific Adaptation to Climate Change and Resilience Building project

Provide a list of all the stakeholders in the IW R2R project (Update from National Programme Documents)

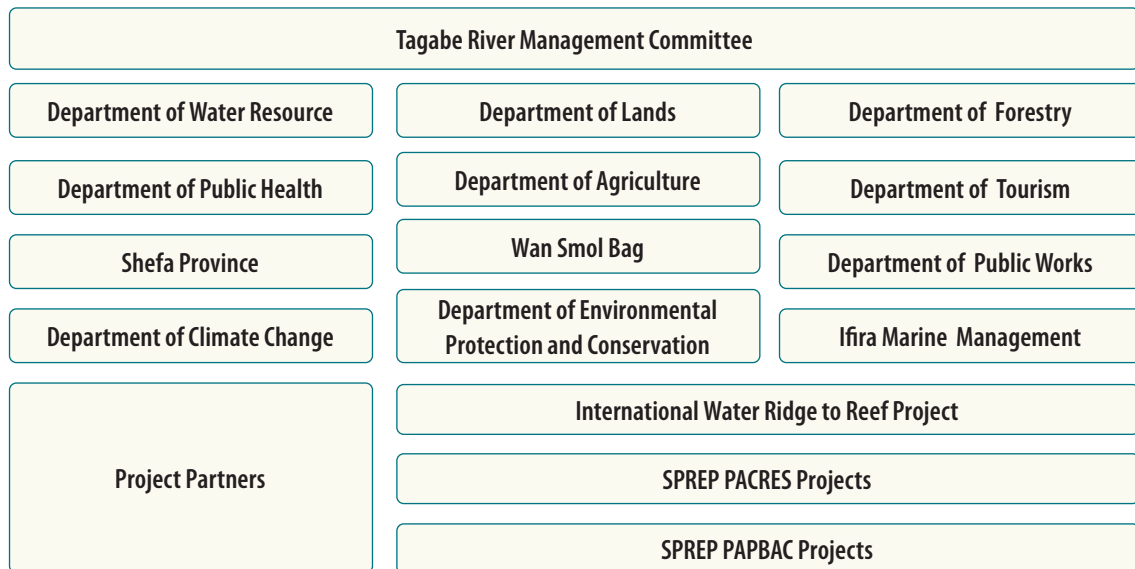


Figure 2 Vanuatu International Waters Ridge to Reef stakeholders

## Community Engagement and Participation with Project

Despite the establishment at sectoral management level of technical working groups such as the Tagabe River Restoration Project, it is recognised that the engagement and participation of communities is essential for the effective, efficient and sustainable implementation of activities such as riparian restoration, waste management and sustainable livelihoods, which all contribute to the sustainability of the TRCA. Previous efforts to restore and protect Tagabe River have had successes but lacked sustainability.

The need to practically engage communities and link them to relevant natural resources sectors/ authority was identified as a way to develop understanding of the role of river community residents as river managers. Tree planting activities and clean-up campaigns were used successfully to raise this awareness, which combined knowledge/information sharing (theory) with the practical, hands-on activities.

Over 20 different island communities resident along Tagabe River engaged enthusiastically in the riparian restoration activities, which continued throughout 2019–2020. The communities have taken ownership of the restoration initiative and are continuing to address replanting as well as waste mitigation practices along the river. The programmatic approach taken is consistent and ongoing throughout 2019–2020, with results delivering project target, rephrasing once again the restoration of riparian areas along Tagabe River. Yet the communities until this day have shown so much improvement, taking inarguably ownership to look restoration initiative along the river as well as significantly contributing towards mitigation of waste, while attributed to waste management practices.

# Project Results

## Process indicators

The GEF International Waters process indicators were developed to help characterise the completion of institutional processes on the multi-country or national level that will result in joint action of needed policy, legal and institutional reforms and investments that aim to reduce environmental stress. Traditionally, process indicators have been a measure of progress in project activities involving procurement and production of goods, physical structures, and services. Capacity and human resource development and stakeholder involvement have also been recognised as important to achieving sustainable project outcomes.

The complex nature of many GEF International Waters (IW) projects requires that there are additional process indicators adopted to reflect the extent, quality, and eventual on-the-ground effectiveness of the inter-ministerial, and cross-sectoral efforts that are at the heart of the GEF IW approach. Below are the most significant results of the Vanuatu IW R2R Project.

### Vanuatu IW R2R Project Chooses TRMC as its NPSC

A requirement of the IW R2R project was establishing a national project steering committee. In Vanuatu, the project commenced without a steering committee, however, it relied on the Tagabe River Management Committee (TRMC) for planning consultations and endorsement of joint project activities. As the project progressed, the value of this relationship became further evident and, in 2018, the process commenced to formalise the TRMC as the IW R2R NPSC. This was finalised in 2019 and was seen as a significant and progressive approach that built on the existing governance structure rather than adding new tiers. TRMC members already possess the baseline knowledge, information and are involved in efforts critical to the protection of TRCA. With equal representation of stakeholders and participation in planning and coordination, the IW R2R project was able to progress dramatically in the next two years, working collaboratively with other partners through the TRMC. The IW R2R Project was awarded the role of secretariat for the TRMC and this further strengthened the shared interest and commitment to protect, conserve and restore TRCA. This is our success story!

### Vanuatu IW R2R Develops and Implements the Tagabe River Catchment Management Plan 2016 – 2030

In collaboration with the TRMC, the IW R2R Project financially supported the development of the Tagabe River Catchment Management Plan (TRCMP) 2017–2030. This master catchment management plan incorporates the cross-sectoral R2R approaches into its implementation plan. Two workshops were held to guide the formulation of this first ever catchment management plan for Vanuatu, which was developed by the TRMC and its stakeholders. In 2017, a validation workshop was held to confirm and consult with important stakeholders on the appropriateness of the plan. The management plan provides a framework to govern all activities occurring within TRCA to minimise environmental stresses that would potentially diminish the quality and quantity of TRCA ground and surface water.



Figure 3 Tagabe River Catchment Management Committee 2017

The management plan integrates the major IW R2R activities and aligns them with sectoral policies and legislative frameworks, in turn linked with the national sustainable development plan (NSDP). Furthermore, the TRCMP combines all sectors together to oversee the coordination and implementation of this watershed management plan. Therefore implementation efforts by the IW R2R project not only contribute to international and regional objectives, but are also addressing and achieving national interests and priorities.

## Re-gazetting of Matnakara Water Protection Zones and TRMC Compliance

In 2017, a major milestone was achieved through the IW R2R and TRMC partnership. This involved a review of the Matnakara Water Protection Zones (MWPZ) to better define the activities permitted in each zone whilst also properly defining and identifying the boundaries for each zone.

The water protection zones are designated areas declared by the DoWR director under the subsection 26(1) of the Water Resources Management Act No. 9 of 2002. A sustainable and multi-purpose management system (Tagabe River Catchment Management Plan 2017) has been developed to ensure the MWPZ are maintained to protect the health and quality of the Tagabe River (the only source of fresh in Port Vila).

To ensure the MWPZ declaration maintains its overall purpose to protect TRCA from pollutants, the IW R2R lead the formulation of an overall compliance team to regulate activities arising in each water protection zones. TRMC compliance team is made up of Department of Water Resources, Department of Environmental Protection, Geology and Mines Unit, and the Shefa Provincial Government. Each of these government institutions are legally mandate regulate developments at a wider context. The IW R2R is also responsible to mobilize the compliance team and conduct monthly monitoring and enforcement with the catchment area.



Figure 4 Official launching of the Tagabe River Catchment Management Plan by the Honourable Minister of Lands, Alfred Mao, during the World Water Day Celebration March 22, 2018

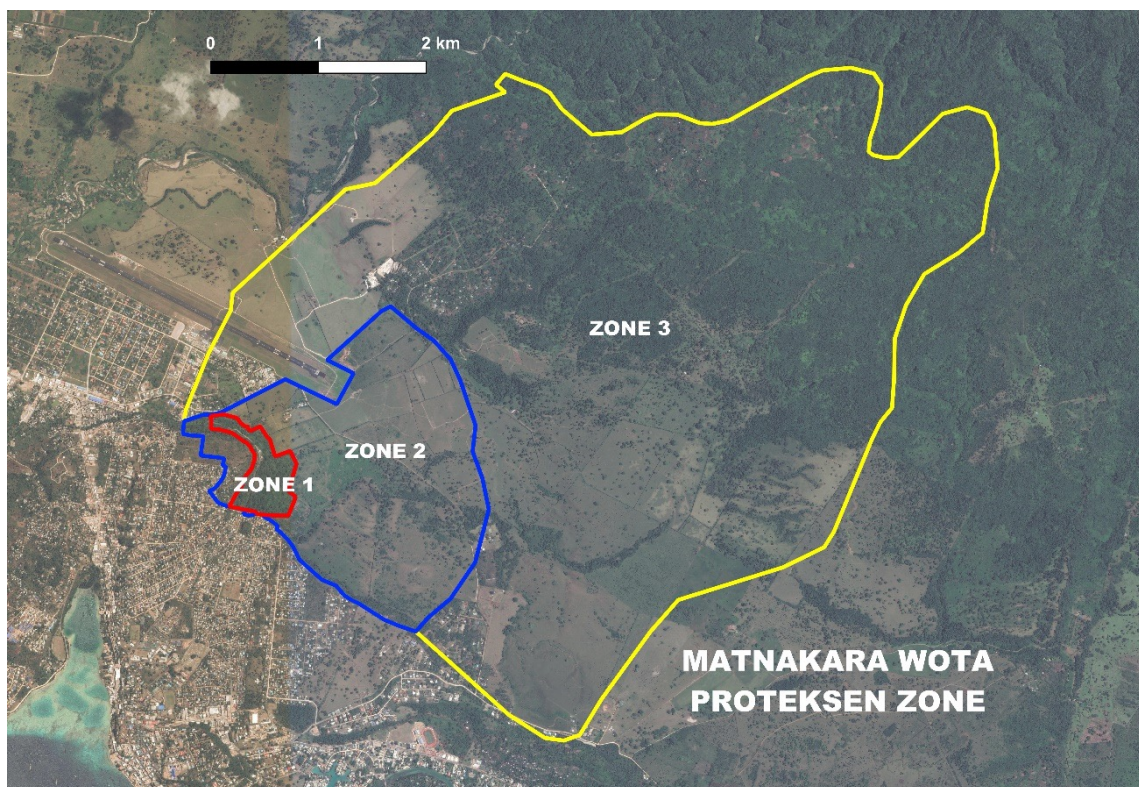


Figure 5 The Matnakara Water Protection Zones defined as the upper catchment for TRCA



Figure 6 TRMC Compliance team conducting inspection at zone 2 of the Matnakara Water Protection Zones

## Multisector Partnership for Tagabe River Riparian Restoration Project

Hosted under the leadership of SPREP Pacific Ecosystem Based Adaptation to Climate Change (PEBACC) in 2018 a technical committee was established to oversee the coordination of Tagabe River Riparian Restoration Project (TRRRP). Vanuatu IW R2R project assisted the PEBACC Project in drawing the stakeholder membership for this committee and was later defined as the TRRRP steering committee with members from Department of Water Resource, Department of Environmental Protection and Conservation, Shefa Provincial Government, TRMC Rep, IW R2R Project, Wan Smol Bag, and Ifira Marine Management (IMM). The committee was chaired by Department of Forestry and the SPREP PEBACC Project as its immediate secretariat.

The TRRRP also conducts awareness programmes with communities along Tagabe River addressing environmental issues affecting livelihood of river residents and the household use of the river. Awareness programmes also promote the adoption of eco-friendly and sustainable practices/approaches by the communities. To further boost communities understanding and achieve enhancement in mindset, communities were also engaged in tree planting and river clean-up campaigns.

The restoration of riparian areas of Tagabe River through the TRRRP began in 2018 with 2000 livelihood plants providing environmental and livelihood benefits to the communities. Further tree planting activities occurred through the portions of Tagabe River in 2019-2021. All stakeholders and community resident participated in this activity. TRRRP committee insist that the similar restoration program extended to Blacksand Coast. Therefore initiated the Blacksand Coastal Restoration project with the assistants from Victory Hope Primary School and coastal communities to restore in September 2018, a total of 800 coastal species. Its purpose to mitigate the impacts of CC and coastal erosion affecting coastal area.





Figure 7 Tagabe River Riparian Restoration Project (TRRP) Committee awareness with Tagabe River side community chiefs marking the start of an initiative to restore Tagabe River

## National Waste Water Task Force Inspection at Tagabe River

The national waste water task force was formally requested by the NPSC to inspect the waste water discharge by the Tusker Factory into Tagabe River. The Tusker factory had been suspected of discharging its waste water and thus has serious concerns were raised by the communities for a some time. A team from NWWTF conducted a water quality test in response to communities' concerns and the request from TRMC.



Figure 8 Victory Hope Primary School participated in tree planting to restore coastal areas of Blacksand



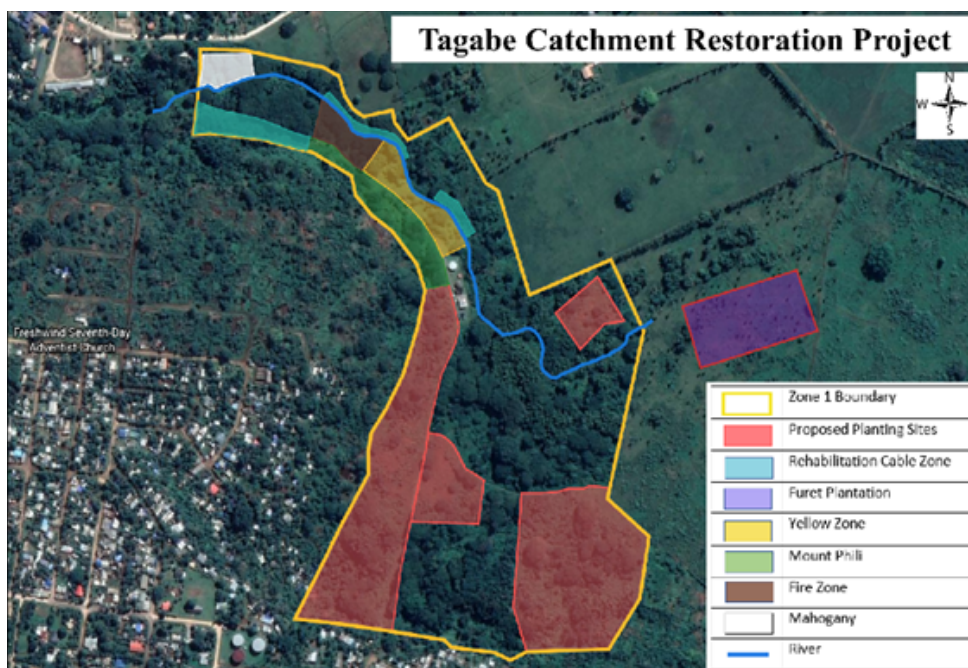
Figure 9 National Waste Water Task Force conducting water quality test (source: NWWTF)

## Stress Reduction

Stress reduction indicators relate to the impacts of specific on-the-ground measures implemented by countries.

The Vanuatu IW R2R demonstration project targets:

1. 30 ha established and planted with rare endemic species in Vanuatu





The pilot project began with its effort towards achieving the stress reduction measure in 2019 in achieving 30 hectares of habitat restoration as part of its obligated target. To-date, the project has only achieved 5% of its stress reduction.

However, towards achieving this particular target the project initiated the development and implementation of the “Tagabe Catchment Restoration Project”, with efforts to restore a native forest within Water Protection Zones 1 and 2 as part of its rehabilitation programs. The ongoing efforts by the TCRP is shown to restore 14.6 ha degraded site within water protection zone 1.

2. 2,570 ha of buffer area re-vegetated at Port Vila demonstration site in Vanuatu

Vanuatu pilot project also has this specific obligation to achieve 5,598 ha of buffer areas along Tagabe River. According to the target figure, the project has only achieved 4% success rate with current efforts as demonstrated by from the Tagabe River Restoration Project.

The 26 hectares identified above (fig 2) as part of the Tagabe River Restoration Project that has only resumed early last year by the SPREP PEBACC Project. This IW R2R Project signed an MOU with the Forestry Dept. to foster its support to rehabilitate the riparian areas of Tagabe River early March of this year. The project needs to again map appropriately the restoration site along Tagabe River to determine whether the Target has been reached.

# Environmental Status Indicators

For projects in damaged transboundary systems, collaborating countries must harmonize their sampling, laboratory, and analysis methods so that they all agree on what parameters should be sampled to track progress toward a goal. The State of the Environment and State of the Coast reporting represent this.

These agreed status indicators are measures of actual performance or success in restoring and protecting resources. They have been established jointly by GEF project participating countries so that they can be monitored by countries undertaking harmonized monitoring programs and reported to the relevant parties and stakeholders. Social indicators may also be appropriate here to measure whether communities and stakeholders benefit from the changes in environmental conditions brought about by the project.

Examples of Environment Status Indicators you might consider:

1. Measurable improvements in trophic status
2. Improved (measurable) ecological or biological indices
3. Improved (measurable) chemical, physical (including flow regimes), or biological parameters
4. Improved recruitment classes of targeted fish species, diversity, or keystone species
5. Demonstrable reduction of persistent organic pollutants (POPs) in the food chain
6. Changes in local community income and social conditions (stable or not worsened by the GEF intervention and, in some cases, improved) as a result of improvements in environmental conditions
7. Demonstrable recovery of key flagship species or values as a result of changed rule (operating) curves for dams or vegetative response from wetland re-inundation
8. Improved hydrologic balance as increases occur in the number of hectares of trees as a result of reforestation programs
9. Increased stakeholder awareness and documented stakeholder involvement

**PLEASE PROVIDE YOUR OWN DETAILED ACCOUNTS WHICH CAN BE ENHANCED DURING THE PUBLICATIONS PROCESS.**



Figure 10 R2R National Project Steering Committee Meeting

## Lessons Learned

### Lesson 1: Cross-Sectoral Engagement in Planning and Implementation

The Vanuatu IWR2R Project has been successful in its implementation over the past two years. Its progressive implementation is a result of a proactive stakeholder engagements at a sectoral level. The project is a member of the local watershed committee and acts as the secretariat to the committee. and therefore oversees the roles to conduct stakeholder analysis and reviews contingently whereby introducing new membership to the committee. To ensure cross-sectoral implementation of project activities, relevant stakeholders are involved in planning proceedings and in quarterly planning meetings to ensure that their input is captured. When the correct stakeholders are informed and consulted at the planning stages, implementation can be rolled out effectively, efficiently and in a participatory and coordinated way.

Stakeholder analysis is crucial and needs to be conducted at semester basis given the priority of the project sites as new projects are established within the project site through the year. The visibility level of project activity also attracts the interest of new project partners and stakeholders to current R2R stakeholder team to further persuade collaboratively in ensuring the introduction of innovative and sustainable management practices. Cross-sectoral engagement benefits the project through resource sharing, financial support, technical knowledge and expertise, and human resource capacity building and mobilisation, which facilitates the rate of progress at national level.



**Figure 11** Tagabe Huarere Youth Group engaged in tree planting along Tagabe River on the 21st of June, 2020 to mark the National Tree Planting Day.

It is important to conduct annual stakeholder engagement workshops to ensure ongoing sharing of information and instil a culture of partnership and collaboration between stakeholders. Stakeholders tend to independently carry out activities, which in fact, would benefit from a collaborative and participatory process. Therefore for those processing such knowledge, and for Vanuatu case, the project is always consistent and absolute in the overall coordination of R2R stakeholder team.

## **Lesson 2: Sustainability of project activities at community level.**

The sustainability of management approaches and practices introduced during the project requires a shift in the way communities view their surrounding environment and this may depend almost entirely on whether or not the project achieved positive impacts on the livelihood of the communities. The approach taken by the IW R2R Project and partners is based on “theory and practice”. In theoretical sense, affected communities members need information and knowledge on the best environmental practices, the concept (of R2R) and the associated benefits. However, to reach community consciousness requires hands-on, practical activities that involve the communities. Thus, in the TRCA, general awareness sessions with communities were followed by tree planting, which is a tangible and meaningful practical undertaking that builds on the knowledge that it will contribute towards maintaining the protection of the river health and livelihood of users and residents. Similarly, regular river clean-up campaigns are conducted with communities along Tagabe River.

These activities help encourage a mind-set transition among affected communities and vulnerable groups (children, youths, adults, elders, community leaders and people with disabilities) on how they view their surrounding river environment and establish their connections to it. The process is slow but effective and is being supported by project partners such as SPREP PEBACC Project, DEPC, DOF, Shefa Province, WSB and IMM.



Figure 12 Tagabe 21 Jump Street Environmental Group engaged in river campaign clean-up

### Lesson Learned 3: R2R Governance and Communication Structure

It is known that R2R adopts a cross sectoral mechanical approach in the management perspective and effective inter-agency partnership ranging from community to cabinet. The importance of having a complete functioning governance structure should reflect these two principals and is however integral to achieve clear communication of information and decision making process across sectors and to community level. A gap identified during project implementation that requires strengthening is to established management committees within resident communities.

The establishment of this site level committees should fulfil the overall communication structure and R2R governance that incorporates all stakeholders together to collaboratively contribute to the management effectiveness of a catchment watershed area. Project implementation and sustainability has a change of success, information and communication flow is easy and accessible to all R2R parties from top-down and across are the advantages of having established a R2R governance mechanism. The efforts to establish this chain of network should be considered in the first phase of implementation.



Figure 13 Community clean-up campaigns along Tagabe River

## Lesson Learned 4: Embracing Local Efforts and Traditional Resource Owners.

Vanuatu IW R2R project exemplifies a perfect scenario in embracing local efforts and traditional landowners and legal owners of land. The project consults and liaises with the traditional resource governance committee in place; the engagement of Ifira Marine Management (IMM) in project activity at community based level. Often these traditional governing bodies are able to mobilise settlement communities to see their responsibility as custodians of the river and to take proactive response toward river protection and restoration. .

The IMM in 2019 was a core technical implementing partner at the national level for the Vanuatu IW R2R Pango Point and Mele Bay Marine Survey. The survey was a contribution to R2R spatial prioritisation modelling of TRCA. NGOs such as WSB educate and encourage communities on managing solid waste along Tagabe River and work closely with the project to introduce innovative approaches to waste management, clean-up campaigns and advocacy programmes.

Acknowledging the local/on-site efforts of WSB and IMM helped the IW R2R project progress with its capacity building objectives. These important R2R stakeholders already have in-depth understanding of the project site and context and possess baseline information to assist the project strategically in planning and coordination. Similarly, the move to utilise the existing local watershed committee (TRMC) as the national project steering committee contributed to project efficiency and effectiveness in a relatively short time





**Figure 14** The Ministry of Lands, the Department of Lands, the Department of Water Resources, the Department of Environmental Protection and the Department of Forestry and communities involved in Tagabe river clean-up campaign at WWD, 22nd March, 2019.

## Lesson Learned 5: Project Management and Implementation Constrains

This is more of a concern in particular to national project logframe designed particularly the targets and duration of project implementation. Though Vanuatu IW R2R has been rapidly progressing for the last 2 years consistently, some of its major target are not achievable. Therefore it is very much crucial to take note on the implementation timeframe and project targets depending on the type of project. For such a project as this, an ecosystem based adaptation project having habitat restoration included as the stress reduction target, it require more than reasonable ecological amount of time for an ecosystem to be restored through our rehabilitation programmes. Trees take time to nursed in the nursery and then grown to maturity in nature. Again project targets should be designed to be achievable in reflection to the contextual nature of the demo-site.



Figure 15 Director General of Forestry, Moses Amos engaged in Tree Planting to launch the International Forestry Week, 2020

## Lesson Learned 6: Raising the Visibility of Government, Private Sector and Communities Combining Efforts

The Vanuatu pilot project is utilising the approach of theory to practice to be able to gain community consciousness of the surrounding environment. To achieve this change in mind-set, we formulate a more advance strategic engagement method which involves the participation of government and private sectors at our every on-site project activities engaging communities.

Major project activities contributing to the sustainability of Tagabe River and TRCA as whole such as clean-up campaigns and tree planting are schedule in national or global marked events. In a way gathers both the sectors and communities to work hand-in-hand and side-by-side in such activities on such occasions. This on the other demonstrates to the communities, that the government not only advocates but also retaliates to acts to promote the protection, conservation and restoration of the catchment. In this way, builds momentum to communities whom are technical players and most significantly the agents of change to be proactive at all times to adopt the adaptive measures and sustainable practices introduced to become managers of the rivers and coastal environment. Therefore sustainability is also guaranteed!

It has been customary for the project and R2R partners to host International Day of Forest, World Water Day, National Tree Planting Day, and International Forestry Week at the TRCA demonstration sites. On these significant occasions, government staff; Director Generals, Directors, Managers and Senior Officials participated in the organised programmes.

The year 2020 marked a significant event whereby the International Day of Forests (observed over 22nd-24th June) was hosted at Tagabe Catchment with the Minister of Agriculture and Forestry launching the event together with all his five directors and the director general along with the director of water resources planting trees at the MWPZ1.



*Vanuatu Rapid Coastal Assessment team member surveying plant species.  
Photo by Ethan Gabriel (Havilah Enterprise)*

