



CASE STUDY

Implementing a “Ridge to Reef” Approach to Protect Biodiversity and Ecosystem Functions in Tuvalu (R2R Tuvalu)

Background Information

The “Implementing A ‘Ridge to Reef’ Approach to Protect Biodiversity and Ecosystem Functions in Tuvalu (R2R Tuvalu)” project aims to maintain and enhance biodiversity and ecosystem services, sustain livelihoods, and improve resilience. To achieve these goals, the project features four primary components: (1) augmenting and strengthening conservation and protected areas; (2) rehabilitating forests and landscapes, and supporting integrated water resource management (IWRM) and integrated coastal management (ICM); (3) enhancing governance and institutional capacities at all levels to improve resource management; and (4) improving data and information systems to facilitate evidence-based planning, decision-making, and management of natural resources.

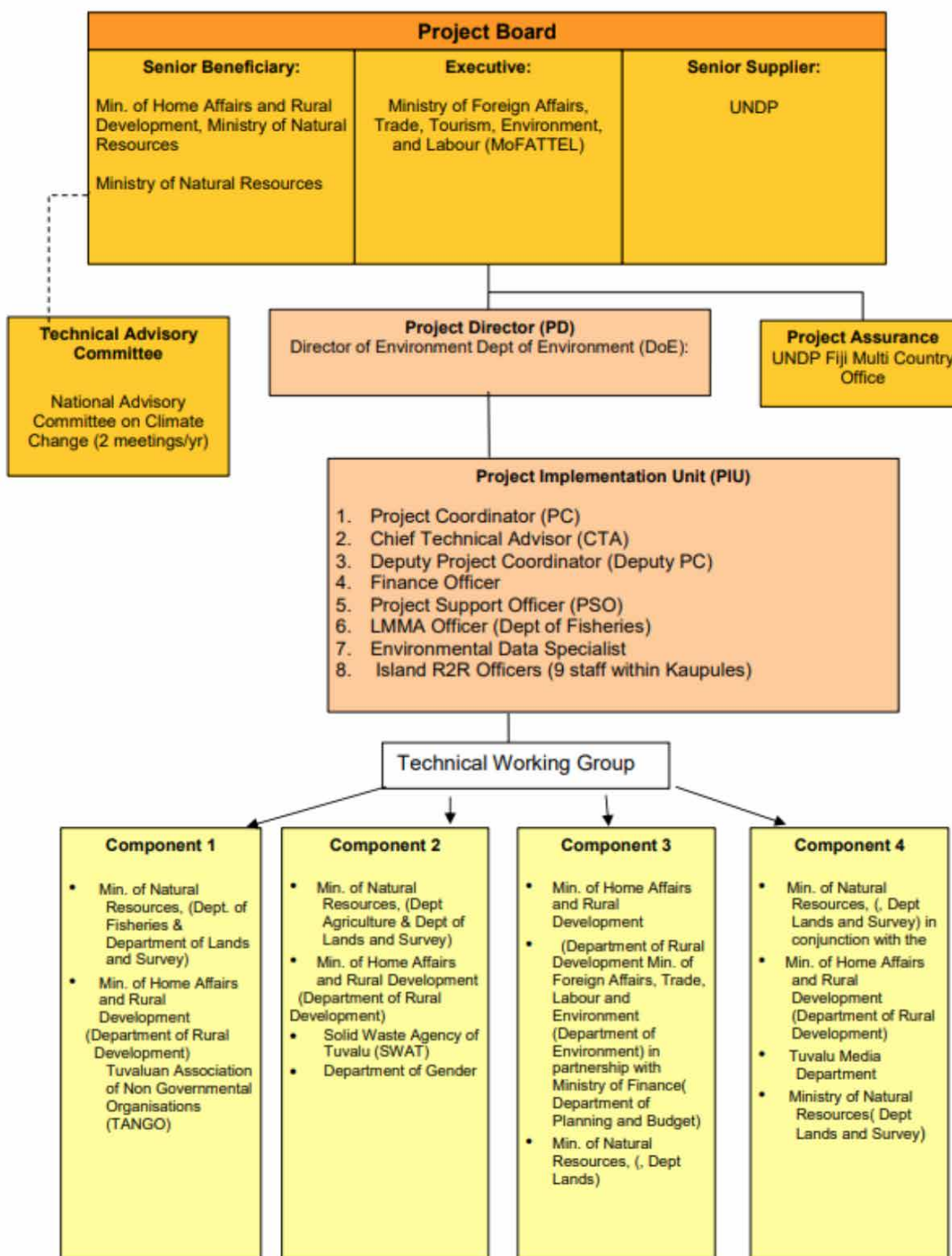
The Tuvalu R2R Project is part of the broader Pacific R2R program on “Pacific Islands Ridge-to-Reef National Priorities - Integrated Water, Land, Forest & Coastal Management to Preserve Ecosystem Services, Store Carbon, Improve Climate Resilience and Sustain Livelihoods.” The program is consistent with three of the Global Environment Facility’s five (GEF-5) focal areas: Biodiversity, International Waters, and Land Degradation. As such, the project is expected to make positive gains for the following programs: (1) the Convention on Biological Diversity (CBD)’s Programme of Work of Protected Areas (PoWPA) of the Aichi Targets and the National Biodiversity Strategy and Action Plan (NBSAP 2012–2016), (2) the UN Convention to Combat Desertification (CCD)’s National Action Programme (NAP), (3) the Sustainable and Integrated Water and Sanitation Policy (2012–2021), and (4) the Climate Change Policy and Action Plan.

Approach, Delivery, & Challenges

The R2R Tuvalu project is implemented across the nation’s nine islands to assess the status of natural resources and restore land-based and coastal ecosystems, while also upgrading or adding Locally Managed Marine Areas (LMMAs). This work will help restore degraded corals and fish populations.

R2R Tuvalu’s project organization structure features a Project Board responsible for major decisions, a Project Implementation Unit (PIU) that leads the direct project efforts, and independent Technical Working Groups supporting each of the four primary project components: (1) National multi-focal area demonstrations in all Pacific Island Countries; (2) Improved Governance for Integrated, Climate resilient land, water, forest

and coastal management; (3) Regional and National/Local Ridge-to-Reef Indicators, M&E and Knowledge Management; and (4) Regional Programme Coordination.



Ridge 2 Reef Tuvalu project organization structure ¹

The goals of the project are to grow and enrich Tuvalu's LMMAs, including Marine Protected Areas (MPAs), by fifteen per cent; develop a centralized Geographical Information System (GIS)-based database on biodiversity, natural resources, and governance systems; implement sustainable practices for land management and agroforestry; address the algal bloom in Funafuti Lagoon; integrate Ridge to Reef (R2R) into national policies and budgets; develop and implement national procedures on knowledge management; and enhance recognition of the project while further developing its capabilities.

¹ "United Nations Development Programme: Country: Tuvalu," *Global Environment Facility*, https://www.thegef.org/sites/default/files/project_documents/PIMS_5020_Tuvalu_R2R_Prodoc_20_April_20154.pdf.



Aside from Component two (see figure), which is limited to just a few of the islands, the R2R project covers all of Tuvalu. It is expected to benefit the capital city's residents, who represent fifty-five per cent of the population, as well as those on the islands of Nanumea and Nukufetau, who will receive water system upgrades and land management efforts. The project also aims to indirectly benefit all of Tuvalu's residents as the gains from enhanced land management, as well as the restoration and protection of coastal resources, begin to accrue.

In looking to protect and restore habitats, the R2R program allows individual countries to direct the use of funding from the System for Transparent Allocation of Resources (STAR), when it aligns with national policies and priorities that, in turn, is in line with the country's international commitments. And the project was designed with an integrated ridge to reef approach, which prior experience has shown to facilitate poverty reduction, sustainability, and the development of capabilities.

GEF funding prioritizes small-scale demonstrations with the latest technologies. The aim is to integrate the technology with traditional knowledge and practices, while providing expertise via reports on (1) coastal system climate variability; (2) coastal hazards and related planning; (3) "blue forests" – coastal and marine ecosystems, including mangrove forests, seagrass meadows, and saltwater marshes – and livelihoods; (4) fishery spatial planning; (5) water security and wastewater management; and (6) land and marine tenure and use, including coastal and marine spatial planning concerns.

The R2R project is designed to bring together a diverse group of stakeholders, including members of a variety of government agencies, non-governmental organizations (NGOs), civil society organizations (CSOs), professional and place-based organizations, and others. The primary stakeholder responsible for executing the R2R project is the Department of Environment (DoE) within the Ministry of Foreign Affairs, Trade, Tourism, Environment and Labour (MFATTEL).

As the agency responsible for planning, policy, and legislation related to the environment, the DoE leads collaboration between Ministries, conservation NGOs, and other partners. The DoE is also working towards the following efforts: (1) stakeholder consultation, including seeking out financial assistance through co-financing programs; (2) project execution, monitoring, and evaluation; (3) information sharing; and (4) sharing best practices and lessons learned with the rest of the Pacific Islands that are taking part in the R2R Program, as well as additional stakeholders at regional, national, and local levels.

Other key government ministries and statutory boards that are directly involved with the project include (1) MFATTEL that leads the National Climate Change Advisory Board (along with the the Ministry of Finance, the Ministry of Natural Resources, the Ministry of Home Affairs and Rural Development, the Falekaupule Trust Fund (FTF), and the Department of Planning and Budget); (2) the Department of Fisheries (DoF); (3) the Department of Agriculture (DoA); (4) the Department of Lands & Survey (DoLS); (5) the Department of Planning (DoP); (6) the Solid Waste Agency of Tuvalu (SWAT); (7) the Public Works Department (PWD); (8) the Department of Education; (9) the Department of Women; and (10) the Office of the Attorney General. Further stakeholders include the local communities and local governments, as well as a network of NGOs, CSOs, international and regional organizations, project donors, and development partners.

Benefits & Lessons Learned

Now in its third year, the R2R Tuvalu project is making progress on multiple fronts. Efforts to implement a whole island planning system (ISP) are in the early stages, but the plan is to integrate the knowledge gained from the R2R project into legislation at the national and island levels as appropriate. Awareness-raising efforts around mainstreaming biodiversity conservation, LMMA, ICM, Sustainable Land Management (SLM), and IWRM started in mid-2016 and are ongoing. Among the community members included in the awareness-raising programs are decision makers, women, men, youths, the disabled, and children.

Upgrades to Geographic Information Systems (GIS) are another area that's seen progress. At the time of the project's 2017 annual report, data had been collected on biodiversity parameters and natural resources, but the database was not yet available. Catch data was being collected by the fisheries department, and



household income surveys were also gathered. The Biodiversity Rapid Assessment (BIORAP) program has collected data for all the islands, and analysis is in progress.

Sustainable land management (SLM) interventions have been introduced on Funafuti, Nanumea, and Nukufetau. These efforts were aiding promotion of food security on those islands. Composting was promoted as an effort to combat the rising salinity and overall depletion of soils. And soil assessments were being collected on the same three islands.

LMMA plans have been drafted, and conservation area management plans are now completed for the northern islands of Tuvalu. Manuals have been developed for a range of project efforts aiming at educating a non-technical audience. The nation's leaders have also accomplished to integrate the R2R approach with Island Strategic Plans (ISPs) for Vaitupu, Niutao, and Nukufetau Island.

The R2R team also managed to raise awareness among a broad group of stakeholders. Training on monitoring was provided to communities of both women and men, kaupule (Island Councils), island leaders, youths, and students. The R2R team also began the work to develop an e-library as a point from which to share information from the project. Social questionnaires were distributed to capture requirements from both stakeholders and the general public. Finally, the project team managed to complete their first newsletter in Q3 2017. The newsletter was translated into local languages and sent out with the intent of reaching all levels of the community.

Opportunities & Next Steps

The project will run for a couple of more years and most areas of interventions have been depicted. The project team has identified the need to revegetate degraded lands with local hardwoods. Doing so will contribute positively to food security on the islands of Nanumea, Nukufetau and Funafuti where the intervention is planned to take place.

Tuvalu is drafting the IWRM, and is working towards an assessment framework that integrates land and sea management issues and either an ICM policy or planning principles for related efforts. Plans for MPAs will also be created and future project will be designed to systematically integrate learning practices on community-based biodiversity and the management of land and marine-based resources.

Tuvalu has made much progress through the R2R project, also thanks to a strong political commitment. Tuvalu's Prime Minister, Honourable Enele Sosene Sopoaga, states this case clearly: "Protection of biodiversity is protection of life. What we do on land impacts our coral reefs – there is a clear connection. I will do all I can to protect our biodiversity."

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