



Mainstreaming a Ridge to Reef Approach for Sustainable Development in the Pacific

A Practitioners' Guide

The Niue Coast © Moka Ioane



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CONTENTS

Abbreviations	iv
List of Figures	v
List of Tables	v
Acknowledgements.....	vi
Executive Summary – the Practitioners’ Guide.....	1
Introduction.....	5
Objectives and Users of the Guide	8
Mainstreaming the R2R Approach with the Practitioners’ Guide.....	10
The Guide’s Support to Programme-Based R2R Mainstreaming	12
Embedding the R2R Success Factors in the Six Sub-Guides	16
Recognising the Inter-Relatedness of the Six Sub-Guides as Guide for R2R Mainstreaming.....	22
The Set of Practitioners’ Guide for R2R Mainstreaming.....	23
Sub-Guide 1 (SG 1) – Data Gathering, Mapping and Analysing the Benefit Flows of Land-Sea Forms in Support of R2R Mainstreaming Strategies.....	23
Sub-Guide 2 (SG 2) – Identifying Relevant R2R Institutions and Establishing Governance Bodies for Steering, Directing, Supporting Policy Development, Planning and Implementing R2R Strategies at the Site, Sub-National and National Levels	39
Sub-Guide 3 (SG 3) – Developing Strategies for Advocating R2R Policies and Programmes at the National, Sub-National and Site Levels	58
Sub-Guide 4 (SG 4) – Developing and Implementing Social Marketing Strategies for Target R2R Communities	72
Sub-Guide 5 (SG 5) – Preparing, Legitimising and Seeking Approval of R2R Plans at the Site, Sub-National and National Levels	85
Sub-Guide 6 (SG 6) – Mobilising, Organising, Orienting and Strengthening the R2R Implementing Units.....	100
Summary of the Guide for R2R Mainstreaming in PICs	108
References	110
Annex A. Recommended R2R Mainstreaming Strategies in PICs	112
Annex B. Definitions of Major Terms and Phrases Used in the Guide	122

ABBREVIATIONS

CDA	Choice, decision, action
CSO	Civil society organisation
CROP	Council of Regional Organisations in the Pacific
EGS	Ecosystem goods and services
ELMA	Efate Land Management Area
ENR	Environment and natural resources
ENRM	Environmental and Natural Resource Management
FSM	Federated States of Micronesia
FGD	Focus group discussion
FAO	Food and Agriculture Organization
GESI	Gender Equality and Social Inclusion
GEF	Government Environment Facility
IEC	Information, education, communication
ICM	Integrated Coastal Management
IWRM	Integrated Water Resources Management
IMC	Inter-ministry committee
IW	International Waters
IW R2R	International Waters Ridge to Reef Project
KII	Key informant interview
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
M&E	Monitoring and evaluation
MEL	Monitoring, evaluation, and learning
NEPC	National Environmental Protection Council
NGO	non-governmental organisations
SPC	Pacific Community
Pacific IW R2R	Pacific International Waters Ridge to Reef Project
PIC	Pacific Island country
PCS	Palau Conservation Society
EPCU	Palau Environmental Planning and Coordination Unit
MNRET	Palau Ministry of Natural Resource, Environment and Tourism
PES	Payments for ecosystem services
POI	Point of interest
PESTLE	Political, environmental, social, technological, legal, and ethical
PROD	Production area
PCA	Protection and conservation area
RPCU	Regional Programme Coordinating Unit
RAA	Responsibilities, accountability, and authority
R2R	Ridge to Reef
SMART	Simple (or specific), measurable, achievable, realistic, and timely
SM	Social marketing
SWOT	Strength, weakness, opportunity, and threat
SG	Sub-Guide
TRCA	Tagabe River Catchment Area
TRMP	Tagabe River Management Plan
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCC	United Nations Framework Convention on Climate Change
VMGO	Vision, mission, goal, objective

LIST OF FIGURES

Figure 1. Suggested flow of programme-based R2R mainstreaming.....	13
Figure 2. Diagram for Carrying Out the Spatial Analysis for Mainstreaming R2R in PICs	28
Figure 3. Polygon-on-Polygon Overlay Geometric and Attribute Table Result	29
Figure 4. Map Inputs for the Union Tool.....	30
Figure 5. Simplified sample overlay of biophysical map layers and resulting map	30
Figure 6. Sample Polygon-on-Polygon Overlay Attribute Table Result	31
Figure 7. Sample Polygon-on-Polygon Overlay Attribute Table Result	31
Figure 8. Sample Polygon-on-Polygon Overlay Attribute Table Result	32
Figure 9. Sample point-in-polygon geometric and attribute table result	35
Figure 10. Suggested Framework for Developing an Advocacy Plan on R2R Mainstreaming (USAID 2016, Chen et.al. 2014)	60
Figure 11. Implementing the R2R Mainstreaming at Selected Level	79
Figure 12. Iterative process in developing a social market mix for target adoption of desired behaviors by target communities.....	81
Figure 13. Implementing the R2R Mainstreaming at Selected Level	103

LIST OF TABLES

Table 1. The R2R success factors and how they are embedded in the six sub-guides	18
Table 2. R2R mainstreaming sub-guides and the possible uses of the outputs in various activities.....	20
Table 3. List of Spatial Data That Will Be Used in Situational Analysis	26
Table 4. Suggested subcategories of management zones	32
Table 5. Overall Summary of the broad land use categories and subcategories.....	33
Table 6. EGS users.....	34
Table 7. Format of the attribute table of the infrastructure data	36
Table 8. Policies governing the area/ecosystem/landscape/seascape/seascape-landscape formation...	42
Table 9. Challenges and opportunities in implementing ENR and other EGS-relevant laws	42
Table 10. Policy gaps in sustainable management of EGS	43
Table 11. Relevant policies guiding the CDAs that govern EGS/ENR assets.....	43
Table 12. Summary findings A	44
Table 13. Summary Findings B.....	44
Table 14. Existing programmes and projects to sustainably manage the EGS	45
Table 15. Programme gaps in sustainable management of EGS.....	45
Table 16. Power and influence analysis.....	65
Table 17. Knowledge, position and interest analysis.....	66
Table 18. Guide to Messaging: Audience and Appropriate Content and Format of Messages	67
Table 19. The Marketing Models: The 4Ps, 4C, 4As in a Nutshell.....	78
Table 20. Sample table for determining impacts of R2R strategies on-and off-sites.....	98

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EXECUTIVE SUMMARY – THE PRACTITIONERS' GUIDE

The Guide is aimed at supporting efforts to carry out programme based R2R mainstreaming at the national, sub-national and site levels. The guide broadens the knowledge of, and equips key officials and staff of development organisations, actors of relevant sectors, project teams, advisors and consultants, researchers, academicians, NGOs, and media groups, in mainstreaming R2R. The guide also uses three strategies of ridge to reef (R2R) mainstreaming in Pacific Island countries, namely: (i) scaling up R2R mainstreaming advocacy and social marketing campaigns, (ii) replicating participatory integrated R2R planning, and (iii) replicating R2R implementation of approved integrated R2R plans.

The Guide, with its six sub-guides, hopefully helps simplify the complexities of the R2R approach with doable processes, steps, tools, and techniques for translating the strategies into reality.

Following a programme-based approach to R2R mainstreaming, the key steps are (see Figure 1):

MAPPING and SPATIAL ANALYSIS – GOVERNANCE and ADVOCACY

1. Organise top level pro-R2R advocates in each country to orient on, and communicate, the importance, benefits, and possible trajectories of R2R mainstreaming to ensure that the management of key ecosystems under current erratic weather conditions, existing policies, and flux of use and demand for their ecosystems goods and services (EGS), can balance the need for protection and conservation versus socio-economic development at various levels – R2R sites, sub-national and national. The top-level advocates may be composed of key government officials, scientists, donor representatives, civil society groups, community leaders and representatives from the users and consumers of EGS. The organisers may come from passionate and informed national, sub-national, local and community leaders who realise the need for integrated programmes that will address the negative impacts of degraded ecosystems, their capacities to supply EGS, erratic weather conditions, and socio-economic conditions of marginalised communities.

To render the R2R mainstreaming strategies effective, each country needs the buy-in of policy and decision makers who are the “gate keepers” of power and resources that support actions – coordination, complementation, collaboration, investments, regulation, development – at the national, sub-national (state, province, or island) and site levels. R2R outputs and outcomes result from the strong buy-in of the lowest affected level of governance units and communities (most inclusive subsidiary unit). At the national and sub-national levels and sometimes even at the community level, key development partners and donors can influence the choices, decisions and actions of policy and decision makers towards R2R mainstreaming. The Sub-Guide (SG) 1 (Mapping and Spatial Analysis), SG 2 (Policies, Institutions and Governance Processes), SG 3 (Communication and Advocacy) and to a certain extent, SG 4 (Social Marketing) can help the experts and the advocates prepare audience-appropriate briefing materials for advocacy and discussion sessions with key sectors and players at the national and sub-national levels, to reframe their orientation towards R2R. SG 4 is important if the top-level advocates need the initial feedback of selected partner communities with respect to R2R mainstreaming.

SECURING BUY-IN and COMMITMENTS

2. With buy-in of national, sub-national and local stakeholders, including target communities, and the support of development partners, donors, and even regional bodies such as the Council of Regional Organisations in the Pacific (CROP), the next step is to facilitate securing their commitments into formal issuances such as executive orders or letters of instruction or protocols for the relevant sector to start the process of the programme-based R2R mainstreaming. Lead agencies with mandates related to, and consistent with, R2R and the ecosystems to be managed, may be designated to engage key stakeholders and advisers with technical support staff to start the preparatory activities using SG 1, SG 2, SG 3, and SG 4, with the intent to assess the most appropriate scale of R2R mainstreaming in each PIC.

COMMUNICATION and SOCIAL MARKETING

3. To ensure that key sectors, stakeholders, and even communities reach a shared understanding of the R2R approach, and the mainstreaming strategies, more organised communication, advocacy, and social marketing campaigns may be carried out to secure endorsements and commitments and generate a set of demand-driven agenda for consideration in the mobilisation and inception phase of R2R mainstreaming. Outputs of SG 1, SG 2, SG 3, and SG 4 may be further reviewed, validated, and affirmed with communities to ensure buy-in from grassroots stakeholders.

PREPARE PLAN – PARTICIPATORY PROCESS

4. With the chosen scale, commitments, and endorsements of the stakeholders, the R2R mainstreaming may move towards the participatory planning phase with guidance from SG 5 and outputs of SG 1, SG 2, SG 3, and SG 4. The R2R plans will ensure that R2R interventions from both sector- and collectively-implemented activities with the local stakeholders reflect the major uses and threats to ecosystems and EGS, considering synergies, complementarities and externalities surfaced by spatial analysis, priorities of relevant sectors, existing plans, needs of communities, projected market demands, available human and financial resources, and barriers to achieving the desired outputs of the R2R strategy in the planning unit. Deciding the scale will input into the logical phasing of what sub-scales to prioritise in sequence over time, programmatically, in case not all the desired ecosystems may be managed at the same time.

APPROVAL OF PLAN

5. Complete the plan and seek approval and/or endorsements of various governance/steering bodies at the community, sub-national and national levels. The donors may approve the R2R plan, but this is best based on the buy-in of target communities, sub-national and national government leaders, and key players.

IMPLEMENTATION

6. With the R2R plan approved and when resources are made available, implementation may begin at various levels depending on the chosen scale of mainstreaming. Site level mainstreaming may have limited engagement with players at higher level of governance but may need the strong support from sub-national units and field offices of national technical line agencies, NGO partners, the private sector, and regional organisations. SG 4 provides key steps and processes for the effective and collaborative implementation of the approved R2R plans.

MONITORING and EVALUATION

7. Mainstreaming requires a knowledge-managing, accurate and updated database of R2R key performance indicators to ensure that periodic progress monitoring and evaluation provide both quantitative and qualitative temporal, spatial and other evidences of improvements for the analysis, synthesis, filtering of lessons learned with key players, and for the adaptive formulation of recommendations to improve R2R policies and programmes of relevant sectors, mechanisms for coordination and oversight, governance processes for collaboration and complementation, delivery of support and services for ecosystems and EGS protection, restoration, development and regulatory governance. Key lessons from the mainstreaming can also be used to improve the cyclic programme based R2R (re) planning and implementation, enhancements and updating of the sub-guides, and direction or coordination of research and development, and capacity strengthening programmes.

IMPORTANT CONSIDERATIONS

- ✓ Site level integrated planning and implementation is key to realising and demonstrating the synergistic positive impacts of the R2R approach under the mainstreaming strategies.
- ✓ The Guide with its Sub-Guides is intended for facilitating/assisting users to systematically “LISTEN” to the local stakeholders, those who have choice (some with no choice) and are “staking” their livelihoods, enterprises, safety and security, their future and lives on the inherent capacity of the ecosystems to supply their EGS needs”.
- ✓ Gender equality and social inclusion concerns must be mainstreamed into all aspects of R2R work through timely interactions, participatory consultations and discussions with women, men, youths, elders, and other vulnerable populations who not only use resources but depend on these resources for their future livelihoods.
- ✓ The guide is prepared as a result of the current testing project, the experiences and lessons learned form the basis for preparing this guide to mainstream R2R. The Guide with its Six Sub-Guides is expected to be implemented at all levels of the programme-based approach for carrying out R2R mainstreaming. Using the guide in future R2R investments is the focus and with the opportunity to review and change the guide further.
- ✓ Where needed, the guide supports a series of “training-exercises followed by field work, and coaching activities” to help develop and/or strengthen local capacities, provide on-the-ground learning for key processes, and help visualise how the outputs of SGs could serve as major inputs in the programme-based approach to R2R mainstreaming.



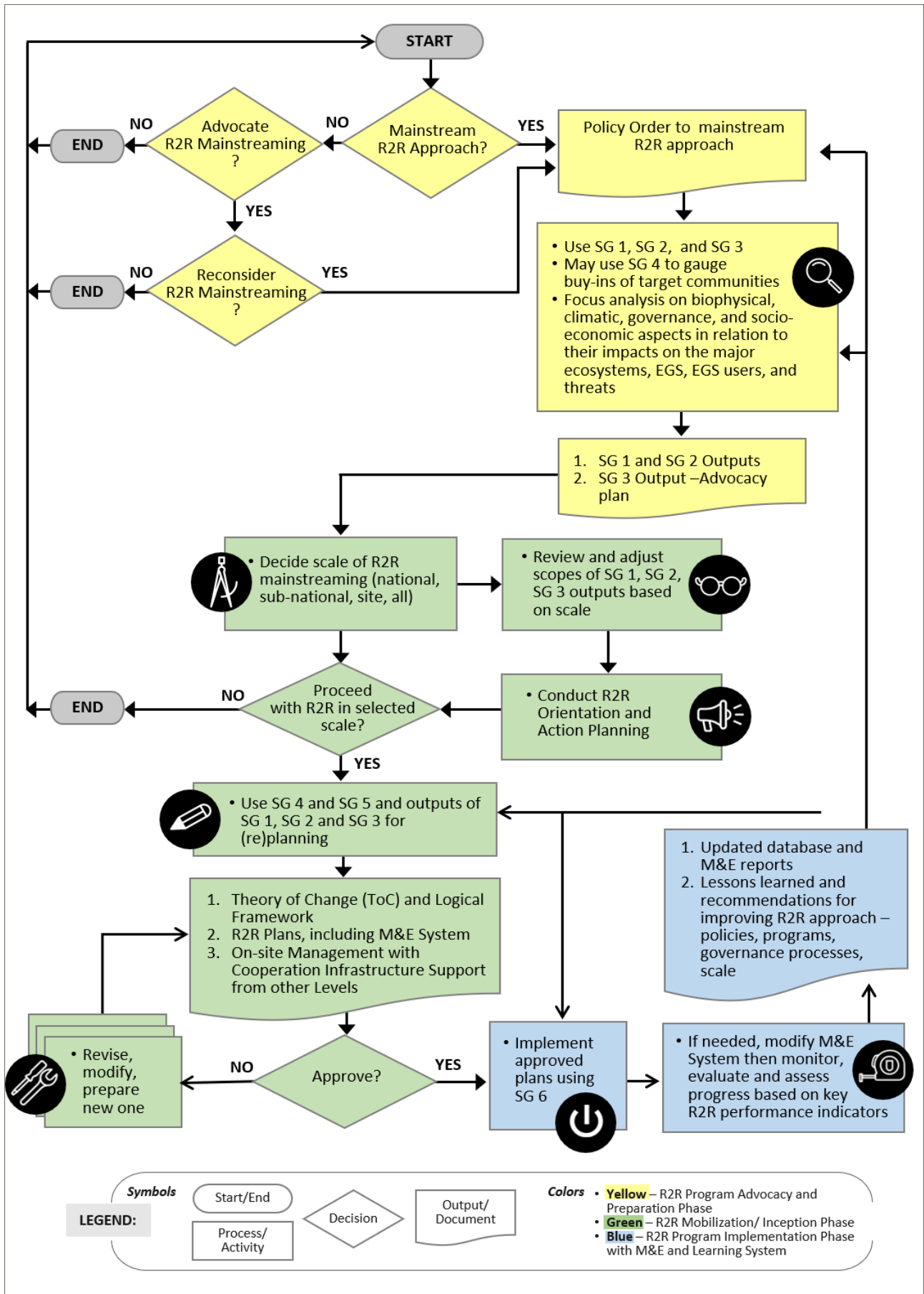


Figure 1: Suggested flow of programme-based R2R mainstreaming.

INTRODUCTION

Over the years, the Pacific Island countries have continued to experience increasing threats to the inherent capacities of their environment and natural resources to maintain healthy and resilient ecosystems that ensure sustainable supply of beneficial ecosystems goods and services (EGS). Past volcanic geological events resulted into combinations of land-sea forms in high uplifted limestone, low-lying coral island, and atolls. In this environment, communities over the years have developed culture and practices with close links and relations with their environment and natural resources, climatic conditions, key ecosystems and the various EGS that they provide. Through time, the dynamic interplay of ecosystems functions, processes, edaphic and climatic factors in closely inter-connected and inter-dependent ecosystems in terrestrial, freshwater, and coastal and marine areas led to the gradual emergence of high biodiversity in both flora and fauna. Resource valuations point to forest, coastal and marine, and freshwater ecosystems, as well as agricultural systems as contributing the most benefits to the environment and communities. The main beneficial EGS are water, soil for agriculture, minerals (metallic and non-metallic), fisheries, unique attractions for recreation, forest products (timber and non-timber), wildlife, medicines, and indirect regulating and supporting services such as pollination, water and climate regulation, buffering, maintaining ecological balance, and the like.

Increasing encroachments in conservation areas, growing urbanisation, degradation and loss of habitats, declining soil productivity, overexploitation, pollution and contamination of freshwater and marine waters, and the disastrous impacts of erratic weather conditions are gradually endangering the resiliency and ecological stability of island ecosystems to withstand negative externalities and restore their capacities to function properly. This is critical especially for isolated small islands given their limited absorptive and carrying capacities and high susceptibility/vulnerability to the impacts of climate change. Delicate consideration and balance in allowing/disallowing land and resource uses of EGS and in instituting regulatory governance and resource management measures in each type of land-sea form could make or break local, sub-national and national economies.



Protecting coastal communities, Vanuatu International Waters Ridge to Reef Project Rapid Coastal Assessment survey team in action. Photo by Ethan Gabriel (Havilah Enterprise)

Pacific Island countries together with Australia and New Zealand, the UN, international organisations, and some developed countries have recognised the fragility and importance of small islands, their vulnerability to natural and human-induced disasters, including those that result from improper land and resource uses, urbanisation, pollution, and overexploitation. Institutional capacities, however, vary especially in regulatory governance-related enforcement, compliance, and resource management, which have been partly supported by development partners and international community. The Pacific Island countries are indispensably significant from the perspective of their unique locations, navigation, peace, and security, understanding climate change, biodiversity, and international waters. Each Pacific Island country offers opportunities to put in place systems where ethnic communities, strongly bound by their culture and traditions and socially rooted relations with the environment, could develop resiliency against the hazards of erratic weather conditions, amid changing local and national economies, and growing political and economic interests of developed countries.

The Pacific islands region remains a ‘special case’ with its own unique characteristics and vulnerabilities. With a range of domestic sector priorities, governance-based integrated resource management approaches can play significant roles in ensuring national and economic security, and even the survival of local populations impacted by extreme natural disasters including climate change. The PICs major comparative advantages in relation to export to other countries largely hinge on their potential to increase agricultural productivity, improve tourism-related goods and services, and sustainable use of natural resources¹.

Considering the above, the Pacific Community (SPC) and United Nations Development Programme (UNDP) supported integrated resource management initiative in various land-sea forms under the GEF Pacific Ridge to Reef (R2R) programme². The programme covers the focal areas of biodiversity, climate change adaptation, climate change mitigation, land degradation, sustainable forest management, and international waters. The initiative builds from the earlier lessons and experiences of the GEF Pacific Integrated Water Resources Management (IWRM) Project.

The GEF Pacific R2R programme *“aims to maintain and enhance PICs ecosystem goods and services through integrated approaches to land, water, forest, biodiversity and coastal resource management that contribute to poverty reduction, sustainable livelihoods and climate resilience”*. It *“embraces the interconnections between the natural and social systems in a whole of island approach from the ‘ridges’, through coastal watersheds and habitats, and across coastal lagoons to the fringing ‘reef’ environments”*³.

The GEF Pacific R2R programme recognizes the value of anchoring the R2R approach to PICs’ geology, climate, biodiversity assets, major EGS and the opportunities they offer as well as their threats, and on- and off-site stakeholders’ priority essentials that support livelihoods and cash economies including the customary or traditional laws and practices of communities. But there is also the acknowledgment of the complexity of the R2R approach especially its *“wide-ranging environment management and governance architecture”*. It recognizes the challenges in planning and integrating national and sector policies into doable, coordinated, collaborative, complementary integrated frameworks; in establishing governance-based implementation arrangements and local policy development; and in setting up financing requirements to sustain R2R initiatives. There is also the need to consider environmental and social safeguards that consider the diversity of Pacific Island countries and the practices, local traditions, existing institutions and mechanisms and governance structures. Social safeguards demand the inclusion of stakeholder engagement plans that are inclusive and within the social norms and expectations of countries including Gender Equality and Social Inclusion (GESI) and gender mainstreaming into project activities.

1 Chen et al. 2014

2 UNDP/GEF SPC/CPS. 2015. Ridge to Reef - Testing the Integration of Water, Land, Forest & Coastal Management to Preserve Ecosystem Services, Store Carbon, Improve Climate Resilience and Sustain Livelihoods in Pacific Island Countries (Project Document); Approved MYCWP/Updated Logframe of IW-R2R Projects. The Document states that: “The purpose of the project is 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 piloted local actions to sustain livelihoods and preserve ecosystem services. This regional project provides the primary coordination vehicle for the national R2R STAR Projects that are part of the Pacific R2R Program, by building on nascent national processes from the previous GEF IWRM project to foster sustainability and resilience for each island through: reforms in policy, institutions, and coordination; building 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. This project will also focus attention on harnessing support of traditional community leadership and governance structures to improve the relevance of investment in ICM, including MPAs, from ‘community to cabinet’.

3 Project documents and Regional Communications Strategy for the GEF Pacific Ridge to Reef Programme (2016).

The R2R approach emphasises the collaboration and participation of key stakeholders⁴ in developing national, sub-national and site level “integrated multi-sectoral” frameworks and/or plans that would serve as a road map for managing institutional and financial resources to achieve goals and objectives. In the PICs, the frameworks and/or plans⁵ need to reflect priorities and balance to ensure healthy environment and pursuit of sustainable economic development with adequate safeguards. The PICs agree with the fundamental benefits of R2R’s holistic and integrated approaches, but a few are choosing options with short term gains through indiscriminate exploitative means especially in the mining, forestry, and fisheries sectors. With adequate safeguards, it is plausible that under dire circumstances, sector approaches may offer quick ‘fixes and solutions especially in situations where exploitation is deemed to be the top contributors to the GDP of those PICs with weak and vulnerable economies.

Accordingly, both the IW Regional R2R and STAR projects have initiated pilots to reduce environmental stresses and sustainably conserve and manage ecosystems and their EGS, through mainstreaming of R2R strategies and corresponding implementation of various conservation-link techno-socio-economic packages and activities. The IW Regional R2R project was specifically launched as an initiative to “test R2R mainstreaming” in PICs. The R2R strategy has been localised and described as the ‘community to cabinet’ approach. It encompasses collaboration and networking through various governance layers at communities, sub-national and national government levels plus other private sector groups with a GESI (Gender Equality and Social Inclusion) approach. GESI approach ensures the participation of all sectors of a community including women and vulnerable groups.

The Regional R2R and the STAR projects have generated valuable lessons learned in planning and implementing R2R strategies in selected sites. These lessons offer “what worked, what did not work, what partly worked, how and why”. They are potential sources for identifying innovations, strengthening institutional capacities, deepening policies and governance processes, clarifying linkages between EGS with EGS users and consumers, promising technologies and practices, and sourcing and directing funds for R2R mainstreaming⁶. These learnings are benchmarks for mainstreaming the R2R approach via replications and scaling up modes in other land-sea or ridge to reef forms such as watersheds in large islands from uplifted limestone origins, catchments, islands and atolls, inland waters (such as lakes), and coastal and marine areas. These learnings could also be useful in biophysically- or legally defined protected sites and their surrounding area, defined political units, or large customary-owned land-sea forms.

Moving towards R2R mainstreaming, however, requires the continuing process of transitioning from sector-based towards multi-sector complementation, coordination, and collaboration to achieve common goals, and this does not come easily. Mainstreaming may need a phased approach as it takes time to align policies and governance processes in support R2R strategies, processes, and various interventions. It also demands more focused initiatives to shift towards science-based policies and community-supported management of land, water and resource uses in each land-sea area. Time is also requisite to observe the long-term impacts of R2R investments to improve resiliency and inherent capacities of biodiversity assets in providing EGS to immediate communities.

4 Stakeholders generally refer to “on- and off-site communities, sub-national and national governments, sectoral agencies, private sector groups whose operations depend on ecosystems goods and services and priority development aspirations and needs”

5 As stated by RPCU, this narrative is highly supported and implemented at different levels (CROPs, SPREP, SPC, FFA; and national and sub-national government authorities).

6 Drucker 1985.

OBJECTIVES AND USERS OF THE GUIDE

This guide was prepared to help the PICs mainstream the R2R strategy building on their current policies and programmes, existing capacities, experiences with R2R-related projects, and willingness to integrate sector initiatives to achieve synergistic outcomes. It supports the process of carrying out the three recommended R2R mainstreaming strategies for PICs and is shown below:

1. *Scaling up R2R mainstreaming of advocacy and social marketing campaigns based on results of comprehensive analysis and unifying message of optimising benefit flows from ecosystems of PICs' land-sea areas;*
2. *Replicating participatory integrated R2R planning with envisioned R2R benefit flows at the local, sub-national and national levels; and*
3. *Replicating R2R implementation of approved integrated R2R plans to realise the R2R benefit flows at the local, sub-national and national levels.*

This guide emerged from the review of emerging best practices and lessons from various R2R-related frameworks, PICs' unique bio-geophysical and climatic features, policies and governance processes, and lessons learned from the planning and implementation of IWRM, GEF IW R2R and STAR projects. It intends to "guide" the PICs in carrying out the three recommendations on how they can mainstream the R2R approach at the site, sub-national and national levels⁷. There are six (6) inter-related sub-guides (SGs) in this guide, termed as "Practitioners' Guide for R2R Mainstreaming in PICs". As discussed further, the SGs are designed for the programmatic approach to R2R mainstreaming – from preparation, mobilisation, and implementation with or without external donor and development partners – regardless of the scale of mainstreaming. The six sub-guides are as follows:

1. *Sub-Guide 1 – Data Gathering, Mapping, and Analysing the Benefit Flows of Land-Sea Forms in Support of R2R Mainstreaming Strategies*
2. *Sub-Guide 2 – Identifying Relevant R2R Institutions and Establishing Governance Bodies for Steering, Directing and Supporting Policy Development, Planning and Implementing R2R Mainstreaming Strategies at the Site, Sub-National and National Levels*
3. *Sub-Guide 3 – Developing Strategies for Advocating R2R Policies and Programmes at the Site, Sub-National and National Levels*
4. *Sub-Guide 4 – Developing and Implementing Social Marketing Strategies for Target R2R Communities*
5. *Sub-Guide 5 – Preparing, Legitimising and Seeking Approval of R2R Plans at the Site, Sub-National and National Levels*
6. *Sub-Guide 6 – Mobilising, Organising and Strengthening R2R Site Project Management Units for Implementation*



Drone pilot from Ministry of Lands and Natural Resources capturing images of identified hotspot at Kolovai village, Tongatapu, Tonga. Photo by Tonga IW R2R Project



Women collect water - Majuro, Republic of the Marshall Islands. Photo by Fononga Vainga Mangisi-Mafileo

This guide is designed for the use of natural and resource management practitioners including policy and decision makers, R2R planners and implementers, advocacy groups like civil society organisations and media, private sector groups especially those who directly or indirectly benefit from the supply of EGS for their business operations, technical advisors, trainers, academicians, and technicians. For the national oversight bodies and regional organisations such as the CROP agencies, development partners and donors, the guide provides a broader view of how the “givens” in PICs – bio-geophysical and climatic features and R2R-related policies, institutions, and governance processes – may be considered in their strategic plans. Further, development partners and donors may use the guide in their programme preparation, mobilisation, and implementation especially in positioning and prioritising their R2R assistance, directing complementary and collaborative activities, and selecting partners among resource institutions. The guide could help reduce overlaps of the R2R interventions at the national, sub-national and site levels and address the balance between conservation and socio-economic development for sustainability and resiliency.

This guide is NOT a detailed manual for planning and implementing R2R mainstreaming. It provides a road map and suggests generic steps on how users could design activities that will enable them to carry out the R2R mainstreaming strategies. It can also be a technical reference material to focus the development of briefing materials, training modules, subjects of existing curricula, topic manuals and exercises, and implementing guidelines that will serve the following purposes:

- Gathering and analysing spatial and non-spatial data for advocacy and social marketing communication campaigns, R2R planning and implementation, research and development, environmental impact assessments (EIA) and M&E systems;
- Establishing and/or strengthening protocols, governance bodies and institutional arrangements for coordination, collaboration and complementation in policy development, policy implementation, oversight, steering and regulatory measures at the national, sub-national and site levels;
- Communicating and advocating R2R mainstreaming strategies to policy and decision makers, donors, partners, and other groups;
- Applying social marketing principles in developing R2R communication campaigns for on- and off-site communities in specific land-sea forms⁸;

7 Guiang et al. March 2021

8 This phrase is used extensively in this Guide in generic form for different types of R2R sites – watershed, catchment, atolls, small islands. It is premised on the inter-connectivity and linkages of biological diversity in range of ecosystems from land to sea or ridge to reef and beyond to open ocean. The identified boundaries of the land-sea form or continuum may be different if determine based on biophysical (catchment, island, atoll) or legal parameters (political unit). A land-sea form may be located in several political units such as municipalities and villages. Assessments including those of environment threats holistically are carried out along the land-sea continuum.

- Designing and carrying out applied and basic R2R-related research and development;
- Designing and carrying out modular R2R-related training programmes (curricular and non-curricular) for project technicians, government and NGO technicians, community leaders, private sector, and policy makers;
- Orienting and briefing project specialists, advisors, players in the “conscience industry” including academic and training institutions;
- Filtering promising tools and techniques for strengthening protection, conservation, restoration, and development of proper zones in R2R sites; and
- Incorporating social and gender concerns during assessments and in embedding in the process of developing R2R mainstreaming plans and implementation.

The next sections discuss the programmatic mainstreaming of R2R approach in PICs considering the guide’s six-sub-guides. This is followed by discussions of each sub-guide which includes suggested steps, processes, and outputs for the users. Annex A provides detailed discussion of the three recommended R2R mainstreaming strategies in PICs. Annex B offers definitions of major terms that are mentioned in the guide.

MAINSTREAMING THE R2R APPROACH WITH THE PRACTITIONERS’ GUIDE



Tonga Member of Parliament and former Minister of Agriculture, Food and Forestry Losaline Ma’asi discusses Tonga IW R2R Project Results and Lessons Learned during stakeholder consultation meeting, Nukualofa Tonga (August, 2021). Photo by Tonga IW R2R Project

As mentioned above, the three recommended strategies for mainstreaming the R2R approach in PICs were anchored on the emerging best practices and key features of R2R-related frameworks and experiences⁹, analysis of the bio-geophysical, climatic features and policy in PICs, and lessons learned from completed and ongoing R2R initiatives in PICs. The lessons learned and emerging practices from other countries are the initial building blocks in mainstreaming especially in identifying and determining next set of “innovations either for replication or scaling up” interventions (Drucker 1985, USAID 2016, Korten 1984). The three mainstreaming strategies are unified with the message of: *“Optimising benefits of R2R mainstreaming by ensuring that natural capital (ecosystems and the EGS they provide) are sustainably transformed into environmental, economic and financial assets based on governance-oriented, holistic, inclusive, sustainable and resiliency-focused processes”*.

In this guide, mainstreaming R2R is defined as the *“process of embedding R2R approach and processes into national, sub-national and community policies, strategies, programmes and practices to ensure that the ecosystems and EGS in various land-sea formations in PICs are maintained and enhanced to help reduce poverty, sustain livelihoods and build up climate resilience”* (formulated based on Huntley and Redford 2014¹⁰, and IW-R2R Project Document 2016¹¹). The three recommended R2R mainstreaming strategies focus on interventions that may include a mix of:

- a) Governance systems by improving R2R-related policies (legislative and administrative as forms of statutory policies; and customary), strengthening institutions, and improving R2R-related governance processes (steering, oversight, coordination, compliance, and enforcement) at the national, sub-national and site levels to ensure that the shared understanding about the R2R strategy follows a path down to where the actions matter not only to the ecosystems but also to communities;
- b) R2R planning at all levels including programming; prioritisation based on global, national, and local commitment, threats to ecosystems, and constituent needs; and delivery of support systems including financing to policy implementation and policy development; and
- c) Policy implementation at national, sub-national and site implementation in support of protection, conservation, restoration, development, establishing functional and sustainable governance processes at all levels, sourcing, and diversifying fund sources, applying sound financial management practices, capacity building, leveraging, networking, database and M&E and feedback systems to improve policies, programmes, and delivery systems.

Two forms of R2R mainstreaming are recommended in PICs. These are the replicative and scaling up types. For R2R-related advocacy and social marketing campaigns, scaling up these activities is critical to gaining broader awareness and understanding of the need for integrated inter-sectoral approach to balancing protection and conservation and socio-economic development during worsening climate- and human-induced disasters that are of concern in small island countries. Given the limited experiences and lessons from the demonstration sites, the recommended mainstreaming for R2R planning and implementing site, sub-national and national level R2R strategies is the replicative type. In both types, gender mainstreaming and social inclusion are embedded into models, measures, interventions, processes, and practices to be replicated or scaled up.

The replicative type of mainstreaming is applying the same features of pilot-implemented measure and/or modifying some features of an emerging effective R2R intervention in adjacent areas, and similar biophysical, climatic, and socio-economic settings. Replication implies that if an intervention during the piloting phase is effective – has contributed towards the attainment of a defined objective i.e., improve forest cover, reduce wastewater pollutants, protect biodiversity, increase biomass of sea grasses and fisheries, protect the coral reefs – then it is worth replicating as an intervention. Being effective, however, does not mean efficient – able to achieve objectives but not necessarily at the lowest cost possible¹². Thus, in most cases only those effective interventions (similar copies or modified ones) may be replicated with the intention to determine efficiency by improving or simplifying the technology, processes, technique, or tool to reduce per unit cost.

When R2R interventions are effective but remain largely dependent on consultants with or without external funding, they are not generally considered efficient except when the need arises for consultants or experts to carry out highly specialised or unique operations and processes such as those related to biological assessments, modelling climate change, conducting specialised research activities and similar undertakings.

9 See further Sayer et al. 2012, Huntley and Redford 2014, Bonita 2021

10 Huntley and Redford 2014.

11 Ibid

12 Korten 1980, Guiang 2012

Mainstreaming assumes that the measures, interventions, or processes have been tried and found or observed to be effective and/or efficient before replication or scaling up.

The *scaling up* type of mainstreaming aims to increase the impacts of effective and efficient R2R interventions or measures in larger geographic area, broader socio-economic conditions, and institutional scales (modified definition from the IW R2R Project Document 2016; Korten 1984). The assumption is that impacts are better achieved with effective and efficient interventions with broader reach. Scaling up effective but inefficient interventions implies waste of precious human, institutional and financial resources. Thus, it is advised that only effective and efficient R2R measures, practices and processes may be scaled up to ensure that resources are well spent. There is tragedy or huge loss of resources when effective measures and approaches are immediately scaled up. The opportunity costs run high especially in developing countries where there may be better uses of limited resources. The ideal situation is scaling up measures requiring low input but resulting in high impacts. There might be instances, however, when scaling of interventions even with undetermined efficiency is carried out to further test their effectiveness in a larger scale especially in situations where there have been changes in government priorities or occurrence of disasters. Under these conditions, risks are assessed and properly acknowledged. Scaling up requires supportive policies, programmes, governance processes, more capacitated human resources, and sustainable and adequate financing. In many cases, scaling up also takes time.

For both the replicative and scaling types of R2R mainstreaming, the major tools, processes and techniques include communication, advocacy, behaviour change campaigns at all levels, including popularising the results of scientific studies into audience-appropriate campaign materials; establishing local, sub-national, national, regional and international networking systems; establishing governance bodies to improve coordination and oversight; spatial-driven analysis for advocacy, improving governance systems, R2R planning and implementation; research and development; extension and curriculum development; capacity building; gender and social inclusion; and support for the replication and/or scaling up forms of mainstreaming R2R.

Each PIC may need to define its own R2R agenda for mainstreaming based on deep understanding of the strategy's benefits, existing R2R-related policies and programmes, mandates of institutions, major threats to ecosystems and the supply of EGSs, and the challenge of moving forward with coordinated policy development, implementation, programme design, and delivery of support activities and investments to target sub-national and sites that balance conservation and development. Mainstreaming implies a programmatic R2R approach. Risks are normally reduced with the support of development partners and donors, regional bodies such as CROP agencies. Although R2R mainstreaming builds on each of the country's capacities, policies and programmes, a programmatic innovation at the national and/or sub-national levels is strengthened with regional and international anchors and oversight. Moreover, the R2R mainstreaming efforts must consider the absorptive capacities and willingness of various target constituent groups – EGS users and consumers including farmers, fisher folks, urban communities, businesses, institutions, academe, media. The push for integrated conservation-based development via the R2R approach must clearly be linked to science-based and community-supported strategies to mitigate the impacts of disasters, improve farm and coastal productivity, sustain livelihoods, access clean water and environment, boost tourism, diversify local economies by building on comparative advantages, and improve regulatory governance processes.

THE GUIDE'S SUPPORT TO PROGRAMME-BASED R2R MAINSTREAMING

The R2R Mainstreaming Guide has six sub-guides. Each sub-guide is envisioned for use at various points of R2R mainstreaming starting from programme preparation to mobilisation/inception, and then to implementation. This is shown in Figure 1 (in page 10 and presented below).

SG 1, SG 2, and SG 3 are important in preparing the programme for R2R mainstreaming regardless of scale – national, sub-national and site level. SG 4 may be used if situation demands the need for initial feedback or buy-in of target communities. Site level planning and implementing should always be viewed from national and sub-national contexts to ensure that initiatives are not carried out independently outside of current policies and programmes of governments and their development partners. The outputs of SG 1, SG 2, and SG 3 are inputs to assessing and selecting the scale of R2R mainstreaming. For example, SG 1 outputs could show the major land-sea forms at each sub-national level, the major ecosystems and EGS, the main EGS users and consumers, and threats to ecosystems and institutional challenges for improving enabling conditions.

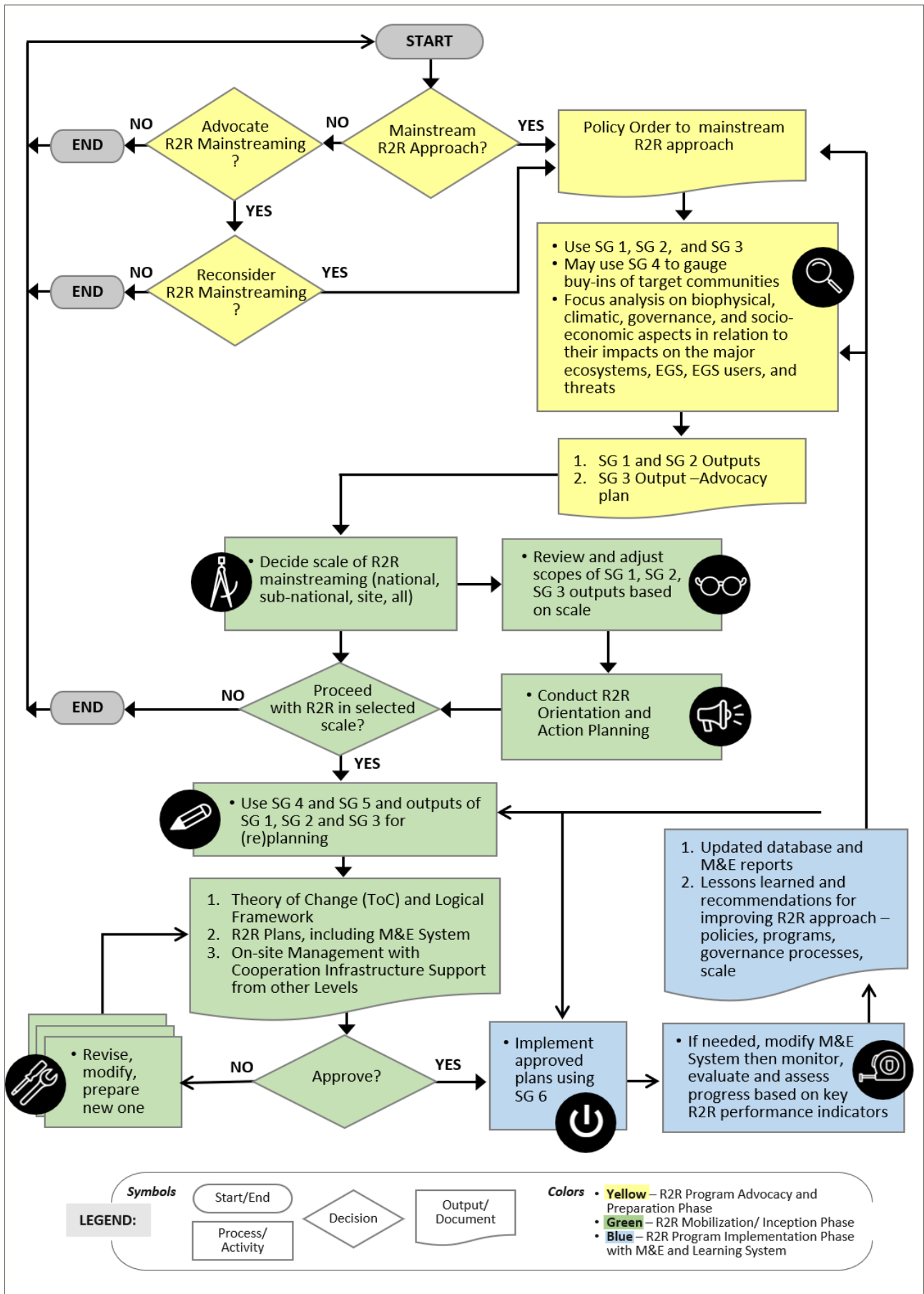


Figure 1: Suggested flow of programme-based R2R mainstreaming.

The spatial and governance analyses anchor the process of carrying out advocacy campaigns (targeting the adoption of proposed modifications of current policies and programmes in order for them to be R2R-responsive); mounting social marketing campaigns (targeting increased awareness, changed attitudes, adopted desired behaviours of communities); and multi-level R2R planning and implementation based on natural, social, institutional, economic and financial assets, comparative advantages, threats and emerging opportunities.

Some questions for the R2R preparation phase are the following:

- a) Are there ecosystems and their EGS that need protection within the country/state/island because of their crucial role in improving the country's resiliency, ecological stability, socio-economic development, and comparative advantages?
- b) Are there database and existing land cover and land use maps for spatial analysis to determine which land-sea forms within the country, state, island, inter-island need to be protected, conserved, and managed to sustain the EGS for its various critical uses?
- c) Based on the spatial and governance analysis using SG 1 and SG 2, who are the major stakeholders in the important land-sea forms in each sub-national unit and at national levels? At the selected sites?
- d) What policies and key institutions need to be considered during the preparation?
- e) What are the existing governance mechanisms or processes for coordination, complementation, collaboration, and other joint undertakings?
- f) Are there policy gaps? Weaknesses, absence, or limitations of current governance processes for steering? Coordination? Protocols for collaboration and collaboration? Joint programming and financing in support of R2R mainstreaming?
- g) If R2R orientation and/or advocacy is needed, who are the possible target groups? What do they want to know? Their vested interests? The programmes they are supportive of?
- h) Has there been initial expressed interests of the regional groups such as CROP and development partners and donors of their interest to support R2R mainstreaming? At what stage is this happening?



Combatting erosion with Nature-based Solutions, vetiver grass is used as effective soil bioengineering and coastal erosion protection and stabilisation for the stream banks in Samoa. Photo by Areta Areta

The outputs of SG 1, SG 2, SG 3, and SG 4 need further analysis to determine the most appropriate scale for R2R mainstreaming in each PIC. Criteria for deciding scale may include willingness and buy-in of national, sub-national and local stakeholders to coordinate, collaborate, and pool available resources; importance of land-sea form ecosystems and their EGS to the economy; degree of degradation and level of regulatory governance of the land-sea area; expressed willingness of local stakeholders to integrate sector programmes in selected areas. Another criterion might also be willingness of the development partners to provide initial support and the private sector's participation in supporting R2R initiatives including their willingness to consider payments of ecosystems services (PES). If resources are limited, then replication of planning and implementation may only be pursued in selected sites especially those adjacent to or like the Regional R2R or STAR project areas. The R2R strategy demands responsive policies, institutions, and governance processes for replication and scaling up at the site and sub-national areas where R2R impacts matter most.

As soon the scale is selected in the inception/mobilisation phases, then the planning and implementation of R2R mainstreaming may be started. Before jumping into developing new plans or updating plans, however, it is suggested that a theory of change (TOC) for the R2R mainstreaming in the context of selected scale be developed by the key local stakeholders with assistance from a TOC facilitator and trainer. The TOC provides the chains of expected results from strategic activities which could easily serve the purposes of developing logical framework for the R2R mainstreaming programme or project. An example is the suggested final logic statement such as the one below, which is developed for the three R2R mainstreaming strategies in the PICs. This statement may serve as the mother statement of R2R mainstreaming with the suggested strategy's view (please see Annex A):

***IF** national, sub-national and local stakeholders understand and value mainstreaming R2R (IWRM/ICM) approaches in their major land-sea forms to ensure the sustainable supply of ecosystems goods and services to meet their community needs and improve resiliency as a result of:*

- Scaling up advocacy and social marketing communication campaigns with a unified message of optimising R2R benefit flows in PICs land-sea areas,
- Replicating participatory integrated R2R planning with envisioned R2R benefit flows at the local, sub-national and national levels, and
- Replicating R2R implementation of approved integrated R2R plans to realise R2R benefit flows at the local, sub-national and national levels,

***THEN**, the GEF Pacific R2R programme through its Regional IW Ridge to Reef (IW R2R) project has substantially supported the PICs efforts to mainstream R2R approaches for integrating protection, restoration, and development of land, water, forests, coastal resources, and biodiversity;*

***THEREBY**, significantly contributing towards the PICs R2R vision of "maintained and enhanced PIC's ecosystem goods and services" to help reduce poverty, sustain livelihoods, and build climate resilience.*

Existing plans may be updated, or new ones prepared focusing on TOC-based analysis of existing situation, visioning, formulation of strategies, and developing the impact statements and the M&E and Learning system. The plans lay down a road map to success and, as they say, failing to plan leads to failure. The formal approval of the plans puts in place the protocol and seal of approval for coordinating policy implementation of key institutions especially in operationalising their programme support commitments. The outputs of SG 5 and SG 6 combined with SG 1, SG 2, SG 3, and SG 4 are helpful at this stage of R2R mainstreaming. The outputs of SG 6 provide the necessary steps and processes for monitoring, evaluation and learning activities based on assessing the progress of implementation over the mainstreaming period. Reports and lessons are generated from the preparation, inception/mobilisation, and planning/implementation phase. These can be used in formulating recommendations for improving R2R-related policies, strengthening institutions and governance processes, enhancing plans and revisiting work plans for implementation. They can also be used to re-visit each of the sub-guides and making them more responsive and updated based on field experiences, results, and feedback from stakeholders.

EMBEDDING THE R2R SUCCESS FACTORS IN THE SIX SUB-GUIDES

The Guide's six sub-guides seek to de-mystify the perceived complexity of R2R approach. The six sub-guides seek to break down, simplify and clarify various R2R inter-related tools, techniques, and processes in translating R2R intentions into realities at the national, sub-national and site levels. The sub-guides with the suggested flow of R2R mainstreaming (Figure 1) may be used in orienting and/or advocating the R2R approach or re-directing existing policies and programmes, strategies, and activities towards mainstreaming R2R in PICs. The sub-guides attempt to broaden the stakeholders' understanding of R2R approach and to mobilise support that will address the GEF Pacific R2R programme's focal areas of biodiversity, climate change adaptation, climate change mitigation, land degradation, sustainable forest management and international waters. Accordingly, the sub-guides embed the major R2R success factors in all phases of programme based R2R mainstreaming.

In Figure 2, Scherr et al. (2015)¹³, sketched the five elements and three major catalysts of sustainable landscapes. This model is quite applicable to R2R approach in PICs. In R2R mainstreaming, governance as one of the catalysts is key in setting up multi-level platforms among stakeholders; in facilitating shared understanding of what, why, for whom, where how and how much will the mainstreaming cost; in collaborative planning R2R programmes or projects; in achieving effective implementation; and in carrying out inter-agency M&E activities including the process of filtering out lessons learned as basis for modifying or aligning policies and programmes. The governance systems serve as the "gatekeepers" on what and what should be allowed and not allowed with respect to land and resource uses, investments, policies, and other regulatory measures in the defined boundary of an R2R planning unit.

The SG 1, SG 2 and, to a certain extent SG 3 and SG 4 incorporate the processes of identifying and analysing current policies and areas that are in need for improving the governance system for effective R2R mainstreaming. The starting points are the existing systems such as current policies, mandated institutions and their programmes, and inter-ministerial committees (IMCs) or coordinating bodies where different R2R-related sectors converge. Major sectors needing coordination may include forestry, agriculture, fisheries, coastal and marine, research and development, education, tourism, and infrastructure. Coordination could help ensure that individual sector programmes in a defined R2R area would result in sustainable and resilient conservation-based socio-economic development. For small island countries, coordination and steering bodies are crucial especially when local economies largely depend on the ecosystems' supply of major EGS such as timber, non-timber, minerals, fisheries, tourism, climate change resiliency, among others.

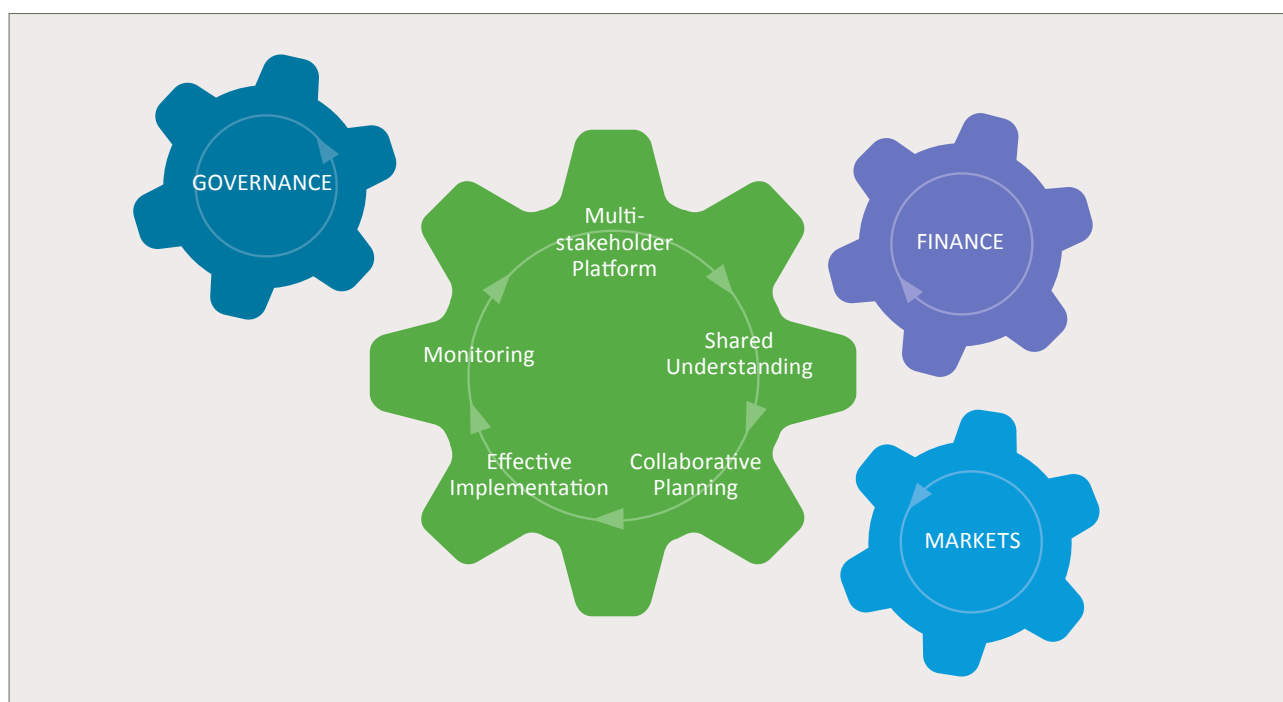


Figure 2. The elements and catalysts of sustainable landscapes (Scherr et al. 2015)

13 Scherr et al. 2015

Understanding the links of protection and conservation with development and the requirements for effective regulatory governance, equitable and inclusive and use of EGS among users and consumers could reduce free riders and minimise overuse, irresponsible exploitation, and disposal of pollutant-causing materials. This is where the governance system and markets need to assess trade-off especially when unregulated socio-economic development threatens the inherent capacities of the ecosystems to supply the major EGS in and outside the land-sea area. The SG 1, SG 2, SG 3, and SG 4 are of value for identifying the key governance and market forces that impinge on the demand for EGS from users and consumers and how they are affected by weak governance systems and inadequate financing for R2R implementation activities. The benefits flow from the R2R sites in a sub-national area will continue if the EGS contribute to the local economy, contribute to generating marketable goods and services, and are sustained over time even with increasing population, erratic weather conditions, and weak governance systems. This will need, however, healthy, and resilient ecosystems.

Lastly, financing is another catalyst for ensuring the success of R2R mainstreaming. Commitments for sustainable support over a certain period can spell the outcome of the mainstreaming process. That is why selecting the scale of mainstreaming is a major deciding point as pointed out in Figure 1. Mainstreaming needs funding support from national and local governments, development partners, donor agencies, private sector thru the PES systems, and non-government organisations. Donors could provide initial support during the mobilisation, beginnings of mainstreaming, and selected activities during the mainstreaming implementation. The outputs of SG 4, SG 5, and SG 6 combined with those of SG 1, SG 2 and SG 3 could be used to identify which key activities may be supported from collaborations of government programmes, donor agencies, NGOs, the private sector via PES, and community counterparts.

Table 1 provides an overview of the R2R success factors considering elements and catalysts of an integrated landscape approach. Embedded in the six sub-guides are the three strategies for R2R mainstreaming (advocacy and social marketing, planning and implementation), steering, cooperation, and processes. The set of sub-guides was prepared to generate and assess options in pursuing various R2R strategies, lay down the requirements for steering functions to facilitate cooperation and shared understanding in adopting the R2R mainstreaming, and identify key processes that would promote collaboration, complementation and complementation in planning and implementation activities. Thus, it is important that whoever uses the set of sub-guides to guide the R2R mainstreaming in each PIC, is cognisant of the R2R approach, the programme-based planning and implementation of the mainstreaming process and is familiarised with using the different sub-guides. The R2R mainstreaming team – national, sub-national and site levels – should be able to build on the guide and its sub-guides to start the preparation phase, followed by mobilisation/inception, and then the planning and implementation phases.



Tonga International Waters R2R Project Rapid Coastal Assessment team comprised of technical staff from different Ministries conducting surveys. Photo by Tonga IW R2R Project

Table 1. The R2R success factors and how they are embedded in the six sub-guides

Sub-Guides	R2R Success Factors			
	R2R Strategies	Steering	Cooperation	Processes
SG 1 – Mapping and Spatial analysis	<ul style="list-style-type: none"> Locates the target area, boundaries, key stakeholders Highlights key sectors for analysis and generating options Maps institutional and geographic responsibility of R2R-related institutions 	<ul style="list-style-type: none"> Provides inputs to the process of identifying stakeholders for inclusive participation in governance bodies and target groups for advocacy and social marketing 	<ul style="list-style-type: none"> With the location and boundaries of target areas, pinpoint areas under threats for cooperation among stakeholders Highlights dominant institutions for R2R coordination 	<ul style="list-style-type: none"> Identifies institutions and stakeholders who should participate in mapping, spatial analysis, validation processes, prioritisation, and scale selection
SG 2 – Policies, institutions, and governance processes	<ul style="list-style-type: none"> Identifies R2R-related policies, the institutions, their programmes, and support systems Lists suggestions for setting up strategies for improving governance system 	<ul style="list-style-type: none"> Suggests who should be represented in the steering/governance bodies Considers steering at different level of governance – national, sub-national, site level – to facilitate coordination, complementation, and collaboration List major roles and functions of regional bodies and national, sub-national, and site level steering bodies 	<ul style="list-style-type: none"> Suggests some interventions to generate participation among stakeholders, define accountability and responsibility in making choices, decisions, and actions with respect to R2R policy development, planning, and implementation 	<ul style="list-style-type: none"> Highlights the need to set up multi-level steering/governance bodies that are inclusive, transparent, accountable, and accountable to outputs and outcomes of R2R investments and interventions. Provides guidance for resolving institutional overlaps, conflicts, and selecting members of governance bodies to be inclusive
SG 3 – Advocacy	<ul style="list-style-type: none"> Suggests strategies on how to orient, communicate and present advocacy agenda to target groups – policy and decision makers including development partners and donors – on how they can implement or improve policies and programmes in support of R2R mainstreaming 	<ul style="list-style-type: none"> Helps identify who among the upstream stakeholders may be part of the steering body based on results of advocacy campaigns 	<ul style="list-style-type: none"> Advocacy outcomes could be used to gauge degree of their willingness to participate to influence other policy and decision makers 	<ul style="list-style-type: none"> Provides suggestions on how advocacy may be carried out targeting various upstream groups Lists various tools and techniques for planning and carrying out advocacy campaigns especially at the start of the R2R mainstreaming phase

Sub-Guides	R2R Success Factors			
	R2R Strategies	Steering	Cooperation	Processes
SG 4 – Social marketing	<ul style="list-style-type: none"> Suggests how to generate feedback and recommendations from communities for inclusion in R2R strategies especially for improving governance system, R2R plans and work plans 	<ul style="list-style-type: none"> Helps identify who among the downstream stakeholders – communities and EGS users – may be invited to be part of the steering body based on results of campaigns 	<ul style="list-style-type: none"> Outcomes may suggest how to engage the cooperation and participation of target community groups 	<ul style="list-style-type: none"> Processes for identifying target groups, assessing their willingness to accept or modify R2R technologies and desired behaviours, and developing the proper mix of incentives and messages to reduce or remove barriers to adopting or accepting desired attitudes and behaviours.
SG 5 – R2R planning	<ul style="list-style-type: none"> Provides steps for analysing current situation, formulating envisioned future and integrated R2R strategies to achieve outcomes in the target R2R unit – national, sub-national and site 	<ul style="list-style-type: none"> Identifies process and stakeholders who should be members of the steering body including their possible role in preparatory R2R planning and implementation phases 	<ul style="list-style-type: none"> Identifies the sectors, institutions, local stakeholders especially EGS users and consumer groups who should cooperate to achieve the R2R outcomes. Identifying protection and conservation measures, development support for communities, governance processes, research agenda, capacity building, financing, M&E, and generating lessons learned for improving policies and implementation. 	<ul style="list-style-type: none"> Provides steps for participatory planning based on the outputs of the SGs.
SG 6 – R2R Implementation including M&E and Learning system	<ul style="list-style-type: none"> Provides guidance for developing an implementation strategy especially during the mobilisation, recruitment of project staff, orientation, and internal training, setting up governance processes, and developing work and financial plans. 	<ul style="list-style-type: none"> Lays down guidance for establishing the governance bodies to carry out steering, directing, oversight, advocacy, and policy development roles 	<ul style="list-style-type: none"> Identifies the key sectors and local stakeholders who should carry out cooperative actions either individually or in collaborative manner provided that these activities contribute towards the convergent R2R outputs and outcomes. Financing Oversight and steering M&E and learning processes Research and development Partnership Local advocacy and social marketing 	<ul style="list-style-type: none"> Suggests key activities during the mobilisation stage of implementation, developing annual work and financial plans to achieve outputs and outcomes, diversifying funding sources for R2R implementation, developing M&E L systems and protocol for its collaborative process, and working with the governance bodies to generate lessons learned and advocate required changes in R2R –related policies, implementation, and mainstreaming processes.

Table 2. R2R mainstreaming sub-guides and the possible uses of the outputs in various activities

R2R Mainstreaming Sub-Guides	Outputs	R2R Mainstreaming Strategies			
		Advocacy Campaigns	Social Marketing (SM) Campaigns	R2R Planning	R2R Implementation
SG 1– Data Gathering, Mapping, and Analysing the Benefit Flows of Land-Sea Forms in Support of R2R Mainstreaming Strategies	<ul style="list-style-type: none"> • Spatial and non-spatial data for analysis • Thematic, derived, and composite maps showing key bio-geophysical and climatic features, ecosystems, EGS and EGS users, demography, boundaries of governance units, susceptibility or vulnerability to erratic weather conditions and human –induced disasters • Excel tables with unit estimates 	<ul style="list-style-type: none"> • Outputs will help identify key information in crafting the target audience, key EGS, EGS users and consumers, threats, locations, and susceptibility in the R2R planning unit • Output can help formulate the message, prioritise audiences, and strategies to communicate messages 	<ul style="list-style-type: none"> • Outputs will help identify key EGS users, communities, and consumers in upstream and downstream areas. • Facilitate pinpointing target audience, and message formulation based on R2R issues in the area where they can be affected or participate in major activities 	<ul style="list-style-type: none"> • Helps provide a major part of the Step A of the R2R planning process and completing the analysis of existing situation • Provide visualisation of the R2R site for consultations, getting buy-in, and validation purposes. • Important in prioritising the strategies and formulating the VMOs in Step 2 of R2R planning. 	<ul style="list-style-type: none"> • Helps in developing work and financial planning for operations • Helps in M&E activities • Important in carrying out restoration and protection, advocacy, social marketing, R&D, enforcement, and support for marginalised communities
SG 2 – Identifying Relevant R2R Institutions and Establishing Governance Bodies for Steering, Directing, Supporting Policy Development, Planning and Implementing R2R Strategies at the Site, Sub-National and National Levels	<ul style="list-style-type: none"> • List and description of key provisions that are related to R2R approaches • List and analysis of key governance and management units in the planning unit • Existing and proposed systems for improving governance processes for programming, coordination, complementation, collaboration, steering, and conflict resolutions • Suggested composition of governance bodies for steering and coordination in R2R unit • Opportunities for expanded support for R2R approach • Gaps and areas for improvement for strengthening R2R policies and governance processes 	<ul style="list-style-type: none"> • Inputs to advocacy plan formulation and implementation especially in identifying target audience and formulation of messages • Helps identify information, education, communication (IEC) strategies 	<ul style="list-style-type: none"> • Inputs to SM strategy especially on policies and programmes that will support R2R and those that restrict EGS uses including land and resource uses. • Provide mechanisms for targeting downstream communities and including them as part of the governance bodies and support for improving livelihoods, infrastructure, and social services. 	<ul style="list-style-type: none"> • Part of Step A, B and Step C in R2R planning 	<ul style="list-style-type: none"> • Inputs in the preparation of work and financial plan of R2R activities • Provide mechanisms to link with both downstream and upstream stakeholders during the implementation processes

R2R Mainstreaming Sub-Guides	Outputs	R2R Mainstreaming Strategies			
		Advocacy Campaigns	Social Marketing (SM) Campaigns	R2R Planning	R2R Implementation
SG 3 – Developing Strategies for Advocating R2R Policies and Programmes at the Site, Sub-National and National Levels	<ul style="list-style-type: none"> • Target audience • Key messages of the campaign • IEC strategy and plan to achieve advocacy targets 	<ul style="list-style-type: none"> • Major inputs to the advocacy strategy preparation 	<ul style="list-style-type: none"> • Helps connect the downstream audience with policies and programmes that are being advocated for their own benefit 	<ul style="list-style-type: none"> • Part of the Step A but mostly to be included as part of a site, sub-national and national R2R plans 	<ul style="list-style-type: none"> • Becomes part of the implementation activities in any R2R unit
SG 4 – Developing and Implementing Social Marketing Strategies for Target R2R Communities	<ul style="list-style-type: none"> • Target audiences • Key messages of the SM campaigns to achieve targets in desired awareness, attitudes, and behaviours • Strategy and plan to achieve SM targets 	<ul style="list-style-type: none"> • Defines the intended beneficiaries of the policies and programmes that are being advocated 	<ul style="list-style-type: none"> • Major inputs to SM campaigns 	<ul style="list-style-type: none"> • Part of the R2R plan 	<ul style="list-style-type: none"> • Inputs for the work and financial plan of R2R activities
SG 5 - Preparing, Legitimising, and Seeking Approval of R2R Plans at the Site, Sub-National and National Levels	<ul style="list-style-type: none"> • Analysis of the existing situation in the R2R planning unit • VMOs • R2R strategies for implementation after approval • M&E key performance indicators to link improvement of the R2R area to the VMOs after implementation of strategies 	<ul style="list-style-type: none"> • Validates or helps modify the advocacy strategy 	<ul style="list-style-type: none"> • Validates or helps modify the SM strategy 	<ul style="list-style-type: none"> • Inputs to R2R plans 	<ul style="list-style-type: none"> • Approved R2R plan becomes basis of implementation
SG 6 - Mobilising, Organising, and Strengthening R2R Implementing Units	<ul style="list-style-type: none"> • Suggested composition of the governance bodies • Recommendations for implementation structure, protocols, and partnerships • Priority areas for capacity building target groups • Work and financial plan that covers all approved strategies • TORs and scope of work 	<ul style="list-style-type: none"> • Inputs for crafting advocacy meeting agenda for upstream audiences 	<ul style="list-style-type: none"> • Inputs for crafting SM meeting agenda with communities 	<ul style="list-style-type: none"> • Lessons learned help in R2R planning in other replication sites 	<ul style="list-style-type: none"> • Inputs to refining the work and financial plans

RECOGNISING THE INTER-RELATEDNESS OF THE SIX SUB-GUIDES AS GUIDE FOR R2R MAINSTREAMING

As may be inferred from the previous sections, the users should understand the inter-relatedness of the six sub-guides in any phase of the programme based R2R mainstreaming. This section discusses how the sub-guides are inter-related with respect to the processes, and their outputs to achieve the goals and objectives of R2R mainstreaming. It also discusses key steps and processes for what each sub-guide intends to accomplish. The sub-guides are not stand alone. Table 2 provides a brief overview of how the outputs of the sub-guides contribute towards the planning and implementation of the R2R mainstreaming strategies.

As seen in Table 2, outputs from each enhance the planning and implementation of the R2R mainstreaming strategies. For example, carrying out activities under Sub-Guide 1 will deliver outputs that are useful for conducting activities in Sub-Guides 2, 3, 4, 5 and 6. Outputs from data and spatial analysis from Sub-Guide 2 will help determine the boundaries of political jurisdictions and mandates of technical sectors at the site and sub-national planning units. This will then clarify processes for planning and implementing relevant national and sub-national policies; for identifying key institutions and stakeholders in the planning unit; for creating/establishing/strengthening inclusive governance bodies that will facilitate coordination, collaboration and complementation of R2R activities; for strengthening mechanisms for accountability, authority, and responsibility; and for setting up various protocols, implementation arrangements, and adjudication units.

Moreover, outputs from Sub-Guides 1 and 2 will then enhance the preparation of the IEC campaign plan for advocating R2R policies and programmes to effectively mainstream R2R at the site, sub-national and national levels. At the R2R site, outputs from Sub-Guides 1 and 2 will help identify target audience, messages and strategies in planning and implementing social marketing activities to promote adoption of desired behaviours among community members and their leaders.

Outputs from Sub-Guides suggest addressing gender inclusiveness and allow for participation of women, youth, and vulnerable groups in carrying out activities under each sub-guide. Outputs from Sub-Guides 1, 2, 3 are useful for R2R planning and implementation at the site, sub-national and national levels. All the outputs of the Sub-Guides provide key information that is relevant in developing multi-level database and M&E systems for analysis, reporting, and informing key decision makers and governance bodies for improving policies, aligning strategies, and retrofitting annual work plans to help achieve the desired outcomes.

In summary, the R2R Mainstreaming Guide with six Sub-Guides (SGs) intends to support specific activities in PICs' planning and implementation of the R2R mainstreaming strategies. The Sub-Guides are best used as "guide" for technicians, project staff, advisors, teachers and faculty members, and consultants in designing series of activity plans to complete each of the sub-guide's outputs. They are prescriptive in nature but were based on lessons learned from R2R experiences in PICs, emerging best practices in other countries, and review of key R2R publications. The sub-guides are intended to enable the users in preparing indoor classroom type of orientation and training modules followed by appropriate field activities to deliver the outputs, which can be used as input to advocacy, social marketing, planning and implementation plans. The sub-guides can also be used as reference for sequential type of curriculum development and for developing more detailed field or laboratory instructions.

The suggested steps and processes and outputs may be modified or improved to suit the technical staff, and community participants during training, orientation, or subject classes. They could also broaden and enlighten researchers and scientists as they formulate or define problems, identify gaps of knowledge and information on issues pertaining the connectedness of ecosystems in R2R and the flow of EGS benefits to various users and consumers. The sub-guides follow a standard outline of presentation – what, why, objectives, methods with steps and processes, and outputs. In some cases, examples are used from various sources.

The references that were used in this Guide are useful for deeper inquiry and studies.

The Set of Practitioners' Guide for R2R Mainstreaming

This section simply provides the details of the Six Sub-Guides as a set for the R2R mainstreaming. Intended users are encouraged to adequately understand the suggested three R2R mainstreaming strategies for PICs as background material and the earlier sections of this practitioners' guide.

SUB-GUIDE 1 (SG 1)

DATA GATHERING, MAPPING AND ANALYSING THE BENEFIT FLOWS OF LAND-SEA FORMS IN SUPPORT OF R2R MAINSTREAMING STRATEGIES



*Water quality monitoring and training, Belau Watershed, Palau.
Photo by Republic of Palau IW R2R Project*

Introduction

SG 1 aims to outline the key processes, the spatial data requirements, and the generic steps in generating a set of derived maps that will highlight the benefit flows of R2R strategies using spatial and non-spatial data. The spatial analyses' expected outputs aim to serve the needs for advocacy, governance, social marketing, planning, implementation, M&E including payment for ecosystems services (PES), and environmental impact assessments (EIA) of proposed strategies.

The outputs of the spatial analysis at the sub-national level could be used for aggregation with other sites for national-level planning and programming. They can also be used as a context for the site-specific R2R plans. The processes in spatial analysis and outputs can facilitate a consensus on what collective efforts are required to achieve the envisioned future. The outputs can help visualise what actions can address the increasing threats to the ecosystems and EGS, sustainability, quality, quantity, and even the availability of the EGS over time.

SG 1 is carried out to broaden stakeholders' perspective and intensify self-interests towards common actions in key areas – policies, governance, EGS users and markets, and sustainable financing, which are the major set of success factors in R2R approach. The spatial analysis can direct R2R management measures, amplify appropriate regulatory governance systems, direction for strategic leadership, and qualifications of competent management teams. It can also help facilitate the process in generating a shared understanding of the R2R strategy among government leaders, donors, communities, and civil society

SG 1 provides an overview of spatial analysis followed by a brief discussion or explanation. It presents the spatial, bio-geological, climatic, policy and governance, and socio-economic analyses to show how the natural assets are transformed into environmental, economic, and financial assets to benefit ecosystems, households, and livelihoods of EGS users and consumers, and overall site resiliency. In the end, both the well-being and the whole economy improves. But, without collective efforts towards a common envisioned future to compel actions and address the increasing threats to the ecosystems and EGS, the sustainability, quality, quantity, and even the availability of the EGS may decline over time. SG 1 feeds into the self-interest of the local stakeholders, with the support of the sub-national and national leaders. SG 1 can help improve the awareness and understanding of development partners, donors, and the private sector to work together with mandated public agencies and communities to mainstream R2R approaches in PICs.



Water quality monitoring and assessment training, Kiribati.
Photo by Kiribati IW R2R Project

Objectives

1. Gather and analyse using non-spatial and spatial techniques the biophysical, socio-political, economic, and demographic data to spatially delineate management areas;
2. Identify and prioritise problems, issues and threats regarding ENRM, ecosystems and EGS; ENR policies and governance; disasters; economy, and infrastructure and social services support to the population and economic sectors;
3. Discuss the comparative advantage of the R2R planning unit concerning ENR assets, climate, institutions, demography, economy, infrastructure, and social services support; and
4. Discuss the emerging opportunities for improving ENRM, ENR policies and governance, economy, and infrastructure and social services support for the population and economy.

Users

The intended users of this guide are staff who are knowledgeable in map data compilation and map overlay analysis done in GIS. They may include those with a technical background and are familiar with or have applied some of the data gathering processes and have performed analysis to develop R2R-type plans, resource management or implementing forestry, coastal and environmental projects.

Implementing or using SG 1 will need a series of workshops among members of a technical working group or committee for process the outputs. Guide questions are also listed to help in facilitating answers from the working group. The outputs of this sub-guide feed into the other sub-guides, and it is suggested that in applying this sub-guide, the workshops be designed to integrate with the other sub-guides.

SG 1.1 – Carry out orientation and workshops with the potential members of the technical working group (TWG)

The mandated institution or agency to carry out the R2R mainstreaming strategies will need to inform relevant institutions who are involved directly and indirectly in protecting, conserving, regulating, developing, and managing the target R2R sites at the sub-national and national levels. Invitations to the heads of concerned agencies and community groups are sent to allow their technical staff to attend the orientation and do some exercises.

The orientation will include the standard presentation on R2R approach, mainstreaming strategies, and the key steps involved in carrying out SG 1. This may take at least a day or two depending on the site to be visited. At the end the orientation, actions steps are determined towards the formation of TWG to apply the SG 1 for R2R mainstreaming.

SG 1.2 – Organise the TWG and help them prepare for the SG 1 activities

Organise team with the following:

1. **GIS staff** – knowledgeable in GIS and is in charge of compiling the different maps needed, perform the spatial analysis required, and layout the necessary maps and summary tables for presentation purposes. They will also be tasked to update or revise the maps and attribute as soon as there are revisions/updates from the workshop results.
2. **Workshop facilitator** – take charge of asking the guide questions and facilitating the participation of the audience.

Scale of Analysis

Given the fair number of maps that need to be overlaid, it is suggested to do the map overlay at the sub-national level, preferably state or provincial. Evaluation of the map overlay results can be done per state/province.

SG 1.3 – Gather spatial and non-spatial data and compile maps

Based on the review of available spatial data, many of the required maps listed below are already available in the various spatial data hubs maintained for the PICs. Some of these maps are ready to use; however, some require editing and conversion into vector format (either polygon, lines, or points). Some of them need to be reviewed to filter some of the features that may not be relevant. At the end of this sub-guide, more details on how each map is prepared are provided.

As these maps will look at the coincidence of different map layers, it is expected that each polygon map layer is free from topological issues such as slivers and overlaps, and that the attribute table entry has already been standardised (e.g., categorisation, spell checked.)

The spatial data listed below are grouped based on the components of the situational analysis.

Table 3. List of Spatial Data That Will Be Used in Situational Analysis

Spatial and Non-Spatial Data
Biophysical maps
Elevation (maybe digital elevation model)
Slope
Rivers
Watersheds
Land cover/land use (latest)
Critical terrestrial wildlife habitats
Marine habitats (coral, seagrass, mangrove, etc.)
Mean annual rainfall
Susceptibility to different geohazards (flooding, landslide, tsunami, drought, etc.)
Land and water management regimes
Land management regimes (land of private or public domain)
Protected area (terrestrial, marine)
Delineation of waters for management
Cultural and heritage sites (that are for protection)
Land or water tenure (areas legally appropriated for certain purposes or for certain groups)
Administrative boundaries
Boundaries of political and sub-political units (preferably includes in its attribute table the population data of each unit, poverty incidence)
Area of coverage of field units of national lines agencies that have jurisdictional responsibilities in the R2R pilot sites
Economic
Major agricultural production areas
Major fishing grounds, aquaculture, mariculture areas
Mineral tenements
Tourism areas
Non-Timber Forest Product Gathering areas
Timber concessions
Users of major ecosystems goods and services users (EGS)
Infrastructure for economic activities
Road network
Power generation plants
Communication related (cell sites, communication towers)
Sanitation – sewage treatment facilities, sanitary landfill, etc.)

Infrastructure for economic activities
Infrastructure – protection from geohazards (e.g., seawall)
Water related infrastructure (domestic water supply sources, irrigation water supply sources, dams)
Infrastructure for social services
Schools
Health centres
Protective services
Demographic
Population data (summarise population data per administrative area preferably up to the lowest administrative level)
Location of built-up area that is indicated in the land cover map
Location of households (mapped households with preferably attribute table with different demographic information – family size, access to water, access to sanitation, type of house structure, etc.)
Administrative boundaries
Boundaries of political and sub-political units (preferably includes in its attribute table the population data of each unit, poverty incidence)
Area of coverage of field units of national lines agencies that have jurisdictional responsibilities in the R2R pilot sites
Projects
Type and locations of the relevant government and non-government ongoing programmes in each of the economic sub-sectors located or being implemented in the target R2R sites.
Threats and issues in each of the target R2R case study sites
Location of threats and issues in each of the target R2R case studies that significantly impacts the protection, regulation, and management of land, environment and natural resources, ecosystems goods and services.
Map of areas conducted to monitor pollution both in terrestrial and marine areas



*Diver from Tonga Department of Environment conducting Rapid Coastal Assessment coral reef survey.
Photo by Tonga IW R2R Project*

SG 1.4 – Carry out spatial analyses

The spatial analyses tasks are divided into thematic groups that allow the spatial analysis process and outputs to be easily understood by an audience with various backgrounds. The results from the analyses are designed to contribute to a shared understanding of the R2R approach and the priorities for conservation and development. It is identified as a result of the analyses of an area's givens. Figure 3 shows a diagram for implementing the spatial analyses in mainstreaming R2R in the PICs. It also indicates the map overlay analysis technique to be used.

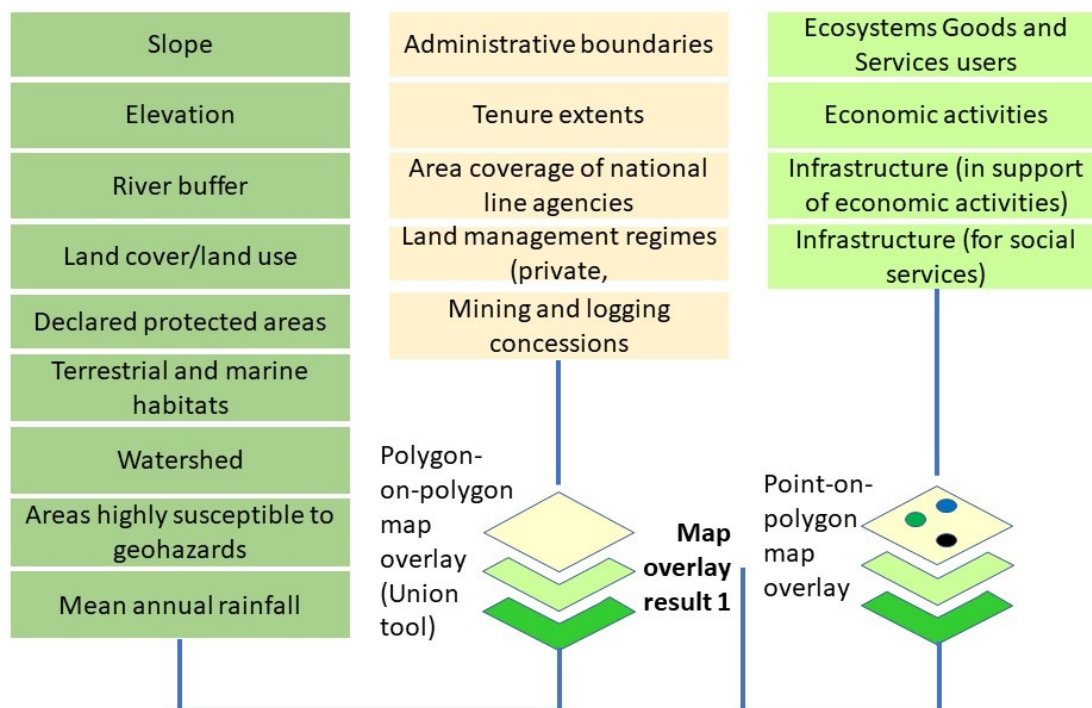


Figure 2. Diagram for Carrying Out the Spatial Analysis for Mainstreaming R2R in PICs

1. Identify the broad management zones based on key bio-geophysical and climatic features of the R2R

The bio-geophysical and climatic maps are the first level of map overlay that looks at the coincidence of these characteristics of land and water that helps in identifying broad management zones. Two broad categories can emerge, which are areas for protection and conservation and areas for production. The maps that are used for this section are listed below.

- Elevation and slope are prepared as polygon features categorised into relevant classes. Elevation may be broken down into elevation range, and slope may be represented as a range percentage slope or in degrees.
- River buffer strips at certain metres wide may be delineated on the map as areas for protection and conservation.
- Land cover data used to identify where the forests are and may be targeted as areas for protection.
- Protected areas in terrestrial and marine that have been declared through a specific policy should be included in the protection and conservation area.
- Important habitats in both terrestrial and marine areas that may have been identified and delineated already by studies are a candidate as a protection and conservation area.
- Watershed map breaks the landscape into parts with a biophysical system of its own.

The next set of maps may also be used to designate additional areas for protection and conservation or may be used as a layer of data to highlight those activities in said areas may experience possible adverse effects brought about by susceptibility to specific geohazards.

- Susceptibility to geohazards – areas that are highly susceptible to certain geohazards (i.e., landslides, flooding, tsunami)
- Climatic maps such as the mean annual rainfall map and the mean annual temperature are used to refine strategies in dealing with activities in the area.

In reviewing the map themes mentioned above, the following questions relating to governance are essential to set the protection and conservation area criteria: *What are the specific characteristics of the land and water that may be considered fit to be categorised as protection and conservation? Are there any existing policies that designate them as such? What are these specific policies?*

2. Identify the boundaries of governance and management units with responsibilities, authorities, and accountability that relate to the conditions of the ecosystems and EGS

Extents of the jurisdiction of local government units and resource use tenure spatially specify which of these governance units have jurisdiction over the upper reaches of a watershed or have resource use rights over an area. The maps below are needed to be able to quantify the extent and visualise the relationship between management zones and governance boundaries.

- Administrative boundaries of terrestrial jurisdiction and, if existing, also for the marine area – since the map overlay is suggested to be done at the state or provincial level, these sub-national administrative boundaries used here will be those below the said boundaries. These may include boundary up to the village level.
- Land and water tenure includes resource use permits (e.g., customary land and water ownership, logging concessions, mining tenements, fishing rights, etc.) and leases.
- Governance jurisdiction of different ministries over land and water

A **polygon-on-polygon map overlay** will be used for map analysis 1. Figure 3 shows a schematic of the polygon-polygon overlay process and output. The overlay results in a new polygon that inherits the input attributes embedded as new fields in the shapefiles.

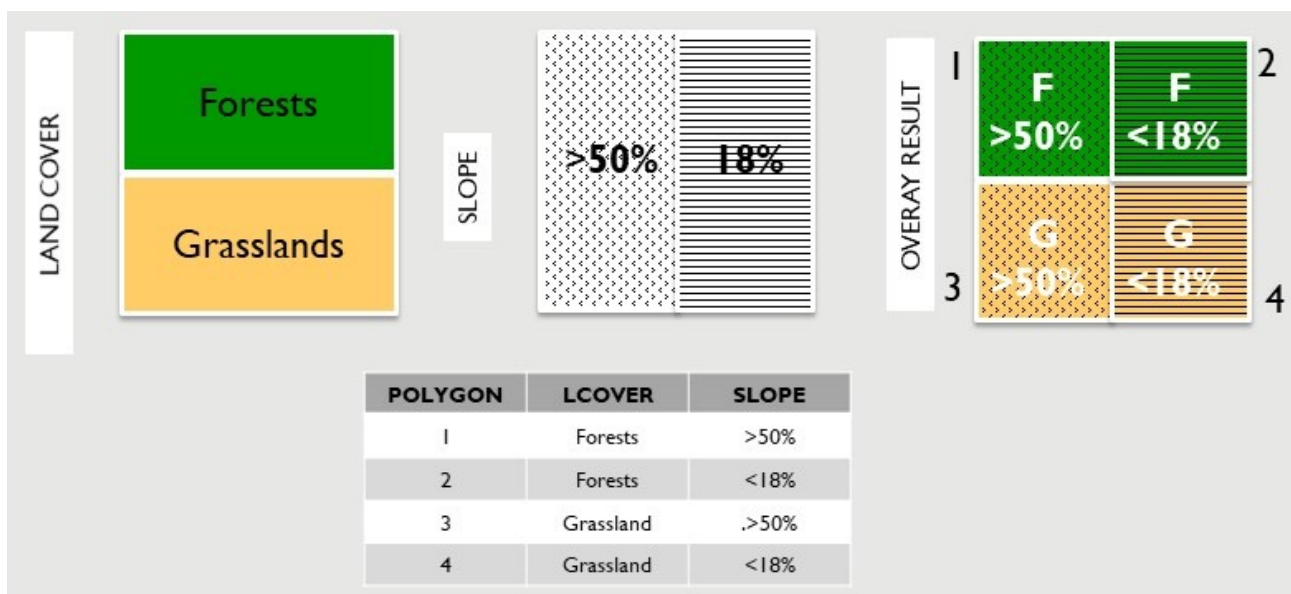


Figure 3. Polygon-on-Polygon Overlay Geometric and Attribute Table Result

The polygon-on-polygon overlay tool to be used in GIS is the UNION tool, available in most GIS software packages (e.g., ArcGIS, QGIS, Manifold, Mapwindow, etc.).

Figure 4 shows the map inputs (i.e., shapefiles or map layers) for the Union tool, resulting in a new shapefile (Map analysis result 1).

Figure 5 shows a simplified sample of the overlay map of the biophysical map layers to have a mapped result of areas that are for protection and conservation and the production areas. The susceptibility to geohazards maps although not included in the considerations for the protection and conservation areas, help in prioritising the application of certain strategies that will address the vulnerable conditions.

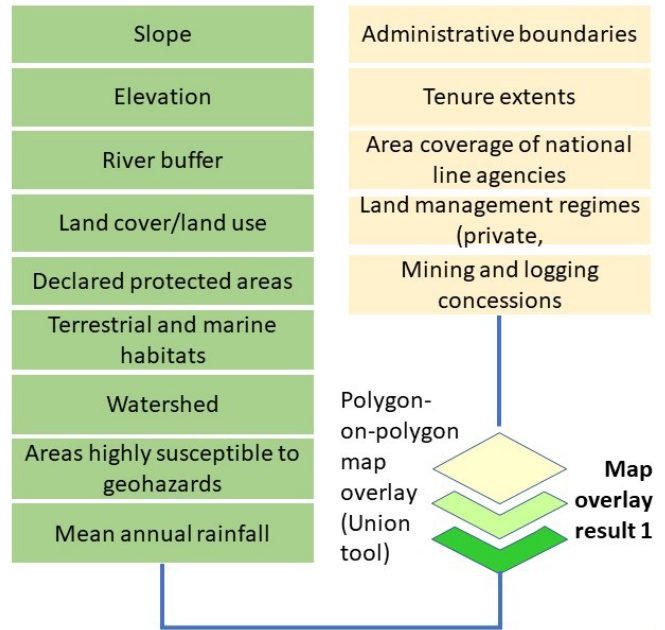


Figure 4. Map Inputs for the Union Tool

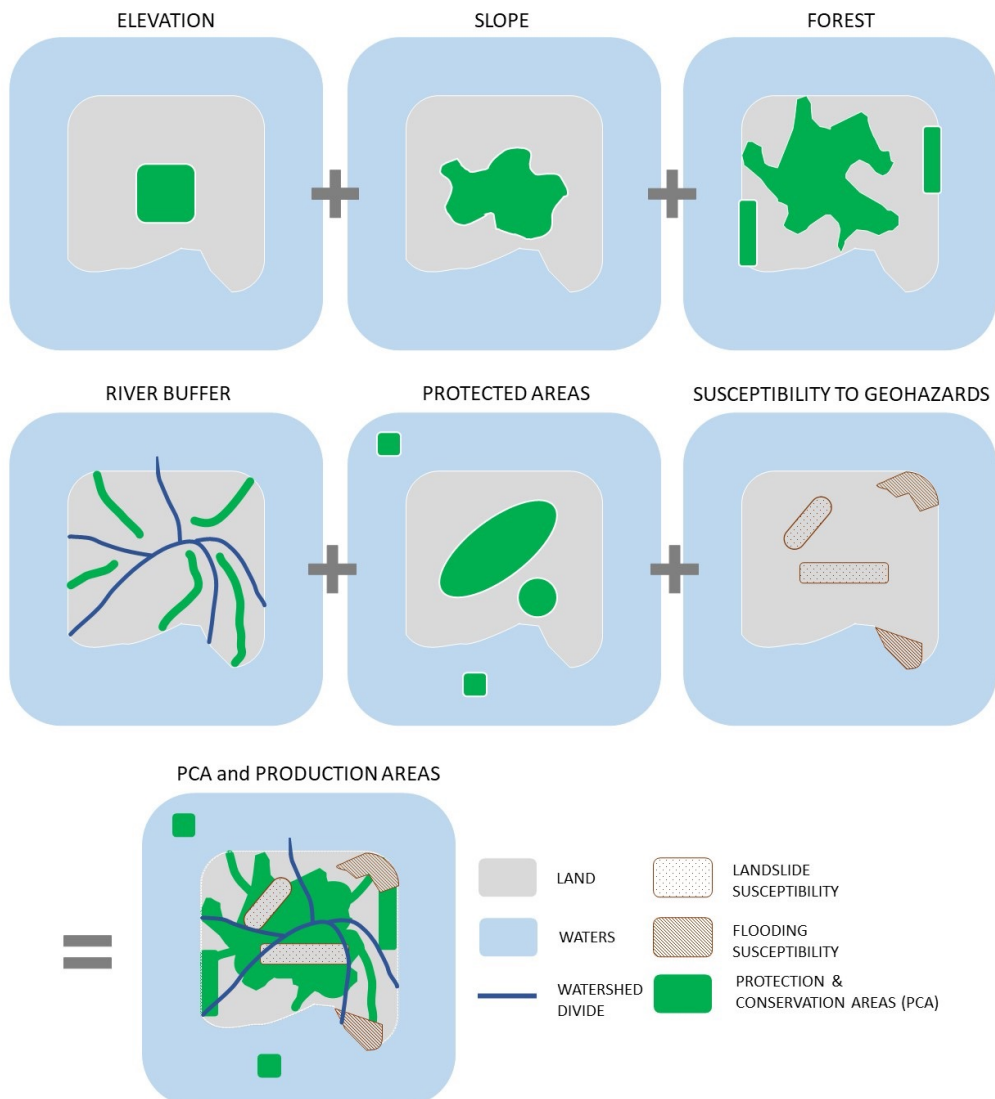


Figure 5. Simplified sample overlay of biophysical map layers and resulting map

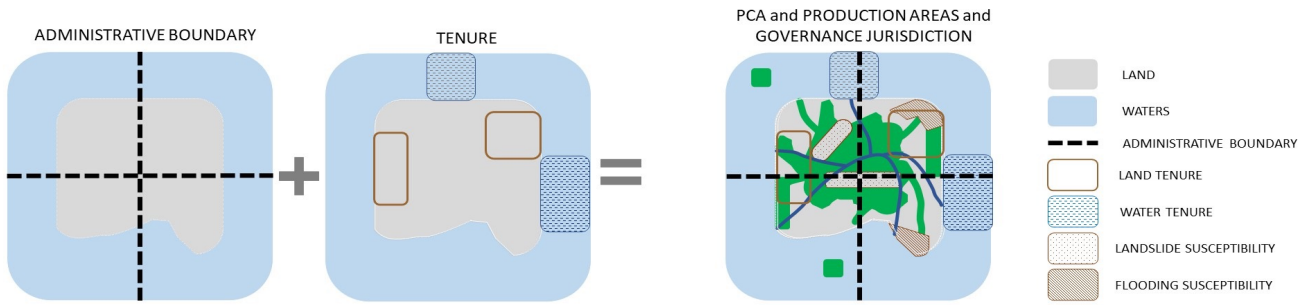


Figure 6. Sample Polygon-on-Polygon Overlay Attribute Table Result

Figure 6 shows the overlay of biophysical layers and the governance jurisdictions (Map Overlay Result 1). The sample shows two jurisdictions: administrative boundaries and land and resource use tenure.

After map overlay 1, the map inputs must be presented to the technical working group or committee. At this stage, it is expected that the criteria of what constitutes the protection and conservation area (PCA) are discussed and agreed on. Figure 7 shown below is a sample attribute table resulting from a polygon-on-polygon overlay.

PA	Elevation	Slope	River Buffer	Land Cover	Marine Habitat	Landslide Susceptibility	Flooding Susceptibility	Municipality	Tenure	Area
PA1	>1000m	30-50-%	20m	Forest		Moderate susceptibility	Low susceptibility	Municipality1		
PA1	>500m		20m	Brushland		Moderate susceptibility	Low susceptibility	Municipality1		
	>1000m	>50%		Forest		Moderate susceptibility	Low susceptibility	Municipality1	Private Lease	
	>500m	18-30%		Grassland		Low susceptibility	Low susceptibility	Municipality2	Private Lease	
	>100m	0-3%	20m	Grassland			High susceptibility	Municipality2	Private Lease	
					Coral			Municipality2	Fishing concession	
					Seagrass			Municipality2		

Figure 7. Sample Polygon-on-Polygon Overlay Attribute Table Result

Using the agreed criteria, the GIS/mapping person or team will tag the polygons that qualify as a PCA. Any of the land and waters not identified as PCA are part of the production area. Figure 8 below shows a sample attribute table of Map overlay result 1 with an added PCAPROD field (this is to be done in the GIS software). The table has all the different attribute fields from the input maps and a new attribute field named PCAPROD, where the polygons will be tagged as PCA, or PRODUCTION based on the agreed criteria of PCA. The table shows a filled out PCAPROD field where areas that are part of the following are classified as PCA:

- a) declared protected area,
- b) has slope 50% and above,
- c) elevation at 1000 masl and above,
- d) part of river buffer strip (20 metres), and
- e) has coral and seagrass marine habitats.

The remaining areas in the R2R planning area may be devoted to PRODUCTION and/or a mix of multiple land and water uses, including settlements and built-up areas.

PA	Elevation	Slope	River Buffer	Land Cover	Marine Habitat	Landslide Susceptibility	Flooding Susceptibility	Municipality	Tenure	Area	PCAPROD
PA1	>1000m	30-50-%	20m	Forest		Moderate susceptibility	Low susceptibility	Municipality1			PCA
PA1	>500m		20m	Brushland		Moderate susceptibility	Low susceptibility	Municipality1			PCA
	>1000m	>50%		Forest		Moderate susceptibility	Low susceptibility	Municipality1	Private Lease		PCA
	>500m	18-30%		Grassland		Low susceptibility	Low susceptibility	Municipality2	Private Lease		PROD
	>100m	0-3%		Grassland			High susceptibility	Municipality2	Private Lease		PROD
					Coral			Municipality2	Fishing concession		PCA
					Seagrass			Municipality2			PCA

Figure 8. Sample Map Overlay Result 1 with PCAPROD Field

After categorising the PCA and PRODUCTION areas, another column is added and named SUBCAT. This attribute will further categorise the PCA and PRODUCTION (or shortened as PROD) areas into subcategories that can be the basis for strategies. Table 4 suggests labels of the subcategories that will group the areas based on the polygon characteristics.

Table 4. Suggested subcategories of management zones

PCAPROD	SUBCAT	DESCRIPTION
PCA	PCA-PA-SPZ	A strict protection zone of a PA (if an SPZ is identified)
PCA	PCA-PA--MUZ	Multiple-use zone of a PA (if a MUZ is identified)
PCA	PCA-NForests	<ul style="list-style-type: none"> PCA because it has natural forests (closed, open, mangroves) based on the land cover information Among the PCA, categorise this area first. This would mean that even if a forested PCA area has an elevation of 1000 masl and 50% slope and above, it will still be identified as PCA_NForests.
PCA	PCA_FL-ElevSlo	No forest cover, but above 50% slope, >1000 masl
PCA	PCA_FL-Rivbuf	No forest cover, no areas above 50% slope, >1000 masl, but part of the river buffer
PCA	Pancultural	PCA-cultural heritage, burial sites
PROD	FPlantation	Lands with Plantation Forest plantations (timber, fuelwood, medicinal, spices, non-timber)
PROD	Marginal	Lands with brushlands, grasslands or barren land
PROD	Agri-Perennial	Lands with Agri-plantations (agroforestry, home gardens, perennials, industrial crops such as rubber)
PROD	Agri-Annual	Lands with Agri-Annual crops, rangelands, aquaculture, fishponds, others
PROD	Abandoned	Lands with abandoned cultivated areas
PROD	Tourism	Lands tourism areas
PROD	Settlements	Lands with Settlements/built up
PROD	Agri-Perennial	Ancestral with Agri-plantations and perennials
PROD	Agri-Annual	Ancestral domain with Agri-Annual crops, livestock, others
Marine and Coastal Areas		
PCA	Waters_PA-SPZ	PA-marine - SPZ
PCA	Waters_PA-MUZ	PA-marine - MUZ
PCA	Waters_Tourism	Tourism areas

PCAPROD	SUBCAT	DESCRIPTION
PCA	Waters-FishRes	Fishery Reserve
PCA	Waters-DelEst	Delta/ Estuary
PCA	Waters-Lakes	Lakes
PCA	Waters-Seagrass	Seagrass beds
PCA	Waters-Reef	Reef systems
PROD	Waters-Mari	Mariculture Parks
PROD	Waters-Aqua	Aquaculture, fishpond
PROD	Waters-ComFish	Commercial fishing
PROD	Waters-local	Municipal fishing
PROD	Waters-Ecotour	Ecotourism Zone

After performing the overlay and tagging the broad land use categories and subcategories, the area calculation tool is applied again to ensure that the extent of the area is updated. After the necessary GIS work is done, the completed attribute table should be exported into a tabular format (CSV) to be opened in Excel. The purpose of exporting it in Excel is to make many people be engaged in examining the data because, most likely, more people are used to using Excel. In Excel, various summaries may be done using the pivot table tool. One of the key summaries would be to organise the data following the format shown below (Table 5).

This central table will need to be disaggregated based on watershed divide and administrative boundaries.

Some of the questions that need to be asked at this stage include:

- *What are the different sub-national governance levels that have the responsibility, authority, and accountability over the ecosystem and its EGS?*
- *What are the key provisions of policies or agreements that grant land or water use and resource use rights within the land and water?*
- *What are the on-site management responsibilities?*
- *Do these responsibilities include gender-differentiated rights and responsibilities, and how women for example, can be disadvantaged through existing land tenure and access mechanisms?*
- *Are there provisions on penalty over the misuse of the land or resource harvesting rights?*
- *How do we treat areas where land or water characteristics are identified as protection and conservation but are existing active resource use concessions?*
- *Are the governance jurisdictions of different ministries spatially specific?*

Table 5. Overall Summary of the broad land use categories and subcategories

MANAGEMENT CATEGORY	AREA
PCA	
PCA-PA-SPZ	
PCA-PA--MUZ	
PCA-NForests	
PCA_FL-ElevSlo	
PCA_FL-Riv	
PCA_Cultural	
PRODUCTION AREA	
FPlantation	
Marginal	
Agri-Perennial	
Agri-Annual	
Abandoned	

3. Identify the key ecosystems, and EGS from the R2R site, EGS users, and threats from natural and human-induced factors

This part of the analysis requires the identification of the key EGS and EGS users and mapping them. The key direct EGS include water for various purposes (households, commercial, industrial, energy in some countries), soil for agricultural production, forest products, recreation from unique and cultural attractions, fisheries not just for artisanal fisheries but even for the export of pelagic fisheries, and some minerals.

- a. List the ecosystem goods and services users within each of the watersheds. EGS users being referred to here are the enterprises that use the EGS as inputs to their production. Indicate also the EGS that is used. It would also be helpful when representing these different users on the map to categorise what kind of enterprises these users are based on the major product or service they provide. An example of a type of user would be a water service provider, agri-industrial farm, resorts, etc. This information about the EGS users is suggested to be organised using the table below. This format will make the joining of the location data of the EGS and the attribute table easier in GIS.

Table 6. EGS users

1 EGS_ID	2 Name of EGS User	3 EGS used	4 Enterprise Type
1	Vanuatu Beverage Ltd	Water	Beverage
2	Eratap Beach Resort	Water, scenery	Resort

- b. In mapping the EGS users, it is expected that one locates where the users get their EGS, as this is important in terms of the attribution of the EGS to a particular source area. So as suggested earlier, it would be best to locate these EGS users per watershed. It is also vital to have sex-disaggregated data on EGS users per watershed in these mapping and analysis tasks.
- c. The POI map that has been compiled for some of the PICs contains locations of major establishments. The POI data identifies locations of hotels and resorts that are one of the major EGS users in PICs and is often located in the scenic areas. The aesthetic offering of a place is one of the major EGS that is present in PICs. The POI can be used, reviewed, then features added or deleted.



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

After locating these EGS users, the point-in-polygon analysis will be done for the EGS users point map data and the map overlay result 1. The overlay will result in point data that will inherit the composite attribute table of map overlay result 1. Figure 9 illustrates the point-in-polygon overlay and its results. In this example the EGS and the EGS point data is overlaid on the Map overlay result 1.

Map overlay

- a. Prepare a map of the point location of the EGS users. EGS users are symbolised on the map using the enterprise type field with the PCA and production areas map as background. The boundary of the watershed should also be shown with the outline of its extent.

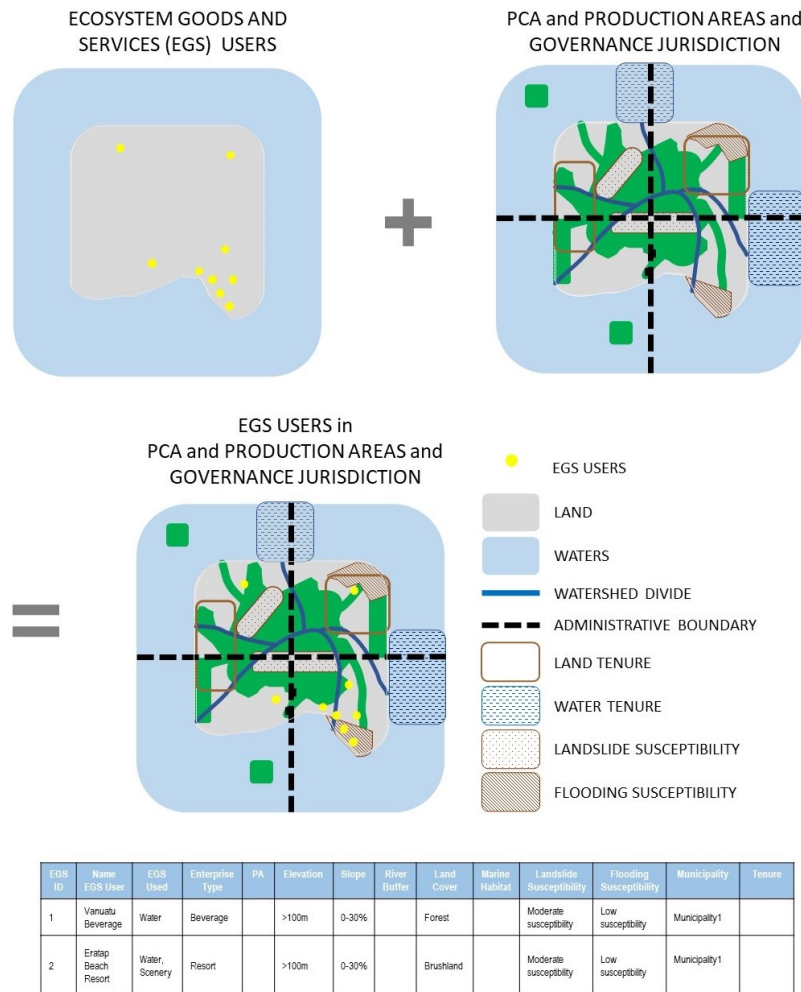


Figure 9. Sample point-in-polygon geometric and attribute table result

- b. The point-in-polygon map overlay attribute table will be exported as a .csv file. In Excel, a summary of the count of EGS in each watershed will be generated. The mapped location will help identify the critical watershed based on the number of users dependent on the watershed's EGS.

Demography

This part shows the spatial distribution of the population using the census data at the lowest level if it is available and helps in deciding the areas to prioritise for R2R.

- a. Basic demographic data (population, number of households, average household size, number of male and female, poverty rate, employment rate) are stored as columns of data for the administrative boundary attribute table. This type of population data means that the population is not discrete point data; the census data presents a summarised value for the extent of the administrative boundaries.

Demographic data will identify gender differences in poverty, employment, and unemployment to track positive gender impacts in the project.

- b. The built-up/settlement feature from the land cover of each country provides a more spatially explicit distribution of the settlement. Using the built-up area from the land cover map will mean no additional map overlay with the demographic data. We can get the coverage of the built-up area through the map overlay result 1, where the land cover was included in the map inputs. However, the demographic data will have to be done as choropleth maps showing the relevant population categories and mapping its distribution over the planning area.

Economic activities

- a. Major economic activities will be compiled as point features indicating the specific areas devoted to the following: major agricultural production areas, principal fishing grounds, aquaculture and mariculture areas, active mining sites, tourism sites, non-timber forest product gathering areas, and timber concession areas. Major economic activities to be segregated by gender, so there is an idea of who uses which resources at the site level.
- b. The point-in-polygon map overlay of the economic activities with the choropleth map overlay result 1 will be done. The resulting attribute table will be exported as a .csv file. In Excel, a summary of the count of economic activities in each watershed and within the broad land use categories will be generated.

Infrastructure support (economic and social services)

Different infrastructure features will be compiled following the list below.

- a. Roads
- b. Point or line feature of water infrastructure (sources of water for drinking or irrigation)
- c. Point location of various infrastructure data indicating the following:
 - o Educational facilities – daycare, elementary, high school, college and technical and vocational schools, indigenous learning system
 - o Road-related structure – bridge, culvert, etc.
 - o Agricultural support facilities – solar dryer, rice mill, buying stations, storage facilities, etc.
 - o Transportation facilities – airport, ports, bus terminals, airstrip, etc.
 - o Communication facilities – post office, cell site, radio transmitter, or others
 - o Government facilities – government offices, village hall, multipurpose centers, etc.
 - o Protective services facilities – jail, police station, fire control station, forest
 - o Health facilities – health stations/centre, hospital, cemetery, sanitary landfill, etc.
 - o Market – Public and private markets
 - o Parks/Recreational facilities – basketball courts, playgrounds, etc.
 - o Power facilities – Power sub-stations, transmission tower
 - o Religious/tribal facilities – churches, chapels, mosques, tribal hall
 - o Tourism support facilities – resorts, hotels, tourism information centre, view deck, etc.
- d. Point shapefile attribute table format:

Table 7. Format of the attribute table of the infrastructure data

INFRA_NAME	TYPE	CATEGORY
Name Center Market	Public market	Market
North coast Day care center	Day care center	Educational facility
Beachside RHU	Rural Health Unit	Health facility
Ilaya Multi-purpose hall	Multipurpose hall	Sports/recreational facility

- a. Similar to the rest of the mapped point features of economic activity and EGS users, the point locations of the infrastructure will be overlaid on the map overlay result 1 using the point-in-polygon overlay. The resulting attribute table will be exported as a .csv file. A summary of the count and type of infrastructure per watershed and within the broad land use categories will be generated in Excel.

Ongoing R2R-related projects and other initiatives in the R2R area

Data and location of ongoing R2R-related projects and other initiatives may be included in the spatial analysis. The analysis will enable the planners to locate the projects, consult with the stakeholders on what interventions are being carried out, and pinpoint possible opportunities for partnerships and collaborative activities.

4. Identify and map the threats in the R2R area that are affecting the health of the ecosystems, conditions of the EGS, EGS users, infrastructure, communities, and urban areas

Identify the major threats in the R2R area especially those that are negatively impacting the critical ecosystems and the EGS and locate them on the map. When mapping these threats, it is suggested to go through each land-sea form and review these upstream and downstream connections. The list below shows the identified significant threats culled from the six case study sites in PICs. Additional threats may be added if needed.

- o Degradation and urban expansion in watersheds, mangroves and coastal areas;
- o Silted rivers;
- o Pollution from off- and on-site communities and urban centres;
- o Overfishing in nearshore areas serving subsistence fisher folks;
- o Agricultural expansion but with declining soil productivity;
- o Susceptibility to floods and droughts due to climate change; and
- o Tenure issues in land and water area especially concerning encroachments and leasing in customary/traditional/native-owned land and seas;

A point-in-polygon will also be done for the threats with the map overlay result 1. A summary showing the count and kind of threat observed in each land-sea form and administrative boundary will be generated.

Outputs

Map overlay result 1 is a composite map that transformed individual thematic data into a new map. The resulting map combined the characteristics in a particular area and used this to organise the areas into broad land uses for management. For this to become a valuable tool for cross-sectoral comprehension of the givens and to agreeing to jointly plan and manage the land and sea, the following are the suggested steps and tasks in presenting these results:

1. Prepare each thematic map with a wider cross-sectoral audience. The main aim is to show what spatial data were considered and how these different spatial themes are distributed over an area. The map attribute that was agreed to be the factor to differentiate the protection and conservation area should be highlighted on the map.
2. Agreed upon broad land and water uses and subcategories should be prepared as a separate map that will show the protection and conservation areas and production areas map with watershed divides and administrative boundaries.
3. The basic summaries of agreed broad land use and its subcategories should be disaggregated per administrative and watershed boundaries. These statistical summaries help local government units situate themselves within these identified broad land uses. This summary will also come in handy when thinking of the general strategies supporting goals in conservation and development in a particular area.
4. Maps combining land cover and EGS users, economic activity, and threats should be prepared. These maps are useful to show the link between land cover/land use data and the kind of benefits and problems experienced in an area.
5. Prepare the choropleth maps of the population count, population density, and poverty incidence at the lowest administrative level with available data.

6. Prepare a map of the built-up area overlaid on the administrative boundary and land-sea boundary. This map is helpful to situate the areas that may be considered priority areas because these are where the population is congregating.
7. As support to the map of built-up area, a summary of the extent of built-up area per watershed and local government unit should also be prepared to gauge and visualise the size of the populated areas in each watershed and each local government area.

The presentation of the analysis results in this manner enables an integrated way of looking at the area's bio-geological, climatic, policy and governance, and socio-economic characteristics. It helps assemble into management units that consider the biophysical, socio-economic, and governance context too. It enables the users advocating for R2R to look at the potential area for R2R expansion by itself (existing implementation sites) and relating them to the adjacent areas.

The different maps suggested above could be appreciated and viewed as a tool to relate focal areas (i.e., existing R2R demonstration sites) to their adjacent areas when planning conservation and development. One good example is the case in Tagabe Watershed in Efate, Vanuatu. Applying the proposed R2R mainstreaming efforts in Tagabe Watershed could mean the inclusion of adjoining watersheds that benefit and contribute to the economy of the expanding urban centre of Port Vila. The current situation in Port Vila shows the inadequacy of water, which has pushed authorities to explore neighbouring watersheds as sources of water (Teuoma). Neighbouring watersheds may also decrease dependency on imported food in a tourist town and improve income in the peri-urban area of Port Vila in the process.



*Monitoring water quality in Mataniko River Catchment, Honiara, Solomon Islands.
Photo by Solomon Islands IW R2R Project*

SUB-GUIDE 2 (SG 2)

IDENTIFYING RELEVANT R2R INSTITUTIONS AND ESTABLISHING GOVERNANCE BODIES FOR STEERING, DIRECTING, SUPPORTING POLICY DEVELOPMENT, PLANNING AND IMPLEMENTING R2R STRATEGIES AT THE SITE, SUB-NATIONAL AND NATIONAL LEVELS



Joint board meeting for the National R2R and IW R2R Projects, Majuro, Republic of the Marshall Islands.

Introduction

In the context of this Guide, governance is defined as all modes and systems for governing all those activities of social, political, and administrative actors that can be seen as purposeful efforts to authoritatively allocate resources and guide, steer, control, coordinate or manage the pursuance of public goods (Kooiman 1993, Kjaer 2004 and Rhodes 1996), whether they are developed and enforced by markets, hierarchies, or networks (Kjaer 2004). The ridge to reef (R2R) as an approach to environment and natural resources (ENR) and climate change (CC) governance, attempts to match policy and institutional responses more closely with the spatial and temporal scales of natural processes necessary to maintain and enhance the properties (structure, composition, and functions) of the area to be managed or governed. R2R governance is considered as a subset of environmental governance. It specifically focuses on policies that would impact ridge to reef areas, the institutions that develop programmes for carrying out those policies, and processes for setting up various governance processes at different levels – national, sub-national and site.

In environmental governance, there is often a mismatch between how the areas are to be managed based on sound governance, especially on the delimitation and definition of administrative and political boundaries, versus how areas are defined based on ecological scales necessary for ecosystems goods and services (EGS) provisioning. Moreover, the jurisdictional scope where authority may be exercised does not often coincide with the scope of related anthropogenic activities that they are designed to regulate, particularly regarding managing negative externalities. In view of this, the issues, threats, and pressures in each area are the considerations that logically dictate the scale of the area to be acted upon. This is the logic underpinning integrated approaches to governance, such as the R2R approach.

Governance from an R2R approach encompasses the policies, institutions and processes to set up the inter/multi/cross-sectoral and inter/multi/cross-level collaborative systems to direct, guide, coordinate and complement actions necessary to protect, restore and regulate resource use within a given area, not necessarily coinciding with existing administrative and political boundaries, towards the sustainable utilisation of such resource base supporting inclusive development at the site, sub-national and national levels. Underlying these policies, institutions and processes that guide resource use are the diverse traditional designations and uses of resources, the traditional environmental knowledge and interpretations of resource use those local populations and indigenous user of resources understand and use. These unwritten rules of resource use and management define gender roles and gendered use of and access to resources.

Objectives

The outputs of SG 2 feed into the analysis of the existing situation, envisioned future, and strategies of the R2R plan, particularly in regard to policy and institutional reforms needed to underwrite the coordination and management of the strategies of the R2R plan; serve as baseline for developing the advocacy and social marketing strategies specific to each concerned actor within the defined land-sea form to be governed; and anchor the overall assessment of implementation progress and outputs and outcomes of various R2R initiatives at the site, sub-national and national levels of mainstreaming.

Users

The users of the SG 2 are the teams who will be engaged in advocacy, social marketing, and management (planning, implementation, and monitoring and evaluation) of the various R2R mainstreaming activities. This sub-guide lays down basic steps for carrying out the necessary governance analysis for the design, inception/mobilisation, planning and implementation of the R2R mainstreaming strategies.

SG 2.1 – Understand the baseline governance context

In the R2R approach, spatial analysis delimits the scale-effective governance unit and policy context necessary to address the issues, threats and pressures in a particular landscape, or seascape, or in land-sea forms. R2R institutional responses, being multi-sectoral and multi-level, or cross-scale and cross-level, often require new spheres of responsibility, accountability, and authority (RAA) backed by formal policy. The ideal integrating management or governance unit will often be that lowest level or smallest scale of demand aggregation, decision-making and problem-solving appropriate to, and demanded by, the set of considerations for a

particular issue or threat or pressure, consistent with the principles of subsidiarity and decentralisation. Nonetheless, to govern a seascape-landscape, policy and institutional reforms at the site level, and support from the national and sub-national levels may be necessary.

At the subsidiary or lowest level or smallest scale of demand aggregation for major EGS, decision making and problem-solving, inclusion and participation, are key considerations. This includes gender concerns with a view of the differential ways men and women use/manage resources and access EGS and benefits through the governance system.

After spatial analysis establishes that an R2R is best used to frame an ENR problem and its potential solutions, the existing governance structures and policies (statutory and customary) at various levels (national, sub-national site and even regional/international) must be reviewed to determine if they support an R2R approach to resolving or managing the identified ENR issue, threat or problem and/or to identify how positive or supportive features and practices within these existing structures can be maximised to support R2R approaches, to equitably benefit both men and women stakeholders. The following questions may be used to guide the review¹⁴.

General Questions:

What currently governs the area/ecosystem/landscape/seascape/seascape-landscape formation? Specifically, what are the policies, rules, and institutions with RAAs at the national, sub-national, site and even international/regional levels shaping actions that will guide the governance of the area?

Specifically:

1. What are the governance controls in place at the international/regional, national, sub-national and local levels pertinent to the seascape-landscape to be managed? What is the extent of their formality? Are the governing policies statutory (formal) or customary (traditions), or both? Are these formal and customary governing policies gender and socially inclusive? What is the coercive authority of these forms of policy control?
 - What related international normative frameworks (e.g., Micronesia Challenge, Blue Pacific, Pacific Community Strategic Plans) are mainstreamed by the country where the area to be governed is located? Which are the governance units (and at which levels) tasked with mainstreaming the provisions of the international/national regime into national, sub-national and local policies, institutional goals, operations and programmes, and budgets?
 - What national and sector policies, frameworks and plans govern environment management and resource use in the area? Who issued these policies and what is the nature of its enforcement power (this will depend on the country-specific legislative processes)? Do these policies mandate declaring certain areas as “set asides”, e.g., Protected areas, Mangrove reserves, Eco-zones, Special use zones, Private or Alienable and disposable lands, or others?
 - Likewise, what sub-national and local policies, frameworks and plans declare certain areas as local conservation area, critical habitat, critical watershed, waste disposal site, others?
 - What are the salient provisions of the international regimes, the national/sectoral/sub-national and local laws and what sectors or populations are affected by such provisions?

The policy areas¹⁵ to investigate, include, but are not limited to:

- a. Generating and sustaining the supply of EGS;
- b. Improving productivity of lands and renewable resources (in both public and private lands, and marine/coastal waters) for inclusive economic development;
- c. Optimising payment for ecosystem services (PES) by ENR-linked enterprises, including ecotourism and other social enterprises;
- d. Livelihood support systems to reduce poverty in terrestrial and coastal communities, with specific focus on women and vulnerable populations;

¹⁴ Adapted from the National Convergence Initiative for Sustainable Rural Development. 2013.

¹⁵ List adapted from Dolom et al. 2011.

- e. Providing critical social and economic support infrastructure;
- f. Regulating and enforcing agreed upon land use boundaries and allowed/disallowed sub-land uses and resource uses; and
- g. Restricting sub-land uses and resource uses in conservation areas as well as in areas highly vulnerable to climate change impacts and disasters.

A simple table as below may be used to capture the results of the review.

Table 8. Policies governing the area/ecosystem/landscape/seascape/seascape-landscape formation

Policy	Relevant Provisions	Systems of Interest (sector, population) that are Affected within the area and how	Coercive Power of the Policy (enforceable with legal penalties or not, or voluntary and non-justiciable?)
International Normative Frameworks			
National			
Sub-National (e.g., state or island)			
Local (e.g., Province, cities/towns)			

2. What are the issues, gaps, problems, challenges, or opportunities in implementing existing ENR laws in the seascape-landscape? Are there areas of overlap among policies; what are these and how can inconsistencies or contradictions be reconciled, and complementarities coordinated? Or if the issue or challenge has to do with unfunded mandates and weak enforcement, how can they be addressed? At the sub-national, local, and subsidiary levels, how can these existing ENR laws and policies, as well as weak enforcement of such laws and policies, be analysed/enhanced within the context of community participation and vigorous stakeholder engagement? A table like below may be used to guide the analysis.

Table 9. Challenges and opportunities in implementing ENR and other EGS-relevant laws

ENR Law	Issues	Challenges	Opportunities	Actions to Address Policy Issues and Challenges and to Leverage Opportunities
National				
Sub-National (e.g., state or island)				
Local (e.g., Province, cities/towns)				

Are there any policy gaps, i.e., issues and challenges related to sustainably managing the resources and EGS that are not covered by any existing law? What are these, and who appropriately should and can enact such law? In addressing policy gaps, the customary laws of resource use, existing user rights mechanisms and traditional environmental knowledge should also be analysed. This will help highlight key areas of participation/decision making for men, women and other communities of interest/stakeholders that can support new environmental laws, etc. The table below may be used.

Table 10. Policy gaps in sustainable management of EGS

Issues and Challenges that remain un-addressed	Provisions that are lacking in existing Policy Regime	Governance Unit and Level with the RAA to enact a law with such provisions	Stakeholders that potentially support the enactment of a new law, their source of power and sphere of influence	Stakeholders that will potentially resist the new law and their source of power and sphere of influence

3. Are there policies that operationally define the responsibilities, accountability, and authority to guide choices, decisions, and actions (CDAs) that govern the seascape-landscape? Who has the RAA for CDAs on the access, use, regulation, enforcement, charges, and fees for land, waters, and ENR assets in both public and private lands within the seascape-landscape? Are these RAAs backed by policy?
- What are the policy-declared lands of the public domain within the seascape-landscape? Who has the RAA to make the CDAs over these public lands? Who issues titles in public lands, and/or use rights?
 - What about over customary lands within the same seascape-landscape? Who makes decisions and has authority of use over customary lands?
 - Are there any tenure instruments issued within the geographic boundary of the seascape-landscape? By what policy and under whose authority?

Table 11. Relevant policies guiding the CDAs that govern EGS/ENR assets

Area	Policy Basis or Declaration	Resource Use CDAs that may be taken	Institution with RAA over the CDAs	Issues related to CDAs made
Public Lands				
Private Lands				
Lands Covered by Awarded Tenorial Instruments				

4. What are the land, water and resource uses in the various areas (e.g., protection and conservation area, production area, etc.) within the seascape-landscape?
- What are the allowed land, water and resource uses in the various areas by policy?
 - What are the disallowed land, water and resource uses in the various areas by policy?
 - What are customary use/resource sharing mechanisms within these areas?
 - What are the current land, water and resource uses in the various areas and are these uses policy-consistent? Are there any issues relative to the current uses? Who needs to make CDAs on these issues? What are the needs by whom to enable CDAs?

The following tables below may be used to summarise the findings.

Table 12. Summary findings A

Allowed Land, Water and Resource Use	Applicable Supporting Policies	Are current uses policy-consistent	Specific Issues related to current uses	Necessary CDAs to address issues	Who should have RAA to make the CDAs
Protection and Conservation Areas					
Production Areas					
Ecotourism Areas					
Other Areas (specify)					

Table 13. Summary findings B

Disallowed Land, Water and Resource Use	Issues in Current uses - How are current uses policy-inconsistent	Applicable Policies pointing out Violations	Necessary CDAs to address issues	Who should have RAA to make the CDAs

Pertinent to lands, waters, and resources in the public domain within the seascape-landscape, the analysis assesses how they are:

- currently used versus intended as defined by practice and local and national policies for managing and regulating uses to support development; and
- allocated, managed, and governed in the context of the larger system and its sub-systems, e.g., adjacent local government units, land management and other areas, larger watershed ecosystems, and local and sub-national (provincial, regional, island, state) economies.

The challenges and threats posed by harmful uses must be assessed. Regarding private lands, the same assessment should be done based on ownership rights conferred by customary law. But the analysis should still emerge uses that are harmful and that, if the lands were in the public domain, policy inconsistent.

The opportunities for improving land, water and resource use and management, conserving biodiversity, restoring degraded areas, adapting to, and mitigating climate change-related impacts should be also identified. As well, opportunities for establishing payment for ecosystem services (PES) systems in public lands should be explored.

The analysis will emphasise and show the link of environmental governance with the governance of socio-economic programmes in the context of existing traditional and social domains. The importance of the watershed, sub-watersheds, natural forests, coastal and marine areas, habitats, location of the local political governance units straddled by the seascape-landscape and their dependence on the EGS key to the local, provincial, and regional economies should be highlighted.

The results of the analysis will yield needed management policy actions and institutional reforms to address harmful and unsustainable uses, and insights as to how social marketing campaigns can be designed and implemented to be well-targeted to mobilise support and action behind the necessary strategy responses. The analysis will also highlight what governance processes need to be established to ensure coordination, collaboration, and complementation of R2R initiatives.

5. Are there existing programmes and projects addressing the issues pertinent to current resource uses? To what extent are they coordinating with each other? What are the consequences of cooperative action on the state of resources within the area? What are the consequences of fragmented action on the state of resources within the area?

Table 14. Existing programmes and projects to sustainably manage the EGS

Programme or Project	Objectives of the Programme or Project	Implementing Actors (Lead, members, and other stakeholders)	Are they coordinating with other programmes and projects within the area?		Reasons for not coordinating with other programmes and projects	Consequences on the Resources of (Non) Cooperation or (Non) Coordination with other programmes and projects	
			Yes	No		Benefits	Disbenefits

What other programmes and projects are needed to implement policies and address issues that are not acted upon?

Table 15. Programme gaps in sustainable management of EGS

Issues and Challenges that remain un-addressed by programmes and projects	Policy Supporting programme/project responses	Governance Unit and Level with the Mandate to fund and implement such programme/project	Stakeholders that potentially support the programme/project, their power and capacity to contribute resources	Stakeholders that will potentially resist the programme/project, their source of power and sphere of influence

Being a mode of collective action, R2R requires understanding of, on the one hand, the complementarities, and synergies of coordinated collaborative action, and on the other hand, the trade-offs, missed opportunities, inefficiencies of uncoordinated overlapping and redundancies of uncoordinated fragmented actions. R2R requires a process that is iterative, demand-driven, participatory, and transparent to decide the allocation, management, and control (monitoring and evaluation) of actions and investments in a seascape-landscape, encapsulated in a plan or set of plans anchored on an over-all vision, mission and goals (VMGs) for the governed landscape/s-seascape/s.

It is best that all possible stakeholders, as defined by the spatial analysis, and including especially the local communities and ethnic groups (both men and women) resident in the seascape-landscape, with their respective interests and claims are involved as early as the situation analysis stage. Stakeholder engagement needs to be a) inclusive and participatory, allowing for gender, age, and ethnic groups to be meaningfully engaged; and b) sensitive to situations which could deprive or disallow the engagement of certain communities or groups, including women. The situation, expression of interests and ideals of each stakeholder group, as well as their responses to the issues, challenges and opportunities must be reflected in the plan/s. Moving forward, there must be clear understanding of the different agreed roles and responsibilities each stakeholder will play to implement the plan and achieve its targets.

SG 2.2 – Strategise to generate the appropriate policy and institutional responses

The results of the situation analysis relative to governance and institutional development should be able to conclusively assess:

- whether or not the existing governance system is the appropriate scale-effective system (including supporting links with other levels),
- requirements to make the CDAs to address the ENR problem and manage the responses,
- and if the policy regime buttressing this system is adequate to support the CDAs to be made by those with the RAAs.

a. Improving the Enabling Policy Context

The challenges relative to deficits in policy when identified can be worked on, accompanied by lobby and advocacy harnessing evidence based on science, local realities and indigenous knowledge and undertaken within the context of strategic social marketing and communication. These policy deficits may be:

- a) fragmented sectoral policies that lead into overlapping, redundant RAAs
- b) irreconciled, contradictory policies that lead into implementation gridlocks and paralysis
- c) weak policies that do not create the dis/incentives as intended
- d) weak enforcement
- e) unfunded mandates, without budgets and programmes and projects to implement the policy
- f) lacking policies that lead to unrestrained ENR exploitation or to the possibility that CC impacts are not averted or prepared for or reduced, including international or regional agreements that are not mainstreamed and localised.

Depending on the policy development processes (legislative or administrative) in the country, it must be ensured that the policy be formally enacted by the appropriate legislative/executive unit and localised by the corresponding bodies in the subsidiary units.

Example: The Policy/Legal-Institutional Context for Managing the Tagabe River Catchment Area (TRCA) in Vanuatu¹⁶

The TRCA Context:

The Tagabe River is the only current fresh water source of Vanuatu’s capital city, Port Vila. The TRCA is located within the Port Vila Municipal Council C boundaries and the Shefa Province Planning area. Tagabe River itself is part of the Efate Land Management Area (ELMA), a proposed protected conservation area, located in the central region of Efate Island. Over six rivers are sourced within the ELMA, one of which is the Tagabe River.

Key Findings of the Governance and Policy Analysis¹⁷

Based on the spatial analysis, what are the most likely administrative sectors to be involved in governing the TRCA for sustainable and quality water supply?	<p>The national Departments, and their counterparts at the sub-national and local levels in charge of:</p> <ul style="list-style-type: none"> - Environment and Natural Resources - Water and Sanitation - Public Works (for social infrastructure) - Forestry - Agriculture (including Fisheries) - Tourism
Which political governance units at which levels are likely going to be involved?	<ul style="list-style-type: none"> - The Efate Land Management Area (ELMA) - Shefa Province - Municipality of Port Vila - TRCA
Are there unified or sectoral national policies, frameworks and plans with the force of law supporting the sustainable management of the TRCA?	<p>Yes, they are:</p> <ul style="list-style-type: none"> - <i>The Vanuatu 2030: The People's Plan (National Sustainable Development Plan 2016 to 2030) specifically the environmental pillar which seeks to ensure a pristine natural environment on land and at sea that continues to serve the country's food, cultural, economic, and ecological needs, and enhance resilience and adaptive capacity to climate change and natural disasters.</i> - Vanuatu Infrastructure Strategic Investment Plan 2015 – 2024 - National Environment Policy and Implementation Plan 2016–2030 - National Waste Management and Pollution Control Strategy and Implementation Plan 2016 – 2020 - Other sector plans, and annual plans and work programmes of line ministries and local authorities elaborating on the policy objectives of the People’s Plan including for conserving biodiversity, climate change adaptation and mitigation, disaster risk reduction and management, land degradation, sustainable forest management, and securing international waters
Are there national policies that lay the basis for decentralising governance of the TRCA?	<p>Yes, they are:</p> <ul style="list-style-type: none"> - The Decentralisation and Physical Planning Acts and - The National Land Use Framework - Both mandate the decentralisation of land use decision-making and enforcement. They support the embedding of land and environmental policies into provincial and municipal development plans - The Water Resources Management Act No. 9 of 2002, to protect the quality and quantity of Tagabe River, has declared and established the 25.7 km² Matnakara Water Protection Zones (MWPZ). It also provided for that in the TRCA, a 20-meter buffer zone be established between riverbanks and buildings.

¹⁶ From findings of the Consultancy Team. Guiang et al. March 2021.

¹⁷ Summative and Partial based on available information.

<p>Are there sub-national and/or local and/or site-level policies cascading national policy supporting, or independently directing, TRCA management?</p>	<p>Yes, they are:</p> <ul style="list-style-type: none"> - Zoning plans and proposals are formulated by the concerned municipalities, provinces, the Department of Lands, the Department of Local Authorities, in consultation with stakeholders. - Port Vila has declared the Matnakara Water Source as a water protection zone and considers any unapproved activities within the water protection zone as an offence. - The Tagabe River Management Plan (TRMP) was approved and launched as a national document. The TRMP acknowledges the importance and need of connecting upstream and downstream activities to ensure the health of the whole catchment. It is 2-phased: Phase 1 - 2017-2021 to protect the upper catchment to secure water for Port Vila; Phase II - 2022–2030 to sustainably manage the lower catchment.
<p>Are there any policies, regardless of level, dealing with private and customary lands within the TRCA?</p>	<p>Yes, they are:</p> <ul style="list-style-type: none"> - The country’s Constitution prescribes that the Malvatumauri (National Council of Chiefs), the peak organisation providing advice to the Government on <i>kastom</i> values and practices in Vanuatu, must be consulted on all matters related to land. - The Customary Land Law provides for the determination of custom owners and the resolution of disputes over ownership of custom land by customary institutions.
<p>Are there remaining policy gaps to sustainably managing the TRCA for water provision?</p>	<p>Yes, they are:</p> <ul style="list-style-type: none"> - Both the Shefa Province and Port Vila have not yet passed Planning Regulations and by-laws, leaving developments along the Tagabe River largely unregulated. The by-laws are currently in draft form. The draft proposes an amendment to integrate regulatory provisions for the TRCA. - For Shefa Province, a provision on a 20 m radius protected area around the water source and a requirement for a permit for any proposed works in this area - There is a Shefa Strategic Plan, but it is unclear if this is the same as the local development plan or not, or if it integrates aspects of the TRCA Management Plan. - Objective 6 of the National Infrastructure Plan highlights the desirability of developing provincial master plans for water infrastructure. In particular, the Port Vila master plan needs updating but its priorities only include roads, drainage, and sanitation. - Currently there is no legal protection of the ELMA. With potential to impact the Port Vila water supply, it is important to additionally review and regulate activities in other adjoining rivers and catchments such as the ELMA, to ensure that the water supply is not affected.
<p>Some Policy Actions that may be taken to manage the Tagabe River from an R2R Approach</p>	<ol style="list-style-type: none"> 1. Support the review and update of the TRMP to guide Phase 2 Management 2. Strengthen the science-policy interface. Provide inputs into policy approach to, and policy for, establishing marine and terrestrial PAs, declaration of open and closed fishing seasons in the area based on the modelling study demonstrating the inter-connectedness and externalities between land cover, urban settlement, pollution, and coastal/marine productivity. Also use the study results as evidence-based input to the accompanying social marketing campaign. 3. Provide inputs into, and/or help draft and finalise, the local by-laws, providing for the regulation and management of the TRCA; Lobby and advocate for its passage 4. Provide inputs into, and/or help draft and finalise, the Shefa and Port Vila Strategic Plans ensuring the VMGs of the TRMP are incorporated 5. Provide inputs into, and/or help draft and finalize the updated Port Vila, and Shefa Provincial, Master Plans for water infrastructure making sure they take into consideration that any planned regulation, protection, and management of the TRCA are aligned with the TRMP. 6. Lobby and advocate for the formal declaration of the ELMA as a protected area.

b. Establishing the Institutional Arrangements

Policy is all very well but without an enforcement or compliance capability, R2R will not deliver on sustainability and resilience outcomes. Structures, mechanisms, and processes are necessary to ensure that prioritised strategy choices are implemented effectively and efficiently. The results of the overlay of the spatial and policy analyses will emerge the policy-designated land, water, and other resource uses into various forms of sub-landscape conservation, protection, restoration, and sustainable management e.g., watershed, protected area, tenure, business, local resource management unit, and farm, plans.

The governance task then becomes identifying the governance units and their cooperation arrangements that will enforce and support the land, water, and resource use zones at various levels – site level/local, sub-national and/or national. To ensure enforcement and compliance, governance units at various levels need to be inclusive, considering traditional institutional arrangements, the roles of men, women and vulnerable members of the communities and already existing cooperation arrangements.

Deciding the governance units, and making them effectively and efficiently functional, may include the following considerations:

Regional Level Support for R2R

It is anticipated that regional organisations such as the Council of Regional Organisations in the Pacific (CROP) will have a role in mainstreaming R2R into governance policies, processes, structures, budgets, and programmes/projects of PICs. These may include:

1. Facilitating knowledge exchange on R2R because it is reasonable to expect regional organisations to easily access global knowledge on R2R and all approaches within its rubric.
2. Mobilising international technical assistance for R2R mainstreaming in PICs in response to supply (advocacy) and demand driven initiatives or providing strategic technical and scientific R2R guidance during mainstreaming and managing interventions at the sub-national and site levels.
3. Identifying emerging international best practices and innovation for possible adaptations in PICs through the R2R mainstreaming processes.
4. Advocating for, and as necessary, facilitating external funding for the conduct of comprehensive spatial analysis of the most important sea-land forms (national, state and landscape levels) from the perspective of the most important EGS in each PIC. These comprehensive spatial analyses should be offered for incorporation into national and state plans and advocated by the regional organisations to become the basis for policy and programme development at the national, sub-national, island and local land and sea use.
5. Facilitating donor coordination on R2R programmes and projects within the region and for each PIC based on the comprehensive spatial analyses, including influencing phasing, site selection, intervention design and financing within each PIC (based on a consideration of objective need and practical political wherewithal) to protect the most important EGS in each PIC.

The CROP seems fit for purpose to play the role of regional advocate, coordinator, innovator, knowledge exchange facilitator and TA provider and fund mobiliser for R2R in the Pacific Region. Its goals are consistent with the ultimate goals of the R2R approach – sustainable human development and resilience; its members already work on the same sectoral themes of an R2R approach to natural resources, climate change and disaster risk governance; and it is already a platform for addressing key emerging and on-going regional priorities of cross-cutting nature that require convergent and collaborative analysis, decision-making, and action. The CROP also represents the thinking of the scientific, political, and civil society groups¹⁸.

National R2R Coordinating Unit

While a subsidiary management unit is ideal for the direct governance of land-sea areas, decentralisation is only possible if, in the first place, there is a central or higher policy basis supporting the devolution of governance to lower levels. Moreover, national sector ministries and their field units (at state, island, land management area, region, province, etc.) are probably much more effective in facilitating sector policies to be more supportive of site level R2R initiatives, aligning resources to complement other sectors, providing policy and technical advice, recurrent financing from national and sectoral budgets, capacity building and monitoring and evaluation support (M&E) support.

18 Council of Regional Organisations of the Pacific. February 2019f

In identifying and organising the national level R2R coordinating unit, whenever possible, existing structures, mechanisms, and processes that are “fit to mandate” must be leveraged or built upon. This unit is ideally a top-level cross-sectoral or convergent body intended to provide strategic policy, programming and financing coordination and direction country-wide. It will need to be composed of Ministers or Cabinet Secretaries, with the RAAs to see to the achievement of the country’s cross-sectoral and ultimate resilience and sustainable development goals. The unit will align and coordinate policies, programmes and financing across sectors and levels of governance, and from an R2R approach, facilitate complementarities, manage trade-offs and externalities, avoid fragmentation, redundancy, and duplication of efforts, and focus attention on areas where the combination of science and need logically dictates, towards supporting management of the seascape-landscape.

Example of a National R2R Coordinating Unit: Palau¹⁹

In Palau, the Inter-Ministerial Committee (IMC) that was set up with the assistance of the IWR2R and STAR Projects is aimed at improving integrated resources planning or R2R outcomes. Palau operationalised this intended functional role by utilising existing planning and coordination mechanisms, strengthening these rather than organising a new structure. Its joint IWR2R and STAR IMC is appropriately chaired by the Minister of Natural Resources, Environment and Tourism (MNRET) that functions both as an IMC and Project Steering Committee. It coordinates programmes/projects across the natural resources, environment, agriculture and fisheries and tourism sector and steers STAR and IWR2R operations. The joint IWR2R and STAR IMC help stakeholders see the connection of different activities and projects.

Cross-sectoral coordination is done to ensure all projects signed on to by the MNRET are aligned with, and add value to, national priorities and goals, and to advancing national and local capacities for sustainable NRM and tourism. Cross-project coordination is done for more efficient institutional resources management, i.e., avoiding duplication, rationalising the engagement of staff/stakeholders, optimising resource sharing and consolidating contributions to shared goals.

The members of the IMC are also members of the National Environmental Protection Council (NEPC). The NEPC consists of all ministries of Palau, e.g., those that deal with environment, the EQPB, which deals with permitting for development, the Coral Reefs Center, etc. Its purpose is the coordination of environmental projects, and the prioritisation of incoming environmental projects for the administration. The Chair of the NEPC is the Minister of MNRET. This facilitates effective communication and coordination.

The IMC also has effective civil society representation. Most of the members of NEPC are also members of the Environmental Consortium. This Consortium includes private individuals, industry and private organisations, and civil society organisations, including the Palau Conservation Society, which sort of serves as training ground for government officials.

To further institutionalise the R2R and programmatic approach in NRET governance, an Environmental Planning and Coordination Unit (EPCU) has been established within MNRET, although it has yet to be formalised. The unit will exist if there are projects. This unit will coordinate and manage all environmental projects.

¹⁹ From findings of the Consultancy Technical Report No 1: Completed Documentation of Various National (and Regional) Sustainable Development Planning Processes and Strategic Frameworks.

Subsidiary R2R Steering Unit

Based on the bio-geophysical and climatic features, governance systems, and experiences and lessons from testing R2R in the PICs, the sub-national governments are the emerging possible subsidiary locus in planning and carrying out R2R mainstreaming strategies that will support national policy initiatives and respond to the needs and opportunities at the site level with local stakeholders (tribes and villages, men and women EGS users and urban consumers, customary land and coastal/marine area owners). Governance which is decentralised to the lowest appropriate subsidiary level, with effective and inclusive representation from those directly living and using the resources is critical. Decentralising governance to the lowest level, will also consider land and seascape ownership, access to use and traditional resources, and valuation mechanisms based on gender analysis. The closer the management is to the ecosystem, the greater the responsibility, ownership, accountability, participation, and use of local knowledge (CBD, no date).

Suggested Functions of the Subsidiary R2R Steering Committee

R2R steering committees are organised with the intention of coordinating and directing collaboration, complementation and partnerships among national agencies, sub-national and local governments, private sector, and communities. Just like their counterpart at the national level, they coordinate and direct R2R policy, financing and programming into the seascape-landscape and its other connected ecosystems.

In addition, they will often have oversight and steering functions over programmes and projects in the governed seascape-landscape. In this regard, the committee shall decide the programmatic and strategic pacing or phasing of programmes and projects, approve proposals for funding or investments, allocate budgets, decide matters relating to planning, regulation and enforcement, protection, conservation, sustainable utilisation, or the general administration of the seascape-landscape in accordance with the management strategy or plans/s, and confer incentives to compliance.

In addition, the Committee will have the function of liaising closely with local community groups including women, youth and men groups, local community leaders, landowners and CSOs already working on resource use and management at the provincial and community levels.

A crucial function of this committee is conflict management or facilitating the adjudication of disputes stemming from the various interests of the stakeholders. Unless the committee is vested with formal adjudication functions by law, it can mainly facilitate and mediate negotiations in respect of applicable statutory and customary laws (see further sub-sections 3.3 and 3.4). In this case, it is the appropriate formal judicial units that will formally arbitrate and render the decisions.

Suggested Composition of the Subsidiary R2R Steering Committee

The R2R steering committees at the subsidiary level should build on existing institutions or mechanisms for convergent collaborative action. Their composition must represent the voices of all relevant stakeholders or interest groups. They may include:

- The highest-ranking political official or the highest-ranking administrative-executive bureaucrat in the subsidiary unit, as Chair
- The highest-ranking traditional leaders of all tribal or ethnic communities or clans within the area as Co-Chair
- The next highest-ranking political official or the next highest-ranking administrative-executive bureaucrat in the subsidiary unit as Vice-Chair
- The chief executives of all local government units within the area
- One technical representative each from field units of the relevant national government agencies
- One representative each from accredited non-government organisations operating or with operations within the area
- One representative each from local community organisations.
- A women and youth representative
- Landowners' representative/s

If there are co-equal officials within a position, the committee may decide to have an election system, or all may agree to periodically rotating the position (among co-equals).

Site-Level Project Management Unit

All the stakeholders must either be represented or participate in decision-making, but not all will engage in site-level management. Setting up and mobilising well qualified, committed and properly incentivised project management teams/units is key to the on-site managers carrying out their tasks of establishing working relationships with communities and other partners. It will enable coordination, resource mobilisation, site level mobilisation, providing on-site assistance, leading, and directing the implementation of the management strategies, and monitoring and analysing implementation progress to inform adaptive management.

Adaptive management should be undertaken by those with the capacity to implement the decisions. There will be many different aspects of ecosystem management that will involve different RAAs. Effective integrated ecosystem management may require multi- and inter- disciplinary professional and scientific expertise, as well as local knowledge and experience. Capacities may need enhancement for those involved in various aspects of management to better fulfil their roles, especially when new tasks from new management strategies and institutional arrangements are introduced.

The experience of the IWR2R and STAR projects, for instance, shows the value of a mix of capacity building strategies involving more in-depth training combined with on-site coaching and assistance, especially before and during the integrated planning and implementation activities. It is a valuable investment in improving local and national capacities and increasing the local supply of R2R specialists and practitioners and institutional providers. Moreover, the experiences show capacity building involving collaborative work among international experts and institutions and the local counterparts in specific and concrete areas of site-level work, is useful.

Formal Legitimation and Institutionalisation of Governance Units

Towards institutionalisation, the R2R institutions and mechanisms are best created or re-organised by law by the appropriate legislative body at the appropriate level. The appropriate legitimating instruments may contain:

- Identification of the sub-structures within the cooperation infrastructure that support and co-ordinate decision-making and actions as well as manage the actions
- Terms of reference of those sub-structures and their members clearly and specifically defining RAAs over CDAs, and linking RAAs to higher level sectoral and inter-sectoral plans and targeted outcomes
- Provisions for continuing relevant capacity development and technical assistance for the sub-structures.

Legitimating instruments will have varying coercive power, and the appropriate instrument must be chosen, as feasible and acceptable to those concerned. By hierarchy of coercive effect, the possible legitimating instruments may include:

- National, sub-national and local laws, whether statutory or customary (which policy by level or customary-statutory consideration has more precedence and potency in the seascape-landscape is country-dependent)
- Executive Orders at the various levels of governance (again, which order by level or customary-statutory consideration has more precedence and potency in the seascape-landscape is country-dependent)
- Resolutions will have persuasive but not coercive effect
- Strategic Management Frameworks and Plans will provide guidance and have technical-rational persuasion, but unless backed by law, will have little coercive effect
- Memoranda of Understanding and Agreements, Partnership Agreements explicitly spelling out agreements linked to financial, and work plans unless backed by policy, will have persuasive but not coercive effect
- Guidance documents, operational manuals, criteria for CDA, unless backed or embedded in law, will provide basis for operations but will not in themselves (dis) incentivise compliance
- Terms of Reference of RAAs will guide action, but unless backed by formal/official designation or order by the authorised entity will not have coercive effect (it is best that the RAAs are linked to work unit credits or to a credentialing system for incentivising, remunerating, or rewarding work in mother organisations).

There is not a one-size fits-all for what sort of institutional arrangements and policy support are most effective and there is no hard and fast rule for determining the appropriate choices (see further below, sub-section on Governance, Advocacy and Social Marketing). All institutional arrangements and building social capital organically require time and shared experiences. But it is always better when organic cooperative arrangements operate under the shadow of formal policy basis.

c. Conflict Management

There are baseline conditions that make governing from an R2R approach potentially conflict-ridden, as can be uncovered from the situation analysis:

- Mismatches in the bio-geophysical scale and scale of human activities to be regulated and managed and the politico-administrative jurisdictions that can govern them.
- Multiple stakeholders (on-site communities, customary/traditional land, and sea owners, EGS users, local governments, civil society, local leaders, among others) that will have different, often competing, interests relevant to the various aspects of managing the seascape-landscape.
- Existing traditional mechanisms and systems, which in many countries effectively leave women/youths out of decision making and participation in any community development or interventions.
- Policies that are equally authoritative and confer ownership and use rights that could sometimes be irreconciled or inconsistent.
- Policies have varying distributional consequences on different groups of people and many of them have livelihoods that are ecosystem- and natural resources- dependent, but having limited political and economic influence, or may be marginalised by the current market/economic systems.
- Policies may sometimes provide perverse incentives for unsustainable management of ecosystems or may disincentivise sustainable practices by those with direct ownership and control over the use of the land because they do not receive benefits from maintaining natural ecosystems and processes (CBD, no date).

The logical strategy is to look for all least common bargains where clusters of claims, stakes and interests converge. In addition, benefit sharing mechanisms must be developed at the outset and this should either target collective benefits to communities or individual benefits to landowners or lease holders of land, for example. Community benefits in this case could include community pooling of resources/trust funds, which in the long term, will be inclusive of men and women and all other members of communities. And here, couching the narrative of environmental and natural resource use and management within the economic context is crucial. The interconnectedness between ecosystem stability, EGS provision and resource-based development must be made explicit, in terms understood by each stakeholder. The benefit and cost streams flowing through this interconnection from source to provider to user and consumer must be well-appreciated in concrete ways by those concerned, such that there is a realisation that:

- costs must be borne and spread out but not externalised, and
- benefits must be realised and distributed commensurately and more equitably along the flow.

It must also be shown that certain trade-offs and some sacrifices should be made for all stakeholders in the stream to benefit, or that if the trade-offs and sacrifices are not taken by those concerned, that the whole benefit stream will inevitably collapse or dry up. Here is where knowledge managing social marketing can be most instructive. Scientific research backed by experiential local knowledge can model the causal relationships between human activities on an ecosystem or EGS and its consequences on the stability and provisioning capacity of the ecosystem or EGS, to provide the underlying evidence for required governance actions. Some of the most important knowledge management tools that may be used to support conflict management include:

- EGS valuation,
- Modelling studies and
- Historical and Trend Resource (Quality and Quantity) Analyses.

Some Innovative Country Examples on Conflict Management in Practice²⁰

In Samoa, 80 percent of the land is customarily owned, making policy enforcement for catchment management very challenging. The trade-offs involved, conflicting uses and stakes between customary landowners, conservationists, tourism operators and informal settlers must be seriously dealt with because resolving these is crucial to implementing any landscape-seascape management plan, enforcing the zones, and sustaining the results. Both the IWRM and IWR2R experiences are instructive in terms of innovating strategies of conflict resolution, trade-off analysis, incentive measures to deal with land ownership rights.

During IWRM, the government was able to negotiate the protection of over 40 hectares of native forest owned by the Catholic Church, at the summit of Gasegase catchment behind Apia. This land is at the beginning of all the river sources in the catchment that flow to Apia providing water for the population. The Catholic Church Land Board (CCLB) had decided to sub-divide that land and sell to the public for housing and farming. Not only did the Samoan Government endorse its protection, but it also planned to buy the vulnerable areas for rehabilitation and protection, and it is currently negotiating the compensation which alleviated major concerns in the control and outcomes of protection and restoration investments²¹.

Also, during IWRM, the Samoan Government through an EU budget support for the Water Sector, decided to purchase critical private lands for public management. It committed to the purchase of 1200 acres for inclusion in a Watershed Conservation Zone; of which 82 acres have been purchased and 32 acres fenced-off and replanted using a community engagement approach.

In FSM, expert policy analysis provides some basis for innovatively dealing with land tenure and ownership issues, as follows:

- Patterns of public and private ownership over land and aquatic areas vary among the FSM states. In Pohnpei and Kosrae, land is both privately and state owned, while aquatic areas are managed by the state as public trusts (Doran 2004). In the traditional economy, land is not a commodity to be sold or traded. However, the attitude in some areas towards land is changing, with sales and trades taking place—as well as leases—especially near centres of development (FSM 1997, page 9–10).
- Land issues are conspicuously absent from the FSM constitution—a fact that cedes almost total authority over land to the individual states - “Bulk of the power and legislative authority of government resides in the states. Most of these powers are reserved exclusively to the states, but some may be exercised concurrently by the national government” (Doran 2004). Another expert analysis establishes that the FSM Supreme Court’s position “plainly confirms that regulation of inheritance and land were to be state powers” (in Nahnsen, at 107; II J of Micro. Con. Con. 814; SCREP No. 33 (Oct. 10, 1975, as cited in Doran 2004).). Thus, under the national Constitution, state governments essentially have exclusive power to deal with such local issues as land, the environment and conservation within their respective jurisdiction—including the territorial sea, lagoons, and rivers (John R. Haglegam, The FSM Constitution and the 2001 Constitutional Convention; see also, *Kapas v. Church of Latter-Day Saints*, 6 FSM Intrm. 56, 60 (App. 1992) (noting that a strong presumption exists under FSM law for deferring land matters to local land authorities)” (as cited in Doran, 2004).
- There appears to be no legal authority in the FSM that directly involves—or in fact even mentions—the use of “conservation easements”. Easements, however, are a well-established interest in property, created when a “nonowner” possesses positive rights (to do something) or negative rights (to prevent something being done) over another’s land. Thus, to the extent the common law regarding easements does not conflict with national and state laws—or with local laws, customs, and traditions—it is valid legal authority throughout the FSM (FSM Const. art. XV, § 1; 1 FSMC § 205; see also, *Pohnpei v. Mack & John*, *Pohnpei v. Leopold*, 3 FSM Intrm. 45, 55 (Pon. S. Ct. Tr. 1987) as cited in Doran, 2004). Easements for private conservation are in effect possible and can be negotiated.

20 Semisi, S. (2015) IWRM in Samoa: an achievement story. Building Capacity for IWRM Leads to Successful Catchment Protection. <https://www.pacific-r2r.org/sites/default/files/2020-03/GEF-Pacific%20IWRM-Achievement-Story-Samoa-1.pdf> .

21 Pacific R2R Project. (no date). GEF Pacific Ridge to Reef Programme: Samoa National R2R Programme Document. Retrieved from <https://www.pacific-r2r.org/sites/default/files/2020-03/Samoa.pdf>

d. *Setting up the Mechanisms for Accountable, Inclusive and Transparent Decision Making*

The objectives of R2R, and their required management strategies, are a matter of collective choice and action. They cannot be imposed unilaterally, despite the urgency of the situation, and can only be arrived at through consensus informed by scientific and experiential evidence and based on negotiations and dialogues including all concerned stakeholders. In these negotiations, the bottom line that needs to be highlighted is that deriving economic benefits and attaining environmental stability and quality are not mutually exclusive or irreconcilable, provided that all interests are considered and properly aligned with incentives and benefits. An important component of transparent and accountable decision making for communities will be the need to manage risks and expectations in the early stages of the projects. GESI mainstreaming at all phases of any project will ensure the early inclusion of women, youths and other vulnerable groups and the managing of risks and expectations that may arise in later stages of the projects. Decisions should result in better communication/understanding, more coordinated action, and ultimately self-accountable, self-responsible and self-driven compliance.

As repeatedly reiterated in this Guide, decision-making at all stages of the R2R programmatic cycle, should be inclusive, accountable, and transparent. Decision making in PICs is not straight forward as this will always involve dealing with traditional decision-making mechanisms, which in many PICs leave out women, youth, migrant communities, and other vulnerable groups, and include institutional structures which do not allow open discussions with traditional leaders. The following are suggested attributes of a sound decision making system or mechanism:

- Inclusive representation in decision making and steering bodies.
- Leveraging existing authority structures, whether political/administrative or traditional/customary.
- Use of participatory methods for planning, monitoring and implementation.
- Clear protocols for decision making (decision criteria, process how decisions are arrived at, who are accountable for what decisions and to whom for the consequences), including formal documentation protocols.
- Extensive and intensive use timely evidence from scientific studies and experiential knowledge communicated through social marketing strategies, noting that action and compliance pursuant to any decision depends on each stakeholder's capacity to understand and apply the communicated knowledge.
- Gender inclusive decision making, which includes women and other vulnerable members of the communities.
- Early identification and managing of risks to traditional decision-making mechanisms.



Fiji Ministry of Environment and Waterways Permanent Secretary Joshua Wycliffe welcomes participants to the 4th Regional Steering Committee meeting, Nadi, Fiji 2019. Photo by Navneet Lal

SG 2.3 – Relate policies and governance processes in crafting advocacy and social marketing campaign

Policies and institutions are stable systems because in a democracy, they are arrived at through consent of at least the majority, for purposes targeted at the widest swath of the common good. Thus, they are embedded in well-entrenched interests and institutionalised systems for delivering on these interests, and any change will not be easy to introduce. This is the reason advocacy and social marketing are crucial, if any governance (legal-institutional) reform can be introduced and succeed. The governance bodies (steering committees and similar groups at the national, sub-national and site levels) can serve as the “mouthpiece” of the key messages of advocacy and social marketing programmes in all phases of R2R mainstreaming – preparation, inception and implementation.

To achieve R2R outcomes, the delivery of public policy is unlikely and uncertain; as pointed out in governance literature, the mix of enforcement methods may range from brute force and fixed bayonets to information broadcasts that seek to change behaviour (Parsons 1995). In the present context and in the cross-sectoral and multi-stakeholder context, the government, market or private for-profit sector and the communities are all enforcement vehicles, and their compliance depend on their own needs, interests, capacities and understanding of how these needs fit within the ecosystem cost and benefit streams. In the analysis of the required mode of organisation, or of what kinds and combinations of local institutions or subsidiary arrangements are most appropriate, for what tasks or activities, and how they can best be supported, and mobilised to engage in desired or compliant ways, it is important to understand the characteristic features of each mode, to wit:

- its assessment frame (dominant basis of ethical decisions and actions or primary motivations and interests for engaging),
- mode of enforcement/gaining compliance or basis for mobilising action (e.g., what drives compliance and participation – hierarchical or coercive authority, profit motive or market-oriented interests, or shared values and solidarity).

As pointed out in the preceding section, instruments legitimating engagement may vary, and deciding what is feasible and appropriate for a particular sector or group or community of interest will largely depend on the consistency of the provisions for engagement to the assessment frame and basis for gaining compliance of each stakeholder. Designing the engagement strategy and its attendant social marketing for the involved stakeholders and governance sub-structures and units based on these features should strengthen compliance or enforcement capability.

Based on the governance analysis, the reform areas where advocacy (upstream form of social marketing targeting policy and decision makers) and downstream social marketing (targeting communities, EGS users, consumers, communities) will be needed are identified for crafting strategic communications, advocacy, and social marketing interventions. There is a need to ensure that policies and programmes respond to what the “end-users/consumers/communities” need. This would facilitate buy-in and support of sub-national and site level R2R planners and implementers. Key reform areas for advocacy and social marketing may include, among others (see further Sub-Guides 3 and 4):

- Enhancing systems and whole thinking at all levels, transitioning mindsets fragmenting economic and socio-economic goals.
- Lobbying and advocating for a new policy or policy amendment to support an R2R approach or landscape-seascape management.
- Formulating and allocating more equitable incentives and having them accepted.
- Selling individual behaviour change to enhance compliance to policies and agreements, and to soften resistance to needed trade-offs and sacrifices.
- Translating science (showing causal dynamics of human actions or non-actions on ecosystems), local experiences, and results of monitoring and evaluation into basis for evidence-based decision-making.

- Generating user-appropriate knowledge products supporting the programmatic approach, i.e., guidance documents and operational manuals for the various functions, stages and aspects of planning, implementation, monitoring and evaluation of the seascape-landscape.
- Periodically and transparently informing all stakeholders on policy and institutional reform decisions and status, and their specific consequences on each stakeholder.
- Identifying positive traditional and customary institutional mechanisms that could support social marketing.
- Introducing gender inclusive approaches to strengthen stakeholder involvement and which should strengthen compliance and enforcement capability in communities.

SG 2.4 – Monitor, evaluate and learn from the evolving links between R2R policies and financing R2R outcome

Policies are implemented when financing is allocated and made available for programmes. While a country will always have an overarching policy framework for ENR, climate change and socio-economic development, ultimately, all actions operationalising them are local. Thus, all changes happen locally, but contribute to higher-level sectoral, sub-national and national goals. Results-based, outcomes-oriented monitoring and evaluation is necessary to ascertain whether policy and financing are working to deliver on resilience and sustainable development outcomes across all their fundamental pillars – ecological stability, economic development social justice, and strong institutions, especially in regard to improvements in conserving biodiversity, reducing threats to ecosystems and EGS, enhancing livelihoods, stabilising or improving quality in the supply of EGS to enterprises and consumers, improvements in policies and governance systems, and mitigation and adaptation capacities. In short, such an M&E system is the key to demonstrating that the impact pathway between policy intent and action is empirical, rather than presumptive.

Key M&E indicators at the national and sub-national levels would focus more on the established/linked/coordinated planning and implementation of various R2R-related policies. Key biophysical, socio-economic, institutional, and resiliency indicators are aggregated from different R2R sites as “observation points” for analysis to gauge the effectiveness and efficiency of policies and programmes that have been instituted and coordinated at the national and sub-national levels.

A site-level monitoring, evaluation and learning (MEL) system, embedded, aligned and inter-operable with other MEL systems across the relevant sectors and levels of governance is needed to prioritise and (re)plan scale-effective and efficient R2R interventions, and adaptive management. There must be a mechanism and sub-structure for aggregating R2R outputs at the higher levels of governance. Database development and updating are key to MEL functioning. Most importantly, a mechanism for linking the “numbers and observations” from monitoring activities to reflections, analysis and generating of lessons learned as basis for feedback, synthesis, and policy and programme modifications and re-configuration of site level activities.

SUB-GUIDE 3 (SG 3)

DEVELOPING STRATEGIES FOR
ADVOCATING R2R POLICIES AND
PROGRAMMES AT THE NATIONAL,
SUB-NATIONAL AND SITE LEVELS



Former Niue Premier Sir Toke Talagi signing the Regulations for the formal establishment of the Niue Moana Mahu MPA with Minister of Natural Resources Dalton Tagelagi, April 2020.

Introduction

Maintaining healthy and resilient ecosystems to ensure sustainable supply of beneficial EGS lies beyond the control of any one sector of society. It entails the collective efforts of everyone. Deliberate actions of stakeholders from government, private industry, civil society, and local communities are imperative in designing and implementing national, sub-national and site level R2R integrated multi-sectoral strategies.

The experiences in testing the R2R Mainstreaming in the Pacific have underscored the vital role of effective communications and advocacy campaigns to speed up the recognition of, and buy-in to, R2R as an effective integrated approach for sustainable resource governance and management. While everyone's participation in the sustainable governance and management of EGS is necessary, the buy-in of government – the duty bearers, the very ones who make policy decisions that affect everyone else – is essential. This is not easy. Ensuring political will almost always requires a lot of persuasion! Proponents of R2R mainstreaming need effective advocacy tools to be able to sway policy- and decision-makers to undertake urgent and decisive actions, including the promulgation of laws and ordinances that reduce environmental stresses, and the allocation of public investments at the national and local levels that will finance conservation-linked techno-socio-economic programmes. In some cases, advocacy-focused briefing of development partners, donor agencies, and even members of CROP, is needed to gauge their willingness to be part of the shared understanding with respect to the R2R approach, especially on its mainstreaming because of the need to provide support and guidance beyond catalytic projects and programmes.

The government, as well as other individuals and groups that are in a position of power and influence over the use of natural resources and EGS in the community (such as policy and decision makers, traditional leaders, appointed political leaders and bureaucrats at various levels of government, law enforcers, community leaders and media figures) need to be convinced that the R2R approach carries substantial cost-effective benefits, which will not only lead to environmental gains, but also considerable social and economic advantages to concerned communities and the country as a whole.

Understanding the *“factors that impact growth and governance such as politics, rules and norms, social and cultural practices, beliefs and values, and historical and geographical determinants”*²² and the political and jurisdictional boundaries where these factors play significant influence among the stakeholders is key. A good advocacy framework²³ could be developed based on the outputs of SG 1 and SG 2 as shown in Figure 9 below. Thus, an initial analysis of who gets what, how much, when, for whom, and with whom is key in crafting an advocacy strategy. In natural resources, governments, land, and water owners (titled, customary rights, legitimate license holders, etc.) are the major players in the inter-play between nature, power, and wealth. Elite capture, in most countries, is a major issue in sound environmental governance. Within the discussions on stakeholders and political and jurisdictional boundaries, one of the key considerations for any cost benefit analysis is the need for a discussion/analysis on gender and social inclusiveness. That is, the individual and collective environmental gains and social and economic benefits is realised by all members of communities.

Balancing protection of ecosystems and the use of EGS requires serious analysis. Results must be clearly communicated and understood by decision makers, policy makers, and those with vested interests. Win-win nature-based solutions are needed and agreed upon between the regulators, users, and communities. Ideally, public welfare and posterity values are given priorities in developing consensus.

22 USAID. 2016.

23 Adapted from USAID. 2004.

Target Users and Objectives of this Sub-Guide

This Guide is directed to advocates of R2R approach and to its mainstreaming and those who recognise the burning need to work with and through government and advance the sustainable management of the environment and natural resources and the socio-economic development they support. It seeks to equip the users with some pointers on how to tackle the challenge of influencing those in position to Choose, Decide, Act (CDAs) on policy options and recommendations promoting structural and policy changes that will in turn support and sustain short, medium, and long-term behavioural change.

Outputs of SG 1 and SG 2 are useful in developing an advocacy plan for the improvement of policies and programmes that have short, medium, and long-term impacts to R2R mainstreaming in PICs. The starting point of advocacy is getting a grasp of the policies, relevant institutions and governance processes that are influencing choices, decisions, and actions with respect to the environment and natural resources – especially on land, water, sea, and resource uses.

This material introduces the key elements of Information, Education and Communication (IEC) and Advocacy, and guides the users in engaging the “upstream” target groups – policy and decision-makers in general – through a variety of advocacy methods and IEC tools. The guide includes in all its strategies gender considerations and the need to have socially inclusive approaches that engages all sectors of communities.

This Guide aims to:

- provide users an overview of advocacy and IEC as development communication interventions;
- enumerate options for advocacy methods and IEC tools; and
- provide pointers on, and examples for designing an effective advocacy strategy for R2R mainstreaming.

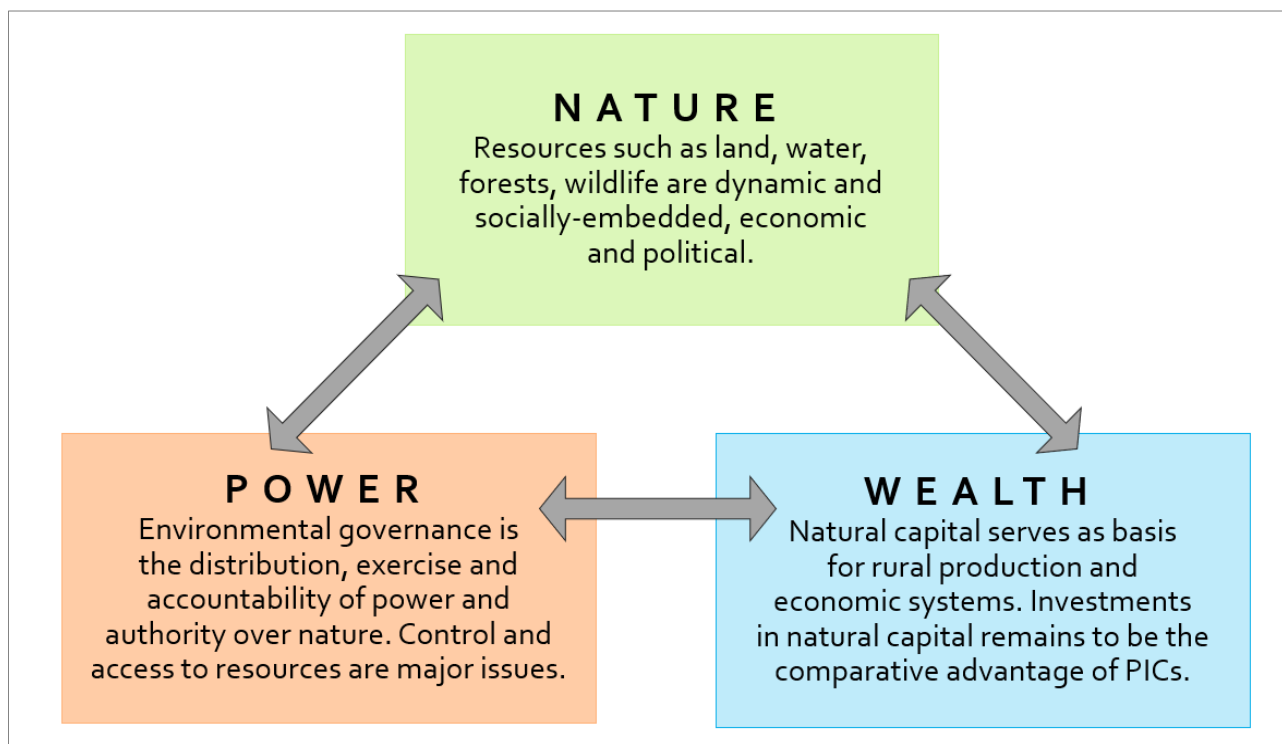


Figure 10. Suggested Framework for Developing an Advocacy Plan on R2R Mainstreaming (USAID 2016, Chen et.al. 2014)



James Cook University postgraduate certificate in Ridge to Reef Sustainable Development Attendance Ceremony in Nadi, Fiji (August, 2019)

Advocacy and Information, Education and Communication: An Overview

Generating commitment and action among publics who can contribute to the solution of social problems requires strategies that put vital importance on interpersonal communication. This Guide champions the use of Advocacy, combined with the techniques of Information, Education and Communications Campaign (IEC) to influence the policies or programmes of government – the parliament, the elected officials, ministry leaders, bureaucrats, local council of leaders – as well as media figures, donors, regional and global agencies, and similar organisations.

IEC pertains to communication approaches that are used to reach target groups. IEC, however, is not a mere information campaign or communication project, but a long-term programme aimed at raising consciousness to bring about change in human behaviour and practices. IEC tools and activities include the development, production, and distribution of printed materials (brochures, pamphlets, posters, leaflets, and flyers), radio spots, plugs, jingles, documentaries, person to person meetings, and writing policy briefs, blogs, and making short and long presentations based on empirically grounded arguments carried out to stir discussions and question mainstream awareness and widely held beliefs.

Advocacy, on the other hand, is defined as a planned communication effort to persuade decision makers at policy, planning and management levels to adopt necessary legislations and carry out programmes of action and allocate resources for a cause.²⁴ From the Latin *advocare*, ‘call to one’s aid’,²⁵ advocacy is broadly understood as the act or process of pleading or arguing in favour of a cause, idea, group, or policy. Advocacy relies on persuasion using empirically grounded facts to demand policy change through a combination of awareness raising, lobbying, organising, persuading, and sometimes protesting. In deliberative thinking²⁶, the thoughts and actions of individuals can change when empirically grounded information is presented repeatedly, consistently, logically, and reflected on by the target groups.

24 Cohen et al. 2010.

25 Retrieved <https://www.etymonline.com/search?q=advocate>.

26 Kahneman. 2011.

Some Guidelines for Developing an Advocacy Strategy for R2R Mainstreaming

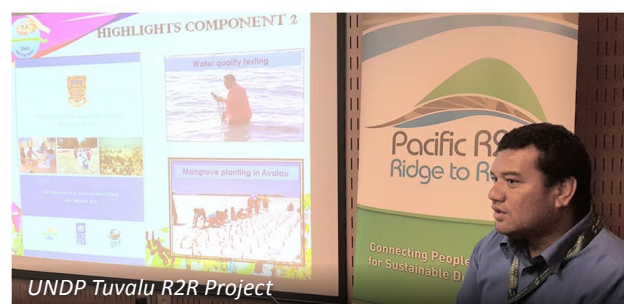
An advocacy plan generally consists of 7 components: 1) problem; 2) goals; 3) target groups; 4) message/messenger; 5) resources and assets; 6) strategy and tactics; and 7) evaluation.

SG 3.1 – Define the problem that needs to be solved

- What is the problem? What evidence can support the definition of the problem? For example, what R2R related policies are now being carried out that do not support inter-sector co-financing of activities that are perceived to reduce threats to the ecosystem and EGS supply? What policies and support programmes are needed to address wastewater management but are not in place? What support subsidy is needed for the poor communities to comply with the “septage” requirements in every house to address contamination of the underground and surface water and the coastal areas?
- Who are affected by the problem?
- Why is there a problem? What are the causes?
- What are the effects of the problem in the short-term? What are its consequences in the long run?
- What are the known ways the problem can be solved? What are the best practices and benchmarks that can inspire action?

Note that effective advocacy is evidence-based, and clearly necessitates robust research and preparation! In R2R approach, advocacy is accompanied with spatial analysis to improve visual presentations. A comprehensive stakeholder analysis and simple analysis based on the nature, power and wealth considerations will be useful in understanding the depth of an issue. For advocacy, policy gaps and weakness to address weak governance system and programmes are of value in developing advocacy campaigns, especially if scientific studies and other institutional analysis highlight the gaps to be covered by proposed policy instruments.

SG 3.2 – Formulate and clearly state the goals (or objectives) of the advocacy campaign



Integrated Ridge-to-Reef Approaches in Pacific SIDS: Perspectives and Experiences at the 9th GEF International Waters Conference Marrakech, Morocco 2018

What is the SMART (simple or specific, measurable, achievable, realistic, and timely) goals and objectives of the undertaking? In the short-, intermediate- and long-term?

The campaign may, for instance, aim for the following overall goal:

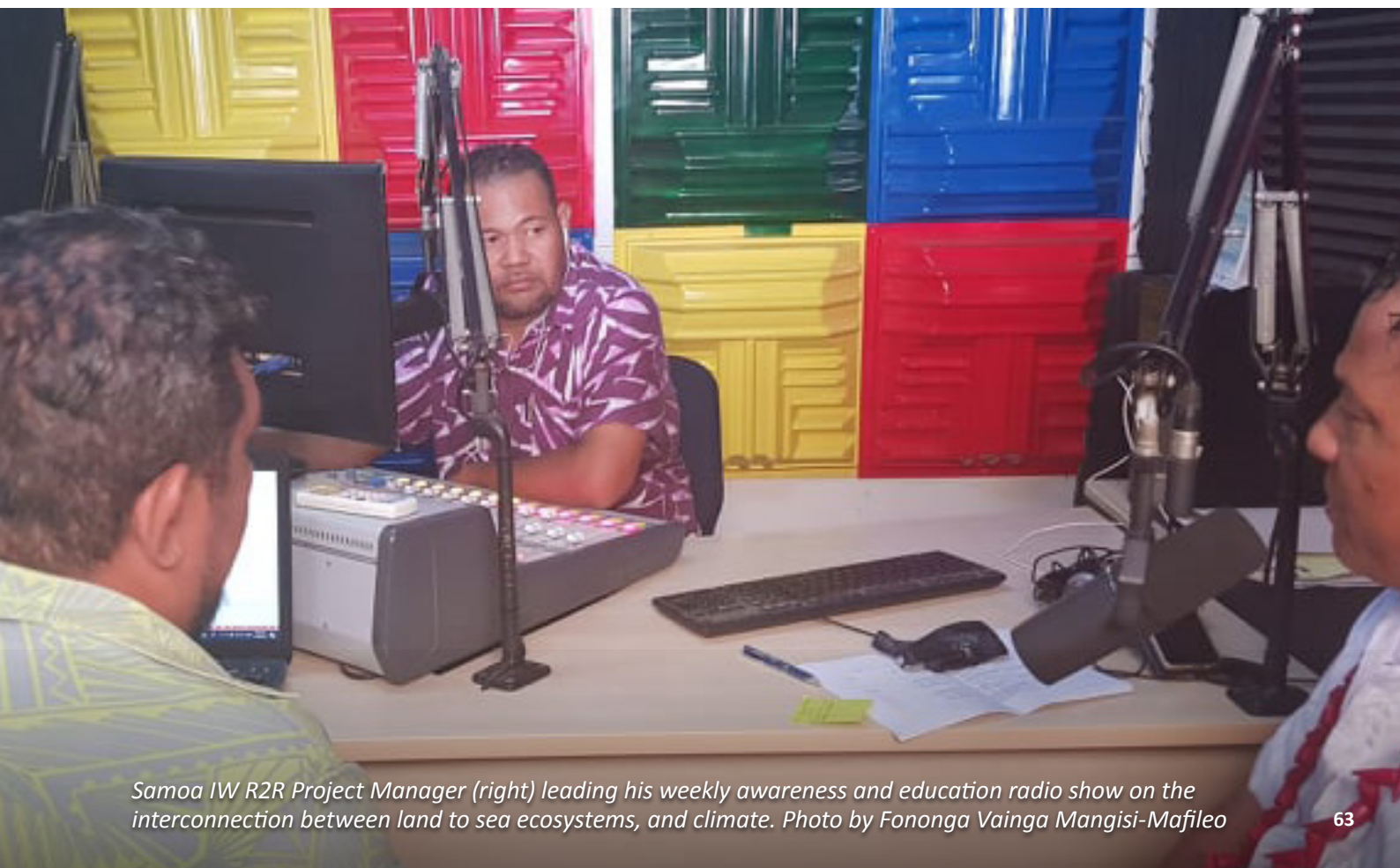
- *to create an enabling environment through raised awareness to support R2R mainstreaming in terms of its policy, regulatory, technological, and financial requirements at the national, sub-national and specific site levels.*

A sampling of possible key objectives of the campaign are:

- *Increase public understanding about the need for sustainable use of ecosystems goods and services through R2R at the community, provincial, national levels;*
- *Generally, enhance the frequency and quality of public discussion on environmental issues in all sectors;*
- *Support the passage of new (and necessary repeal or amendment of existing) national and sub-national legislations to assist the adoption/implementation of interventions for R2R mainstreaming in key sectors;*
- *Provide a framework for engaging educators, mass media and industry networks in outreach and awareness activities, to increase the number of stakeholders who are supportive of R2R;*
- *Stimulate behaviour change at individual, household, community, and institutional levels; and*
- *Mobilise state resources for R2R mainstreaming.*

SG 3.3 – Determine the target group/s – effective advocacy campaigns are purposive

A comprehensive analysis is required to clearly identify and characterise its target group/s. In PICs, identifying target groups will involve people who wear different hats – policy and decision makers who could also be field coordinators, members of several governance bodies, leaders of farmer groups or fisher folks. We imagine, however, that policy and decision-making are distinct, compared to media (possibility that they are also in media), academe, private sector, fisher folks, farmers, tourist operators, etc.



Samoa IW R2R Project Manager (right) leading his weekly awareness and education radio show on the interconnection between land to sea ecosystems, and climate. Photo by Fononga Vainga Mangisi-Mafileo

a) Undertake Stakeholder Analysis

The stakeholder analysis will include a stakeholder mapping exercise which will identify leaders, men and women and other users of resources and external partners or development partners on the ground.

- Ask, who are more likely to gain benefits from R2R mainstreaming?
 - ✓ Households and individuals who consume EGS?
 - ✓ Consider the different benefits women and men gain from the use of EGS. In what different ways do they benefit? Does the use of EGS support their productive, reproductive, community management roles? How about on their rest and recreation, their practical gender needs, and strategic gender interests?
 - ✓ Industries and businesses which use EGS (such as plantations, hotels/resorts, restaurants, which use a lot of water)?
 - ✓ The government that is mandated to sustainably manage/protect/conservate EGS?
 - ✓ Environmentalists and conservationists?
- Ask, who are more likely to be adversely affected by it?
 - ✓ Households and individuals who may need to pay 'costs' (such as consumer fees and/or time and effort that desired changed behaviour for adopting R2R may entail).
 - ✓ Consider the different effects of R2R mainstreaming (for instance, the regulated use of EGS) on the division of labour, access to and control over EGS by women and men.
 - ✓ Industries and businesses like hotels and restaurants (that may need to pay user fees for EGS, and/or other financial, material, and human resources that may be consumed as business operations are adjusted/modified, as a result of the adoption of R2R).
 - ✓ Real estate developers that may lose business as they may be restricted from undertaking developments in no-development/protected zones
 - ✓ Others?
- Who has the power, influence, and resources to make R2R mainstreaming happen?
 - ✓ Government actors at national, sub-national (state, island, provincial, tikina, kaupule levels), including:
 - Parliament members
 - Elected officials
 - Council of traditional leaders
 - Ministry/department/bureau leaders and officials as well as technocrats and bureaucrats across governance levels, in relevant fields and sectors, such as:
 - o Planning
 - o Human settlements
 - o Infrastructure planning and development
 - o Environment and natural resources (including forest, biodiversity, and wildlife) management
 - o Land management
 - o Water resources development and management
 - o Agriculture, fishery, and livestock
 - o Tourism
 - o Others
 - ✓ Village leaders
 - ✓ Customary landowners

- ✓ R2R site leaders and managers (such as Vanuatu's Tagabe River Management Council)
 - ✓ Media professionals (print, broadcast and web-based)
 - ✓ Civil Society organisations (women and children advocates, environmental groups such as Palau Conservation Society, and other advocacy groups such as Vanuatu's Wan Smol Bag)
 - ✓ General public
 - ✓ Others
- To what extent do women and men participate in policy and decision-making representing communities around sustainable use of EGS?

The media (the organised system that delivers information to large numbers of people like radio, television, newspapers, magazines, trade journals or community newsletters) are often considered primary audience of advocacies as they can be effective conveyors of information to all sectors of society²⁷. The public has also been recognised as an increasingly relevant and forceful constituency for policy change. Ultimately, the public (comprised of individuals and households) is the end-user of development programmes, therefore, it is useful to direct advocacy messages to citizens²⁸. Long-term public education will build a larger constituency for any cause, especially R2R.

To make the advocacy campaign much more meaningful, the audiences need to be further segmented and more comprehensively analysed in terms of their degree and areas of power and influence; their position and views about R2R (as supporter or opponent); as well as their level of knowledge about R2R, including of appropriate R2R-related policies and programmes, responsive institutions. and sustained programmatic support to communities. Policy advocacy highlights the need to minimise free riders by adopting/sustaining good governance practices and voicing the need for inclusive governance bodies; and putting in place sustainable financing arrangements for R2R initiatives.

b) Undertake Power and Influence Analysis with respect to natural resources, environment, ecosystems management and regulation of EGS access. Ask:

- Who are the most important stakeholders? In this line of questioning there will be specific emphasis on men and women and their role as stakeholders.
- Who are the individuals, groups or institutions that have the legitimate authority to directly influence the outcome of R2R mainstreaming (primary audience)?
- Who are those that can influence the decision makers (secondary audience)?
- What is their decision-making role and area of influence? Which groups in communities that use resources do not have any influence/any say in decision making roles?

The R2R Stakeholder Engagement Tool of the Regional R2R Programme, or a similar tool like the table below may be used to help generate and summarise the findings.

Table 16. Power and influence analysis

Advocacy Objective		Specific Policy/Decision-Making Role?	Degree of Power/ Influence Low – Medium -- High	Area of Influence
Stakeholders	Authority (Y/N)?			

27 Sharma (no date).

28 Ibid.

c) Undertake Knowledge, Position, and Interest Analysis. Ask:

- What is the knowledge level of each of the identified stakeholders on R2R? In this case the questions will refer to both traditional knowledge acquired over years of use of resources, and scientific learned knowledge.
- Who among these stakeholder’s support, oppose, are neutral about R2R (position analysis)? Who amongst the stakeholders have no say and cannot voice concerns about R2R? E.g., women, young people.
- What do the stakeholders see as possible advantages or disadvantages of the policy (interest analysis)?

The R2R Stakeholder Engagement Tool of the Regional R2R Programme, or a similar tool like the table below may be used to help generate and summarise the findings.

Table 17. Knowledge, position, and interest analysis

Advocacy Objective		Position on the Proposed Policy		What they perceive as advantages/ disadvantages of R2R?
Stakeholders	Knowledge Level Low-Medium-High	Neutral or Support/ Oppose?	Degree of Support/ Opposition? Low-Medium-High	

These analyses are meant to generate insights that should shape the campaign. Knowing what the audience/s roles in policy are making and governance processes, their needs, concerns and interests, advocates will be able to prioritise target group/s, decide on the message and the approach and methods of conveying the message to directly address their unique circumstances.

SG 3.4 – Define messages and messengers – state the tailor-fit or “best fit” messages for the audience/s depending on what different groups need to hear



Resilient and Sustainable Development Regional Media and Communications Training for journalists and R2R practitioners hosted by SPC Geoscience Division, Pacific Island Forum Secretariat, and the United Nations Pacific Office in Nadi, Fiji, 2017.

Messaging is probably the most important component of an advocacy. The message must be carefully formulated to be able to optimise the opportunity to speak truth to power. Advocacy messages should include two main components: “an appeal to what is right, and an appeal to the audience’s self-interest”²⁹.

It is important to note that different audiences respond to different messages, and this depends on their self-interest. It is crucial to be able to highlight in the message each of the audience’s “What’s in it for me?” Therefore, the audiences must be carefully analysed. For instance, politicians may become motivated when they learn how many people in their district care about an issue. A health minister may act when she/he is presented with detailed data on the prevalence of the problem (example, diarrhoea due to contaminated water). A tourism minister may likely be dismayed and take a stand once she/he finds out the dollar amount of potential tourism revenue losses due to unbridled resort development in the country’s most sought-after but fragile island getaway.

R2R advocacy’s primary message needs to be universally compelling, clear, and concise. It is suggested that policies and programmes related to R2R planning, programming, and implementation be strategically communicated to national and sub-national policy makers. The messages should impart the value of healthy ecosystems and their inherent capacities to provide EGS to the EGS users and community users and consumers. The secondary messages on the other hand, are formulated for specific audiences that need further detailed explanation. As emphasised in first component above, statements should always be evidence-based. To capture the audience’s attention, the messages must be also further in audience-appropriate language and must use a balanced level of rational and emotional appeal.

As R2R mainstreaming seeks to contribute to sustainable and people-centred development, the content and processes of any advocacy campaign must be gender-sensitive and socially inclusive. The messages and how they are conveyed should be checked for how they portray women and men to ensure non-discrimination of any gender-groups and any members of the population.

Table 18 presents a few more tips on messaging.

Table 18. Guide to Messaging: Audience and Appropriate Content and Format of Messages

Audience	General Guide on Message Content	Recommended Message Format
<p>Primary Audience 1: Decision Makers and ‘Influentials’</p>	<ul style="list-style-type: none"> • <i>Should be short, concise, and persuasive.</i> • <i>Even if the decision maker is not a politician, it can be beneficial to communicate (sometimes subtly) how proposal enhances his or her political or social standing.</i> • <i>Economic arguments such as the potential budgetary savings or benefits are always good to include when possible.</i> • <i>Policy makers will also want to know what action advocates would like them to take and who else supports the proposal.</i> 	<ul style="list-style-type: none"> • <i>persuasive one-on-one presentations</i> • <i>short video presentations</i> • <i>computer presentations</i> • <i>interactive computer modelling programmes</i> • <i>newspaper articles or advertisements</i> • <i>broadcast commentary or coverage</i> • <i>others?</i>
<p>Primary Audience 2: Broadcast Media and the Press <i>(media now also include the social media)</i></p>	<p>As mentioned above, media can be effective conveyors of information to all sectors of society. Therefore, the information that the press and broadcast media report and how they treat issues can influence both broad public opinion and the thinking of individual decision makers.</p> <ul style="list-style-type: none"> • <i>Media like to know how a situation affects individuals</i> • <i>Media often report “human interest stories.” That is, they use someone’s experience as an example.</i> • <i>The media are also usually interested in new, ground-breaking information or how an issue relates to a current development.</i> 	<ul style="list-style-type: none"> • <i>news release/press release</i> • <i>press conference or media event</i> • <i>issue briefing for journalists</i> • <i>graphics or illustrations</i> • <i>fact sheet or background sheet</i> • <i>media packet/press kit</i> • <i>letter to the editor</i> • <i>social media content</i>

29 Schultz 2004.

Audience	General Guide on Message Content	Recommended Message Format
Secondary Audience 1: General Public	<ul style="list-style-type: none"> • <i>Should be simple, clear, concise, and persuasive, and action oriented.</i> • <i>People often want to know how a programme will directly affect or benefit them</i> 	<ul style="list-style-type: none"> • <i>promotional items, e.g., buttons, fans, pens</i> • <i>banners</i> • <i>pamphlets, brochures, fliers</i> • <i>newspaper ads or articles</i> • <i>fact sheets presentations at community meetings and events like local festivals</i> • <i>street theatre</i> • <i>radio spots/radio features</i> • <i>television shows, news features</i>

An important aspect of messaging is who gets to send the message. The same message can be differently perceived by audiences depending on who is delivering it. Specific audiences may need different individuals and institutions communicating the message to them. The messenger must support the issue, to be credible.

- What is the messenger’s position regarding R2R?
- What is the messenger level of influence on the specific audiences?
- How aware is the messenger on the issue surrounding unsustainable management of EGS? How much information does the messenger have regarding this?
- How credible is the messenger in the eye of the specific audience?

It will be very beneficial if the campaign can find key ‘influentials’/opinion leaders/highly respected individuals in their field to sponsor or champion the cause for R2R.

SG 3.5 – Determine required resources and assets to carry out the advocacy plan

List the available and necessary resources – such as financial, human and infrastructure – needed according to the nature and goal of the advocacy plan. The estimated cost should be based on a proposed schedule and duration of activities for the advocacy implementation.

SG 3.6 – After approval, implement the advocacy strategy and tactics to achieve the advocacy goals

Depending on what policies or actions are being advocated, advocacy plans at the sub-national, and national levels may be carried out as preparatory activities before actual R2R plan implementation. Ideally, for site level R2R approach, implementation of the advocacy plan is done by the sub-national government with the support of the national technical line agencies. At the national level, the lead R2R agency and/or the sub-national government implements the advocacy plan to facilitate approval or actions that will improve policies and programmes in support of R2R mainstreaming.

The research and analyses undertaken in previous steps of the advocacy process will help one to make an informed choice about which of the five possible influencing approaches to employ: collaboration, direct persuasion, building support, coercive pressure, and litigation³⁰.

Collaboration is about securing a formal commitment from policymakers and decision-makers to working together for R2R. It requires a shared commitment to problem-solving, and trust and respect between the policy makers and the advocates. Direct persuasion involves presenting clear and appropriate arguments. It requires some form of direct access to those policy makers as well as a clear argument supported by credible evidence. Gaining this kind of access often requires years of credibility-building through continued engagement with lower levels of the government administration, or it might be from building power through

30 Southern Voices on Climate Change. Nov 2014.

public campaigning and gaining support from some influential actors. For more controversial issues, building support with influential stakeholders or segments of the public is required. Governments are unlikely to take the action unless there is a lot of support (or pressure) for them to do so. Coercive pressure involves raising the political, economic, or social cost on the policy makers if they don't do as wanted. Tactics include strikes, boycotts, or other forms of direct action.

In most cases, advocates tend to adopt a multi-track strategy combining direct persuasion, and collaboration, and building support.

SG 3.7 – Monitor and evaluate the advocacy implementation progress

The effectiveness of an advocacy plan is always monitored and evaluated periodically considering the objectives and expected outputs. Progress indicators will help the advocacy proponents to gauge possible results from the activities or possible changes in tactics if needed. In the long run, the expected results, when achieved – endorsement of policies, establishments of governance bodies, adoption of R2R programmes, approval of and support for R2R plans, re-aligning budgets, adoption of R2R protocols for coordination and collaborative activities, joint enforcement activities, etc. – are some tangible evidence that the advocacy has worked, relatively worked, or failed.

Sample Messages and Recommended Format/Delivery Modes Per Target Audience/Group

Advocacy Objective	<ul style="list-style-type: none"> Support the passage of new (and necessary repeal or amendment of existing) national and sub-national legislations to assist the adoption/implementation of interventions for R2R mainstreaming in key sectors; Mobilise state resources for R2R mainstreaming 	
Target Audience/Group	Key Message/Content of Message	Recommended Format/Delivery Mode, Approach and Action Needed
<p>All audiences (Primary and Secondary): Policymakers, Decision-Makers, Influentials, Industry leaders, Public at Large</p>	<p>Adopting the R2R Approach is sustainable development for all! Policy reforms and programme actions can reduce the vulnerability and improve the welfare of the poor, as well as lead to a vibrant economy for the benefit of the whole society.</p>	<ul style="list-style-type: none"> Collaboration and Support-Building <ul style="list-style-type: none"> Launch the Advocacy Campaign during a big community event Build a coalition of advocates by holding a ceremonial signing of a Manifesto or Pledge for "OUR COMMITMENT TO OUR SUSTAINABLE FUTURE" where community members, industry leaders, landowners, and led by community leaders from across governance levels, including from the executive branch and parliament lead the signing. (This should be done when initial Influential support has already been secured have been completed) Consider launching an award system to recognise outstanding and pioneering efforts supporting R2R mainstreaming Distribute meaningful promotional materials to all participants

<ul style="list-style-type: none"> • Support the passage of new (and necessary repeal or amendment of existing) national and sub-national legislations to assist the adoption/implementation of interventions for R2R mainstreaming in key sectors; • Mobilise state resources for R2R mainstreaming 		
Target Audience/ Group	Key Message/Content of Message	Recommended Format/Delivery Mode, Approach and Action Needed
Primary Audience 1: Policymakers (Members of Parliament) and State Heads	Policy Reforms for R2R is good governance. They will lead to: <ul style="list-style-type: none"> • increased national revenues, improved investment climate • improved national development outcomes • better reports to on country's performance on internationally agreed development goals 	<ul style="list-style-type: none"> ☛ Direct Persuasion and Support-Building <ul style="list-style-type: none"> • Courtesy calls • Policy briefs • Meeting with Legislators and Staff with persuasive, evidence-based presentations • radio commentaries, newspaper articles or advertisements • writing, or emailing to augment the visits * Identify at least one sponsor/champion/ambassador in the Parliament
Primary Audience 2: Ministry leaders and decision-makers, technocrats, and bureaucrats	Programme actions for R2R is good governance. They will lead to: <ul style="list-style-type: none"> • improved national development outcomes • Reduce damages from natural disasters and risk exposure – no houses in highly prone areas for landslides and floods • Reduce threats to public health and safety – waste segregation, stagnant water, boiling water, washing hands • Better reports on country's performance on internationally agreed development goals 	<ul style="list-style-type: none"> ☛ Direct Persuasion and Support-Building <ul style="list-style-type: none"> • Courtesy calls • Policy briefs • Orientation Meeting/Consultative Meeting with Ministry technical staff and other government staff • Meeting with Ministry Leaders, using persuasive, evidence-based presentation • Technical/Knowledge-building workshops/Training/ Study tour as necessary • <i>newspaper articles or advertisements</i> • <i>radio commentaries</i>
Primary Audience 3: Sub-national Community leaders (at province-level, island-level, village-level)	Policy and programme actions for R2R is good governance. They will lead to: <ul style="list-style-type: none"> • Increased government revenues • improved business and investment climate • Reduced damages from natural disasters and risk exposure • Reduced threats to public health and safety • healthier environment • healthier local communit 	<ul style="list-style-type: none"> ☛ Collaboration and Support-Building <ul style="list-style-type: none"> • Hold Community Leaders' Summit to provide orientation on R2R or One-on-One Consultative Meeting with Community leaders (as appropriate), with at least one highest possible ranking government official in attendance to lend the event greater credibility • using persuasive, evidence-based presentation • <i>newspaper articles or advertisements</i> • <i>radio commentaries</i>
Secondary Audience 1: Media	R2R, the cause for sustainably managing the environment and natural resources is everyone's business. There is a need for broadcast space to disseminate information of public interest.	<ul style="list-style-type: none"> ☛ Direct Persuasion, Collaboration and Support-Building <ul style="list-style-type: none"> • Organise a media field visit to the R2R Programme site • Host regular informational sessions with press, radio (local FMs), and TV journalists to brief them on R2R relevant issues • Broadcast 'human interest stories' of local communities taking action on R2R; personal testimonies of people who have benefitted from R2R related initiatives; also.

Advocacy Objective	<ul style="list-style-type: none"> • Support the passage of new (and necessary repeal or amendment of existing) national and sub-national legislations to assist the adoption/implementation of interventions for R2R mainstreaming in key sectors; • Mobilise state resources for R2R mainstreaming 	
Target Audience/ Group	Key Message/Content of Message	Recommended Format/Delivery Mode, Approach and Action Needed
<p>Secondary Audience 2: Industries and Businesses and other private interests</p>	<p>Management response in support of R2R is smart business. Adopting more sustainable business practices now is an investment into the company's future. This will lead to:</p> <ul style="list-style-type: none"> • Reduced costs • Increased productivity • Better company reputation • Healthier work environment • Reduced occupational risks and hazards • Sustained income 	<ul style="list-style-type: none"> • Collaboration and Support-Building <ul style="list-style-type: none"> • Hold Business Leaders' Summit to provide orientation on R2R, highlighting how R2R is 'the right way to go' for businesses. Ensure that at least one highest possible ranking government official is in attendance to lend the event greater credibility • using persuasive, evidence-based presentation • <i>newspaper articles or advertisements</i> • <i>radio commentaries</i>

SUB-GUIDE 4 (SG 4)

DEVELOPING AND IMPLEMENTING SOCIAL MARKETING STRATEGIES FOR TARGET R2R COMMUNITIES



*His Royal Highness Prince Ata of Tonga, with Member of Parliament, Ministry of Land and Natural Resources Chief Executive Officer, School Principal and Tonga IW R2R Project Manager at the launch of the compost and sand filtering septic system at Kanokupolu Government Primary School, Hihifo District, Tongatapu.
Photo - Iliesa Tora/Enviro News*

Introduction, Target Users and Objectives

As emphasised in Sub-Guide 3, the maintenance of healthy and resilient ecosystems to ensure sustainable supply of beneficial EGS requires the collective efforts of everyone. The EGS users and local communities who depend on EGS for their livelihoods need to be enjoined in the R2R mainstreaming processes, and any other endeavours striving for social transformation. In this case it is important to properly assess what and who we mean when we talk about EGS users, including communities, considering the different contexts of communities in the PICs. EGS users include enterprises in the urban areas who use EGS as inputs to their business operations to produce products that are used by consumers. This is the case for potable water, ecotourism-related services, among others. Communities who depend on fertile soil, fishing ground, fuelwood, construction material, medicines, etc. from the ecosystems are considered community users. In general, communities will mostly be ethnic groups, other groups that make up groups that are led by chiefs or traditional leaders, mayors, provincial leaders, etc. In addition to this, women, youths and the vulnerable in communities as regular users of resources need to be included. Thus, the need for gender inclusion in all social marketing strategies.

Whereas the preceding Sub-Guide centres on advocacy communication campaigns directed to influence the “upstream” target groups – those stakeholders who possess greatest degrees of power and authority in shaping national as well as sub-national and site-level policies and governance decisions – Sub-Guide 4 focuses attention to stimulating behavioural change among the “downstream” target markets in the R2R sites – the very individuals who are the ultimate users and consumers of EGS. The ones whose lives, access to EGS, livelihoods and small enterprises are affected greatly by the availability (or the lack of) EGS.

This Guide is for any advocate of R2R approach who wishes to obtain some pointers on how to better approach the engagement of local communities in fostering a “shared understanding” of the benefits and the flow of R2R approach, and in generating public commitment and action supportive of R2R approach.

This Guide provides an overview of social marketing, outlines the broad steps in formulating a social marketing plan with local communities as target groups, and presents some ideas for an effective campaign.

The Fundamental ‘Whats’ and ‘Whys’ of Social Marketing

As earlier discussed in the Guide, marketing in general is the process of getting people interested in a product or service. Businesses use marketing techniques to influence consumer behaviour, that is, to influence their target group to *buy their product or service*. Social marketing is also concerned with selling, but here, the marketing process is used to sell not a *tangible product or service*. *Social marketing is used to sell a social idea, a fresh perspective, a desired behaviour, a new practice*.

Social marketing is “a process that applies marketing principles and techniques to create, communicate, and deliver value to influence target-audience behaviours that benefit society...as well as the target audience” (Kotler and Lee 2008:7)³¹. Social marketing has been used globally in the last 5 decades to address a myriad of poverty-related and other social issues including drunkenness, teen pregnancy, disease control, habitat protection and literacy (Kotler and Lee 2008). It can be as useful in promoting adherence to the Ridge to Reef approach.

As a process that seeks to enhance the acceptability of a social idea or desired behaviour, it is important to note some key social marketing principles:

- 1. Social Marketing is concerned about behaviour change.** Social marketing is usually applied to influence the behaviour of a target audience/group, to make them do any of the following on a one-time or a permanent basis:
 - *Accept a new behaviour* (such as the one-time construction of compost toilet, and its continued (permanent) use);
 - *Reject a potentially undesirable behaviour* (such as resorting to use of explosives or cyanide, bleach, and other poison to catch fish);
 - *Modify a current behaviour* (for instance, for a local chief executive, the granting of a one-time increase in funding support to community-based rainwater harvesting project);

31 Kotler and Lee. 2008.

- *Abandon an old, undesirable behaviour* (such as to permanently stop slash and burn farming practice).

Promoting behavioural change often requires increasing awareness and altering existing attitudes or beliefs of target group about an issue. Persuasive communication is therefore an integral component of an undertaking in social marketing. The outcome of a winning social marketing effort, however, is not whether knowledge level is raised, but how the target group responded to their enhanced knowledge. Success is when the target actually “buys” the behaviour that the social marketing process “sells.”

2. **Behaviour change normally transpires voluntarily.** Social marketing depends largely on voluntary compliance, not mandatory obedience. The process actively involves the target group who voluntarily participates in the exchange, the ‘selling’ and ‘buying.’ People are always sizing “what’s in it for me?” before deciding on whether to buy. The target group needs to be convinced that the changed behaviour the social marketing aims to create will reap potential personal benefits that equate, if not exceed, the costs they must individually pay.
3. Social marketing targets change in behaviour and traditional lifestyles adopted and lived for generations, thus **interventions need to be long term to enable phased changes on ways of thinking and application of new behaviour.** To make social marketing efforts more meaningful, great effort needs to be exerted to ensure that gender equality and social inclusion concerns are considered, to ensure that the practical and strategic gender interests of women and men are addressed and that their active engagement in the social transformation process is supported.

Many issues social marketing campaigns tackle (like recycling or waste segregation) require some personal ‘costs’ (such as effort, time, inconvenience), and yet the benefits may not be clearly directed to the individual, and neither be immediately forthcoming. In such cases, the challenge for social marketers is to make the target group be able to perceive that the desired behaviour is truly desirable for THE value it brings to her/him and the collective members of their group or society, despite the personal costs. When compliance is crucial and the target group is far from willing or ready to “buy”, some social marketers also work with other institutions (such as schools, church, or government) and seek their influence to improve the chances of obtaining the desired response from the target.

4. **Customer orientation is key.** Effective social marketing applies a customer orientation overview to understand segments of the audience or market, and consider that each has distinct needs, wants, beliefs, issues, and concerns.

It is crucial to have a deep insight into the lives of the target group, with a focus on what will or will not motivate or enable them to change their behaviour, adopt a new one, modify and/or sustain it in any given situation.

With adequate knowledge of the target, marketers then select one or more market segments that they can best influence, decide on clear objectives and goals, then tailor-fit a distinct marketing plan that will uniquely appeal to each of the targets. Once a plan is implemented, results are monitored and evaluated, and strategies are altered as necessary. Research then plays a vital role all throughout this process.

FSM Ridge to Reef (R2R) Project Newsletter

What's Inside!

- Page 2: Kosrae and Palau's Strategy for World Environment Day and World Ocean's Day
- Page 3: Kopy Community Management Planning and North Assessment Completed in Chamki
- Page 4: Blue Guide to Coastal Resilience Training in Yap

Recertification Training for Kosrae Conservation Enforcement Taskforce (KCEET) Officers in Kosrae



On April 12-14, 2021, members of the Kosrae Conservation Enforcement Taskforce (KCEET) participated in a recertification training, facilitated by the Kosrae State Department of Public Safety. Pursuant to Kosrae State Law, for the Appointment of Deputies for Law Enforcement under Title 5, section 5.209 of the Kosrae State Code, a person appointed as a deputy must be re-certified every two years.

Activities for the three-day training included a classroom session, which occurred on day one, a physical training, which took place on day two and a written exam on day three to conclude the training. All 19 participants in the 2021 KCEET Recertification Course passed, therefore, will resume their duties as deputy officers.

A deputization ceremony was held on Friday, April 23, 2021 at the Kosrae State Governor's Building. The Chief Justice of the Kosrae State Court, Hon. Chang Williams, administered the oath for the 19 KCEET members and the new Sheriff for Lelu Town Government. Attendees in support of the event included Governor Carson Sigrah, Lt. Governor Arthy Nena, Speaker Tulensa Palik, several cabinet members, Municipal Mayors, families and friends.

A reception was held after the ceremony at Awene Marine Park. The Administrator for the Kosrae Island Resource Management Authority (KIRMA), Mr. Star Charley, officiated the opening remarks prior to the issuing of certificates and badges to the deputized officers. In his remarks, Administrator Charley acknowledged the deputy officers and encouraged them to fulfill the duty and rights bestowed upon them. Mr. Steven Palik, Chairman for the KCEET, joined KIRMA in recognizing the Kosrae State Department of Public Safety for its technical support and the FSM Ridge to Reef (R2R) project for its financial support. Both made it possible for the 19 Officers to be re-deputized, which is crucial to enhancing the enforcement of Title 15 of the Kosrae State Code.

GEF International Waters: Learning Exchange and Resource Network (IW-LEARN)

Twinning Report

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Inter-regional SIDS knowledge sharing on experiences and emerging lessons from Source to Sea programmatic implementation



1. PROJECT TITLE(S) –
GEF/UNDP/SPC Pacific Regional International Waters Ridge to Reef Project and GEF IWeco Project

2. PROJECT DESCRIPTION(S) –

Pacific R2R Programme eNewsletter Issue: 1

August 2020

Around the Region | Spotlight | R2R in the News

Learning and Development | Video

Welcome to the Pacific R2R Programme eNewsletter! We are excited to share our first issue with you as part of the Programme's exciting website redevelopment work to showcase progress, and enhance information and knowledge sharing on the programme, experiences and lessons from implementation.

As the world turns towards the second half of 2020, COVID-19 continues to restrict activity in and between many countries. And despite challenges, it has ensured that communities, national governments and international development organizations remain adaptive in their approach to providing on-going services to constituents.

To that end, we are thrilled to showcase the progress of some of our projects, which our Pacific R2R staff, colleagues and partners continue to deliver. We hope you enjoy it!

[Read More](#)

Around the Region

Niue declares 40% EEZ as Marine Protected Area

Niue Cabinet passed the Niue Moana Mafu Marine Protected Area Regulations 2020 in April, formalizing the protection of 40% of Niue's Exclusive Economic Zone (EEZ) – 127,000 square kilometers. [Read more](#)

Coming Up

Pacific R2R Fifth Regional Steering Committee Meeting

Date: 21 - 23 October, 2020

10th Pacific Island Conference for Nature Conservation and Protected Areas

Date: 24 - 27 November, 2020

R2R Quiz

IUCN | UNITED NATIONS GLOBAL Ecosystem RESTORATION 2021-2030

VIRTUAL TALANOA: Preventing, halting and reversing the degradation of ecosystems in the Pacific

Friday, 4 June 2021
12.00 - 3.00PM (Fiji Time/GMT+12)

Five thematic parallel sessions

People
Land
Water
Oceans
Climate

World Environment Day 2021

Hon. Dalton Tagelagi @PremierNiue

Continue the good work and uphold the Pacific Womens true values @PacificR2R

Pacific R2R @PacificR2R · Mar 8

Today we celebrate #InternationalWomensDay recognizing some of our #PacificR2R champions who #ChooseToChallenge2021 for societal well-being, economic empowerment, and sustainable development in the region and around the world 🙌🙌🙌🙌 #TogetherWeCan #LeaveNoOneBehind #ThisIsR2R



This is R2R

Balanced and equal participation of men and women in formulating and implementing policies and programmes is essential.

R2R Champion
Dr. Josie Tamate
Director General
Ministry of Natural Resources

#PacificR2R
#IWD2021
#ChooseToChallenge

8:12 AM · Mar 11, 2021 · Twitter Web App

1 Retweet 3 Quote Tweets 8 Likes

The 'Hows' of Social Marketing

Kotler and Lee (2008, pp. 220-221) offer their tried and tested 10 planning steps to formulating a social marketing plan. While the steps appear linear theoretically, they spiral with each step getting revised as needed as the process unfolds.

SG 4.1 – Describe the background, purpose, and focus for the social marketing planning effort

- ✓ Explain why the action is needed.
- ✓ What social issue and population will the plan focus on, and why?
- ✓ What social issue (problem) does the plan intend to impact?
- ✓ How big is the problem? How does it affect the target group/s?
- ✓ What are its social consequences, costs to the economy, the community, and the household? How does it impact the household income, the community life, or their well-being?
- ✓ What population and broad solution will the plan focus on, and why?

SG 4.2 – Conduct a situation analysis

- ✓ **Analyse the situation and the factors influencing the receptivity of the target audiences/groups.** The SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis or other analytical tools (like PESTLE – Political, Environmental, Social, Technological, Legal and Ethical – may be utilised also to fully understand the situational factors of the audience.
- ✓ In addition to looking at situational issues affecting programmes, it is useful to look at enabling factors and barriers to adopting the behaviours that the social marketing effort is promoting. What factors are facilitating or hindering the target group's response?
- ✓ *How does one characterise the situation in terms of strengths, weaknesses, opportunities, and threats? Make sure to conduct a literature review and environmental scanning of programmes on similar efforts and harvest the lessons learned.*

SG 4.3 – Select and describe the target audience/group

- ✓ Identify the target groups and behaviours that need to change. Identify the specific audience who will be the primary targets of the intervention.
- ✓ Research about the target group/s. Utilise qualitative and quantitative target group research such as surveys, focus groups to gather insight into the target group knowledge, attitudes, and behaviours.
- ✓ Segment the audiences. into groups who share similar beliefs, attitudes, and behavioural patterns. Rural dwellers, urban dwellers, by pre-occupation (fishers, farm tenant, entrepreneur, homemakers), by age (elders, youth), etc.
- ✓ Which of their behaviours must be influenced?
- ✓ What changed behaviour are expected of them? Accept a new one? Reject a potential undesirable behaviour? Modify a current behaviour? Abandon an old behaviour?

SG 4.4 – Set marketing objectives and goals (Behaviour, Knowledge, Beliefs)

- ✓ *What are the measurable, achievable, relevant, time-bound goals of the marketing plan?*
- ✓ *Also indicate the desired behaviours the plan intends to influence, including the information target group needs to know, and things they need to believe to change behaviour.*

SG 4.5 – Identify audience barriers, benefits, and the competition

- ✓ *Identify the key factors that will influence the audience's decision making.*
- ✓ *What are the barriers, competition, benefits, and the influence of others that are important to them?*

SG 4.6 – Craft a desired positioning statement

- ✓ As findings from research on perceived barriers and benefits of the behaviours are emphasised, how do you want the target group to see the desired behaviour and its benefits relative to alternative/preferred ones?
- ✓ Based on the understanding about the target group/s understanding, how will the proposed behaviour be positioned and promoted with the target group(s)?



Participatory 3-dimensional model, Nuku'alofa, Tonga. Photo by Tonga National R2R Project

SG 4.7 – Develop a strategic Marketing Mix

✓ *Develop the marketing strategy using the 4Ps, 4Cs Models and 4As Framework*

A Note on the Marketing Mix Models

A bedrock principle in marketing is the 4Ps Marketing Mix Model (Product, Price, Place and Promotion)³² introduced in the mid-1960s. The model has been widely popular in shaping the marketing strategies of business. Despite its dominance and longevity, it has been criticised, to be narrowly seller-centric, as if producers of goods and services drive the marketplace.

Times have changed and more and more, customers have been running the market and shaping the marketing perspectives of businesses. The 4Cs model (Consumer, Cost, Communication, Convenience)³³ which takes the perspective of the customer, was introduced in 1990, while the 4As Framework (Acceptability, Affordability, Awareness and Accessibility)³⁴ was introduced in 2011. Taken together, all these models help develop effective marketing strategies and tactics, which can be applied not only in commercial marketing, but also social marketing. They all help diffuse information that are greatly needed towards advancing social change. As defined by Kee (2017), “diffusion is the communication process through which an innovation travels or spreads through certain channels from a person, an organisation, or any unit of adoption to another within a social system over time”. It includes dissemination in actively pushing and promoting an “innovation toward members of a social system”. 4Ps, 4Cs, and 4As directly and indirectly embed the diffusion framework in both advocacy and social marketing activities³⁵.

32 Borden. 1964.

33 Lauterborn 1990.

34 Sheth and Sisodia 2011.

35 Kee 2017.

OFAGA HE PULOTU – Tumukifonua 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



Niue National R2R Project Marine Learning Centre.



Sanitation and water quality awareness animation video by Tonga IW R2R Project.

HOW TO CONSTRUCT DRY LITTER PIGPEN

1. Use wire cutter to cut the side panel to 3.6 meter lengths (use heavy duty panel wire or something similar that allows proper ventilation).
2. Cut two 1.5 meters of 2x2" timber for front post and two 1.3 meter from 2x2" timber for back post (local timber is a good alternative).
3. Tie the side panel with post using tight wire.
4. For roofing, cut 2 hole to corner of 2x4" timber (2.4 meters length) and insert stick to the four points (front and back).
5. Cut five lengths of 2x2" timber (2.4 meters) for roofing as shown in the design.
6. Fill the pen with bedding of compostable dry materials (rice residue, sawd).
7. Add compostable dry litter to the pen daily, especially covering pig manure.
8. Remove excessive compost material once it measures 10cm above the pig pen ground level.
9. Remove dry litter and manure and pile for compost outside and away from the pigpen for further composting.

WHAT IS DRY LITTER PIGGERY

Dry litter technology offers suitable solutions for small-scale piggery operations. The technology focuses on beneficial use of nutrient resources through natural composting processes. The DLT technology incorporates the use of carbon materials, shaping pen floors, and requires no water for pen clean-up. The pig wastes are mixed into the carbon rich materials and discharged out of the pen. Through this process, odor is significantly reduced in the system. The carbon risk is then properly composted, resulting in a rich, organic soil amendment for crop production.

Common features of DLT piggeries

- Use mesh wire fence or coconut log to fence around pig pens, but allow sufficient spacing for better exchange of air and avoid high temperatures in the piggeries.
- Full cover roof of piggeries is encouraged, otherwise if too costly and the pig pen is relatively large, then provide enough roofing for pig to rest and not directly impacted by sun and rain.
- Cover entire pen floor with dry organic bedding material, daily.
- Pig manure is composted.
- Register the approved design from MELAD.

Contact
Environment & Conservation Division
Ministry of Environment Lands and Agricultural Development
Website: melad.gov.ki
Phone: 7323080; 7323811
Bikarua, Tarava 1 P.O. Box 234

PIG WASTE MANAGEMENT SYSTEM DRY LITTER TECHNOLOGY

GOVERNMENT OF KIRIBATI
MINISTRY OF ENVIRONMENT LANDS AGRICULTURE
ENVIRONMENT CONSERVATION DIVISION

Table 19. The Marketing Models: The 4Ps, 4Cs, 4As in a Nutshell

4Ps Model (1964)	4Cs Model (1990)	4As Framework (2011)
The marketing strategy from the seller's perspective	The marketing strategy from the customer's perspective	The set of conditions a marketing strategy should consider achieving marketing success
Product – the features of the product offering	Consumer – their wants and needs	Acceptability – whether a product or service meets or exceeds the needs and expectations of the target group
Price – the actual amount the consumer is expected to pay	Cost – the totality of costs customer incurs	Affordability – whether target groups have the economic resources and willingness to pay a product's price
Promotion – the strategies to promote the product	Communication – the strategies to communicate the benefits of the product	Awareness – whether customers are adequately informed about a product's attributes and benefits
Place – place where the product will be provided to customer	Convenience – the channel/s of distribution	Accessibility – whether customers can easily acquire and use a product or service considering availability and convenience

Consider the following guide questions during the formulation of the marketing mix:

- ✓ Acknowledging that the product must be something that the target perceives as satisfying their need or want, how can the 'product' be better designed to make it both practically and psychologically more attractive or acceptable to the target group? What features can be added to it to counter any of the targets' apprehensions about buying it?
- ✓ How can the 'product' be 'priced' to make it within the reach of the targets' economic resources, and within the threshold of their willingness to pay? What can be done to make the product be perceived as 'value-for-money', and/or worth every cost (whether money, time, effort)?
- ✓ What are the best possible ways to effectively communicate to the target about the 'product'? Considering that the targets are the public at large, with possibly varying levels of literacy, what are the media and channels that should be used to foster meaningful dialogue about social transformation?
- ✓ What are the ways to make the 'product' easily within reach of the target, when they need it, when they want it?

Answers to the above questions will help develop strategies that will create awareness of R2R interventions – local regulatory policies, measures to reduce pollution, re-settlements, waste segregation, constructing septic tank, shifting to different farming, or fishing systems – especially the target group knowledge, awareness, and attitude. However, higher awareness is largely ineffective at creating lasting changes in behaviour unless the interventions will reduce the perceived barriers – reduced household incomes, cost – in order to effectively adopt the desired behaviour change.

For example, if the intervention requires rural women and men to shift to agroforestry and gradually stop "slash and burn" farming in sloping or erodible areas within the watershed, the illustration below helps visualise how social marketing applies by selling the "desired behaviour" and their willingness to pay the cost. In this case, the women or men farmers, the government or the NGO implementing the R2R project and the landowner, need to sit down and address the barriers in order for the farmer to change. The R2R plan at the site level will then market the "change" with the support and agreements of the three players.

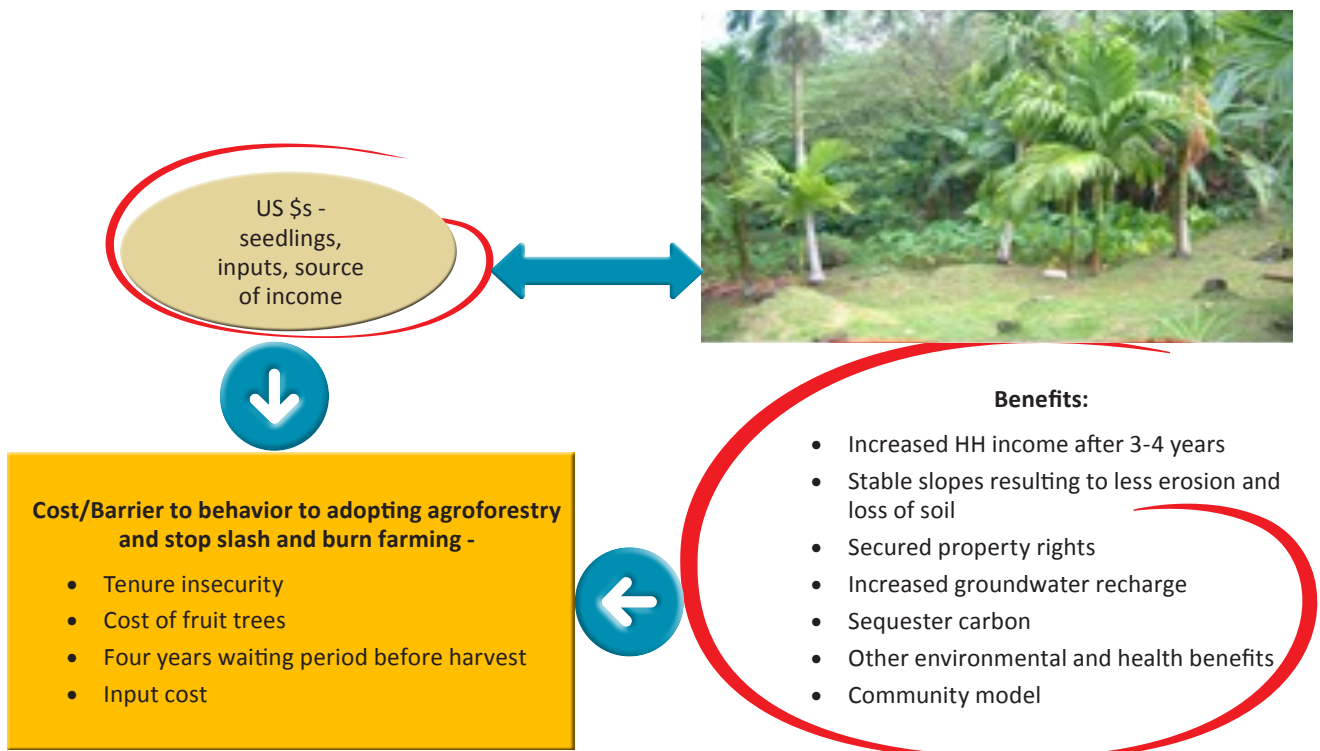


Figure 11. Illustration of how social marketing applies by selling the 'desired behavior' to target communities and their willingness to pay the cost

Tougher than Gita

Ridge to Reef resilience or not

NIUKU'ALOFA (Eavire News): Tonga Ridge to Reef project sites around the Fanga'ata Lagoon Catchment Area were inspected in different proportions during Cyclone Gita, which hit Tonga on Monday, February 12.

An inspection team from the Department of Environment, which included Technical Officer Petero Onesa, Staff Vavere Sika and National Communications Information Officer Ilona Tora, inspected the sites at the Popua Nursery, Vaini Eco-Tourism Site (Nakafetofe), Haa Mangroves, Nukuleka, Manuka, Longoteme and Nukuleka sites on February 20.

Both negative and positive impacts on project interventions were sighted around Fanga'ata Lagoon, where 55% of Tonga's population resides.

A number of ecosystem-based interventions were implemented including strengthening of coastlines through planting of mangroves, coastal trees and temporary revegetation.

Many of the mangrove areas rehabilitated are still growing well, despite the cyclone damage recorded around them. This could be seen at the Haa, Hahonga, Talanoa and Nukuleka sites.

Coastal trees on the coastline from Mabaunga to Manuka were destroyed, with the exception of the temporary intervention established in Manuka.

The temporary intervention project was launched in January by the Chief Executive Officer for MELDEC, Mr. Paula Ma'u.

Other impacts included damaged fences around mangrove rehabilitation sites because of fallen trees, missing signboards and information boards at the sites, and damaged 'Water' signboards.

The inspection team picked up 15 'Water' signboards that were wrecked along the road advising people against filtering along the road from Ma'ulanga to Manuka.



Part of the mangrove forest in Nukuleka (top), damage at the Popua Nursery (above) and signboards blown off by Gita. Photos: R2R MEDIA

Organized by UNDP/CHR Regional Office for the Pacific

PACIFIC INDIGENOUS PEOPLES AND CLIMATE CRISIS: Leveraging Lessons from the Frontlines

HYBRID WORKSHOP EXPLORING THE INTERSECTION BETWEEN CLIMATE CRISIS, PACIFIC INDIGENOUS PEOPLES' HUMAN RIGHTS AND ACTION-BASED RECOMMENDATIONS TO LEVERAGE RESILIENCE-BUILDING, AND CLIMATE MITIGATION AND ADAPTATION.

Contact Catherine Murupaenga-Ikenn (catherine.m-ikenn@one.un.org) for more information.

DATE: 13-14 April 2021
VENUE: Suva, Fiji, and online
REGISTRATION:
<https://forms.gle/pysquxkeefXup276a8>

Nature-based Solutions Practical Steps for Implementation

Join us for the thematic session at **Asia-Pacific Climate Week 2021!**

Panel 1: NbS - Tools for implementation in islands
 Panel 2: Building with nature in Asia

Wednesday 7 July 2021
 11:00 ICT / 13:00 JST / 16:00 NZST
 Register via: <https://tinyurl.com/APCW21>

Image Credit: Kanenori / Pixabay

Part of: **APCW2021 Asia-Pacific Climate Week 2021** Local Thematic Session 6-8 July

With participation from:

FSM Ridge to Reef (R2R) Project Newsletter

What's Inside:

- Page 2: Kosrae and Palau's plans for World Environment Day and Youth's Green Day
- Page 3: Knop Community Management Planning and Needs Assessment Consultation in Chuuk
- Page 4: Blue Guide to Coastal Resilience Training in Yap

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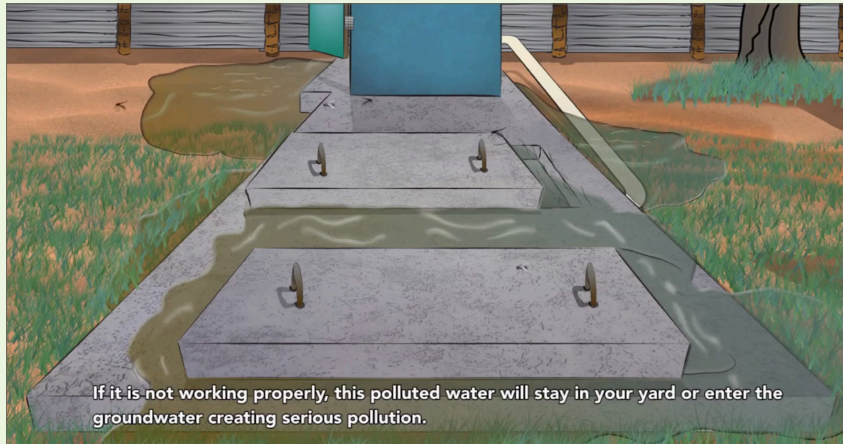
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"Protect our Home, from Land to SEA"



Nature-based resilience Governance

PHASIA-PACIFIC CLIMATE CHANGE ADAPTATION FORUM

Panelist: **Mr. Joshua Wycliffe**, Permanent Secretary for Ministry of Waterways and Environment, Government of Fiji

Panelist: **Dr. Pasang Sherpa**, Executive Director of the Center for Indigenous Peoples' Research & Development (CIPRED)

Panelist: **Dr. Somkiat Prajanjanwong**, Secretary-General, Office of the National Water Resources, Thailand

Panelist: **Dr. Fononga Vainga Mangai-Malileo**, Knowledge Management and Communications Advisor, Pacific Ridge to Reef Programme

Panelist: **Dr. Raghika Murti**

GEF 5 STAR (Nauru R2R Project) NEWSLETTER

Special Edition (10-Jan-2020)

Recognition of Ridge to Reef Project work in Nauru

Special points of interest:

- Home Remedy for High Blood Pressure
- R2R Staff Profile

Inside this issue:

- Environment Management Bill Consultation 1
- Compost Training with Max Dowedia 1
- Esau Ono Video Competition 2
- Kitchen Garden Update 2
- Seeding Training TTM 3
- Recognition of R2R work on Nauru (Minister of DE) 4
- Staff Profile/ Home remedy 5

Compost Training with Max Dowedia

Compost training was conducted in Yaren community. Compost is organic matter that has been decomposed in a process called composting. This process recycles various organic materials otherwise regarded as wasted products and produces a soil conditioner.

R2R technical support officers and Agriculture extension officers attended the training. The training was carried out by Max Dowedia who is our expert from Nauru Farmers and Growers Association.

Participants group photo

Photo by: Deborah Dowedia

Participants formulated their team to carry out the Environment Management Bill consultation on the 9th of December 2019. The session was scheduled for one day, having community reception from 9am to 1pm and Non-Government Organizations and Private sector sessions from 2pm to 5pm.

Many participants attended the consultation and interacted with numerous comments and questions in regards to the Environment Management Bill to the team. Mr. Dowedia took notes on comments to discuss with the Environment team and the Legal adviser.

Thanks to Ridge to Reef for funding and providing resources to cater for this Environment Management Bill consultation.

of manure: spread consistently on top of leaves. Repeat the process by layering leaves and manure alternately, watering just enough in between the layers until it is at least 1 meter high to generate enough heat of proper decomposition. Turn compost weekly and it will be ready from 8 weeks. The participants from the Compost Training gained new knowledge as for some its just a refresher, the training concluded with a discussion over lunch.

In developing the site level marketing strategy, the planners, and the implementing team must undergo a series of iterative questions to develop the mix. Kirby (1995) suggests a flow of that process:

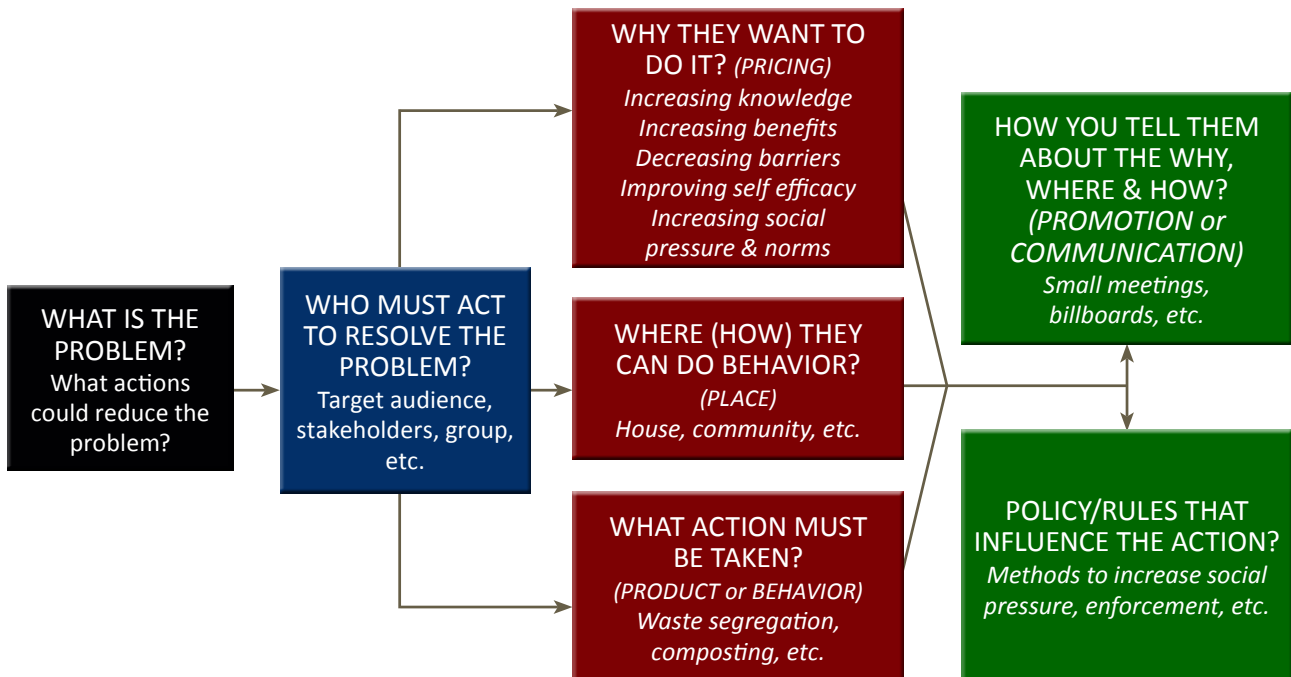


Figure 12. Iterative process in developing a social market mix for target adoption of desired behaviors by target communities.

SG 4.8 – Determine an evaluation plan

- ✓ Develop a plan for monitoring and evaluating the implementation of the social marketing effort. The plan should be able to answer, “Were goals reached? Was the programme on time and on budget? What worked well? What didn’t? What should be done differently next time?”

SG 4.9 – Establish a campaign budget and find funding

- ✓ Draw up a budget for implementing the marketing plan, including those associated with the marketing mix strategy, as well as any additional costs anticipated for monitoring and evaluation
- ✓ List the available and necessary resources – such as financial, human and infrastructure – needed according to the nature and goal of the advocacy plan. The estimated cost should be based on a proposed schedule and duration of activities for the advocacy implementation.

SG 4.10 – Outline an implementation plan

A simple plan (which could be a part of the R2R plan strategy at the site level) can just provide a summary of the steps that were discussed above. What is important, however, is that the desired awareness level, changes in attitudes, and actions on desired behaviour changes towards the protection, restoration of ecosystems; and regulation, compliance in the use of EGS are well-defined with strategies laid down to ensure that activities contribute towards the “buying actions”.

A Sample Marketing Mix to Promote Recycling at Household and Community Levels*

Points to Consider in Designing the Social Marketing Plan	Some Suggested/Recommended Social Marketing Tools (depending on the thrust of the programme)
<p>ACCEPTABILITY OF PRODUCT</p> <p>Consider the following to come up with strategies that will enhance the perceived benefits of participating in recycling programme.</p> <p>What are the target group/s perceptions about...?</p> <ul style="list-style-type: none"> • The environmental concerns addressed by recycling (pollution, land space, resource conservation, employment, economic development) • The economic incentives to recycle (savings from composting biodegradables, economic gains from turning trash to cash) • Values such as caring for the environment, frugality and thriftiness associated with recycling • Augmented products that may be offered in a recycling programme (health benefits, social benefits, psychological benefits from participating in a 'worthy' endeavour to conserve and protect the environment, etc.) • Recycled-content product quality and price • Environmental and economic benefits of purchasing recycled-content products • Simply throwing things away (the competing behaviour)? 	<p>Recycling involves the adoption of several related environmentally sustainable practices, which may include:</p> <ol style="list-style-type: none"> 1. Segregation and classification of wastes and placing them into appropriate receptacles 2. Follow the system and schedule of waste collection according to the type of wastes to be collected. 3. Recycling and reuse of specific wastes 4. Payment of garbage collection fee 5. Proper composting of wastes classified as biodegradable. <ul style="list-style-type: none"> ➤ Provide target groups with adequate information that emphasise the benefits of recycling and generate social pressure to conform to recycling behaviour. • Develop a message that is positive or negative, extreme, one-sided, or multi-sided depending upon the target audience, supplement the message with vivid statistics in the media to convey this. • There may be a need to not just highlight the environmental, economic, and social gains of recycling, but also the psychological gains. Tap into the target group's sense of pride of their environment, their heritage to help motivate them to do the 'right thing.' • Related to the above, develop a logo and slogan that will appeal to target groups, such as "I AM A STEWARD OF OUR ENVIRONMENT, OUR HERITAGE" in local language. For greatest visibility, said slogan and logo can be used in all communication tools and campaign collaterals. • Create a community event to launch the programme to be covered by media outlets. Solicit oral or written pledges of commitment to recycling from community leaders, business leaders, peer groups, local celebrities or sports figures, and other respected individuals and groups in the community. • Promote the recycling behaviour through yard signs, billboards or streamers in public spaces, trash bins at curbs. • Launch an award programme for participating in the recycling programme. • Sustain the recycling behaviour by providing feedback on progress made on waste reduction, through feedback mechanisms such as media releases, door hangers.

Points to Consider in Designing the Social Marketing Plan	Some Suggested/Recommended Social Marketing Tools (depending on the thrust of the programme)
<p>PRICE and AFFORDABILITY of the Product</p> <p>To ease the costs associated with recycling and to promote the target group's willingness to pay the price of participating in a recycling programme, consider the perceptions of target groups on the following:</p> <ul style="list-style-type: none"> • Time and effort involved in composting, sorting, and storing wastes • Time and effort involved in taking the sorted wastes to drop-off points • Actual fees for participating in recycling participation (e.g., price of recycling bags/receptacles, or garbage collection fees) • Physical discomfort/inconvenience of recycling versus simply throwing things away (the competition) • Price and value of products with recycled content 	<ul style="list-style-type: none"> • Provide incentives for participating in the recycling programme <ul style="list-style-type: none"> • Provide free or subsidised recycling bins/receptacles or composters to households and communities • Consider actual payment or premium for each material properly disposed for recycling/upscaling • Set-up a network of buyers and sellers of recycled products, including composts materials • Provide simple tokens and gifts (such as an eco-bag, or promotional pin) to early adopters of the recycling programme • Consider non-monetary award competitions among households and communities can be launched to promote longer-term behaviour change. • Consider disincentives for non-participation in the recycling programme. Note that ensuring adequate information campaign and securing community acceptance are important requisites before implementing a disincentive programme. Women and men, especially the most affected groups should be consulted before such undertaking. <ul style="list-style-type: none"> • Pay-as-you-throw fees • Non-monetary penalties (such as related community service). • Provide incentives to motivate target group/s to buy and use products that are recycled or made from recycled materials. In some places, the use of recycled products and products made from recycled content is not yet viewed positively. Such views will not help a recycling programme. The following may help elevate the perceptions about recycled goods: <ul style="list-style-type: none"> • Forge partnerships with producers and retailers to a buy-recycled or a use-recycled promotion at their store. Examples of such campaigns include providing discounts to customers who will bring their own bags and containers (to avoid use of single plastics, for instance), and providing freebies (such as 'buy-recycled' notepads to first-time buyers of recycled-content products. • Highlight recycled-content products at a trade fair, or a feature in traditional and social media • Tap credible resource persons, peer group members, community leaders, local celebrities to endorse use of recycled goods and products made from recycled contents.
<p>PROMOTION</p> <p>Consider the following to ensure that target groups are adequately aware about the recycling programme</p> <ul style="list-style-type: none"> • Media messages • Education and awareness materials • Strategies for changing behaviours • The sources of information the target group/s trust • The target group's level of access and use of various media (traditional such as radio, television, print), social media and others 	<ul style="list-style-type: none"> • The use of effective communication tools can reinforce the acceptability of a recycling programme. Make sure to pre-test any communication tools before implementing them on full-scale. <ul style="list-style-type: none"> • Use gender-fair and culturally appropriate images, colour and/or sound elements that are familiar to target audience segments • Develop a logo and slogan that will appeal to target groups, such as "I AM A STEWARD OF OUR ENVIRONMENT, OUR HERITAGE" in local language. For greatest visibility, said slogan and logo can be used in all communication tools and campaign collaterals. • Identify people who target groups respect (group members, community leaders, local celebrities, sports figures) and incorporate their support in the communication tools (flyers, posters, television programmes, radio spots, press and social media releases). Use their testimony and own actions on recycling and make these visible to the target groups. As much as possible, ensure equal representation of women and men as well as representatives of various groups, to drive the message that caring for the environment is everyone's business, and that everyone can contribute to this end.

Points to Consider in Designing the Social Marketing Plan	Some Suggested/Recommended Social Marketing Tools (depending on the thrust of the programme)
<p>PLACE</p> <p>Consider the following to make the recycling programme accessible and convenient to target users</p> <ul style="list-style-type: none"> The instructions/how-to of recycling at the household level The instructions/how-to of recycling at the drop-off/collection points The location of drop-off/collection points Safety and comfort, psychological risks Visual appeal Location of vendors of recycled-content products and their location on store shelves 	<ul style="list-style-type: none"> Provide user-friendly instructions on recycling at household level and community level <ul style="list-style-type: none"> Develop flyers that visualise the “Easy Ways to Recycle” at household level. The flyers can be distributed house-to-house. The flyers may also be rendered in larger formats (such as poster, streamer, or billboard) to be displayed in strategic public spaces The recycling steps can be demonstrated on television programmes (as a feature in a local magazine show), repeated in radio spots and included in press and social media releases. Designate accessible drop-off/collection points for sorted wastes. <ul style="list-style-type: none"> Community acceptance is key to making target groups adhere to a recycling programme. Make sure that they are consulted and informed about the location of these points. Install noticeable signs, “Just a few steps to a healthier environment,” “You can recycle that over here” enroute to and on designated spots. and self-explanatory instructions to encourage users. Ensure that the drop-off/collection points are physically accessible, safe, secure, clean, and visually appealing. Make it a spot that target groups will be encouraged to go to. A trash collection point need not be filthy. Ensure that the sorted wastes are collected from these drop-off points regularly. Overstocked waste bins are eye sores and will very likely discourage users. Enhance awareness about and visibility of recycled products <ul style="list-style-type: none"> Store signs to let buyers know where recycled products are sold Signs and shelf-talkers for recycled-content products on store shelves Distribute promotional materials buy-recycled message on note pads distributed at store

* Adapted from Landis, D. (2005). Social Marketing for Recycling in Ohio: A Guide to Understanding, Planning and Conducting Social Marketing Projects. Ohio Department of Natural Resources. Retrieved from <https://www.epa.ohio.gov/ocapp/recycling> and from McKenzie-Mohr, D. and Smith, W. (1999). Fostering Sustainable Behavior: An Introduction to Community-Based Social Marketing. New Society Publishers

KEEP SAWANI LITTER FREE



Call Hotline: 1520
Phone: (679) 331 1699
Email: info6@govnet.gov.fj



Dumping of any form of litter is strictly prohibited.
 Offenders will be prosecuted.








GEF Pacific International Waters Ridge to Reef Project

Tokangaekina 'o e Tafe'anga Vai mo e Matāhāhi ke Fakaihia 'a hono Malu'i 'o e Vai mo Fakasi'isi'i e Fakatamaki 'i he Matāfonua, 'i Tonga

NGAAHI LELE:
 1. Fakasi'isi'i e Ha'aha'a 'o e Veve.
 2. Fakatonga/Malu'i ha Ngaahi 'Eia.

NATURAL RESOURCES DIVISION
 MINISTRY OF LANDS & NATURAL RESOURCES
 Phone: 25508 or 22705, P. O. Box 5, Corner of Vaitāhā and Bypass Road, Vaoloa, Nuku'alofa, TONGA




“Integrating Watershed and Coastal Area Management for Strengthened Water Protection and Coastal Hazard Reduction in Tonga”

BENEFITS:
 1. Municipal Waste Pollution Reduction.
 2. Conserved/Protected Wetlands.



Kiribati Portable Dry Litter Pigpen



Benefits of DL piggery

- Produce organic compost for home gardening
- Pig will naturally turn organic dry litter mixed with pigs' manure, doing the work for you
- No cleaning of pig manure
- No odor from pigpen
- Reduce and help avoid water pollution, hence prevent health impact
- Pigs remain clean and healthy

Step by Step Guide

- Use wire-cutter to cut the side panel to 1.6 meter length (use heavy duty panel wire or something similar that allows proper ventilation).
- Cut two 1.5 meters posts using 2x2" timber for front post and two 1.1 meter posts using 2x2" timber for the back (local timber is a good alternative).
- Tie the side panel with post using tie wire.
- For roofing, drill 2 holes in the corner of 2x4 (1.6 meters length) and insert each to the four posts (front and back). Cut to 2.4 meters each of the five lengths from 2x2" timber as roofing rafters as shown in the design.
- Fill the pigpen with bedding using dry leaves and related materials.
- Compostable dry litter shall be added daily to the pen, and especially placing dry litter materials on top of any pig manure.
- Remove excessive compost material once the height of the compost measures 10mm above the pigpen ground level.
- Regularly remove used materials and manure and add to compost pile outside.

Materials & Tools

Four 2.6 meters square heavy duty wire
 Two 1.5 meters 2"2 timber
 Two 1.1 meters 2"2 timber
 Five 2.4 meters 2"2 timber
 Tie wire and plyer



Alternative design using local materials





Photo: Ekaboua John

For more Information Contact
 Environment Conservation Division, MELAD
 Phone: 74022895
 Bikienbeu Tarawa



SUB-GUIDE 5 (SG 5)

PREPARING, LEGITIMISING AND SEEKING APPROVAL OF R2R PLANS AT THE SITE, SUB-NATIONAL AND NATIONAL LEVELS



Launch of the Belau Watershed Alliance Action Plan with stakeholders.
Photo by Republic of Palau IW R2R Project

Introduction

The R2R plan provides a holistic intervention for protecting, restoring, utilising, developing, regulating, and managing the area from the terrestrial to the coastal and marine ecosystems that supply EGS for the benefit of the communities, enterprises, and the public³⁶. R2R plans are first anchored on the givens in a given planning unit because these are the variables that are more or less constant over the 5–10 years planning and implementation period. The boundaries, legal or politically defined or biophysically determined, are the main focus of R2R planning. The givens are: (a) bio-geophysical and climatic features which minimally change over time; and (b) applicable national, sub-national, and local/customary policies that pinpoint limits and opportunities for allowing or disallowing investments and land and resource uses; and for regulating and stopping certain policies and programmes and existing land and resource uses that endangers ecological stability, resiliency, and inherent capacities of ecosystems to provide EGS to numerous users and beneficiaries. Policies also pinpoint the key institutions and stakeholders who are key in setting up governance bodies and relevant processes.

Within the political jurisdictions, institutional mandates, and rights of stakeholders, their membership and active participation in the governance bodies signal their intent to ensure that the R2R area is protected, restored, regulated, developed, and managed consistent with policies. Within these political jurisdictions, the considerations of rights of stakeholders and their membership and participation will be gender and socially inclusive. Governance bodies serve as the “gatekeepers” with respect to “coordinating, facilitating complementation and collaborative efforts for R2R-supportive public and private investments, regulating and managing land and resource uses including extractive activities” and taking actions to “stop” current land and resource uses that gradually degrade the R2R assets – ecosystems and the EGS they provide.

R2R planning is not a sector activity. A sector might be the lead in R2R planning but with the involvement of other key sectors in the R2R planning area. Sectors that are relevant and play significant role and impact on the state of the ecosystems and the supply of EGS may include forestry, water, infrastructure, tourism coastal and marine, environment, mining, fisheries, agriculture, local government, and others. The policies, mandates, and rights of the stakeholders in the planning area can help in identifying the relevant sectors. Other considerations include demographic expansion and their need of social services, dependence of economic sub-sectors on EGS. Where communities, enterprises and businesses heavily rely on the condition of the ecosystems and EGS for their survival and sustainability, it is expected that there will be more willingness to participate in planning and adopt the R2R approach. It is important to highlight the key problems, issues, and constraints, including the opportunities and comparative advantages of an R2R site, as the take-off points from the analysis of the existing condition or situation.

R2R plans are based on comprehensive analysis of spatial and non-spatial data to ascertain the existing situation and/or condition of the planning unit area; challenges, comparative advantages, and opportunities; stakeholders envisioned future; and inter-sector, coordinated, complementary and collaboratively carried out strategies that are expected to have the least negative environmental and socio-economic impacts in the R2R area.

For the governance bodies, the R2R plans provide integrative analysis of the givens, policies, institutions, and governance systems in confronting challenges, threats, and opportunities in:

- a) protecting, restoring, regulating, developing, and managing bio-geophysical resources given the climatic conditions in the planning unit;
- b) formulating and implementing inclusive and constituent-responsive policies and programmes, especially in the delivery of infrastructure, social and economic support services to the population;
- c) balancing responses to the increasing market demand for ecosystems goods and services;
- d) minimising the impacts of climate- and human induced-related disasters; and
- e) diversifying, stabilising, and sustaining financial support for the replicative mainstreaming of R2R programmes.

The R2R plans are strategic in nature because they lay down how institutions, governance units, communities and private sector will jointly protect, restore, develop, regulate, and develop the land-sea form, land-sea forms in sub-national units, and land-sea forms of a given PIC. They identify courses of action and approaches that are based on clear and shared understanding of the givens, analysis of existing situation, challenges,

36 UNEP. 2021.

opportunities, comparative advantages, and stakeholders' envisioned future. Plans are prepared to build on existing initiatives but also mobilising resources (internal and external) to solve problems, resolve issues, meet needs, and seize existing, potential and expected opportunities that build on comparative advantages. Moreover, the R2R plan becomes the basis for determining and monitoring the environmental impacts, developing database that focus on key performance indicators, formulating and M&E system, generating lessons learned based on analysis and insights from M&E reports. In addition, R2R plans include strategic steps in ensuring gender mainstreaming in all actions and approaches used. There is cultural diversity within all PICs and the roles of men and women also differ in the different country contexts. Thus, an understanding of these cultural and gender diversity will ensure support for R2R work at site level.

Site level R2R plans have more detailed and ground level analysis of the existing situation to anchor the processes in framing the envisioned future of a defined land-sea form; in identifying, prioritising, and scheduling key strategies and activities; and in determining key performance indicators and how to measure and analyse them as part of M&E development. Site plans are prepared to realise the benefits of ecosystems that are protected, restored, conserved, and managed, especially for improving their inherent capacities and resiliency to sustainably supply EGS to various users and consumers.

Sub-national R2R plans have the same components as the site level plan but the area of focus is the boundaries of a sub-national area, the major land-sea forms in that area, including the selected replication sites. Sub-national plans include how the local governments or set of major stakeholders with support from the national governments, and possibly donors, will provide guidance in prioritising site level planning and implementation, adapt national policies, provide technical assistance, financial resources, site level governance that may include coordination, directing multi-sector initiatives in specific R2R sites, sharing information, conflict resolution, and leveraging additional resources for implementation. Sub-national plans provide criteria and process in prioritising R2R sites for programming replicative type of mainstreaming.

National R2R plans could have the same components as the sub-national plans but integrate policies and programmes of concerned national technical agencies on how they can modify and/or improve policies, programmes, inter-sector coordination and collaboration. National plans must specify needed improvements in policies and strategies, co-financing arrangements and in providing expertise and training support to the sub-national and site level planning and implementation.

Sub-national and national governments may aggregate results from site level R2R planning and implementation in developing their database and M&E plans as basis for updating and reporting to various branches of the government, donors, media groups and the public. Both the national and sub-national governments with the participation of donor agencies, NGOs, and academe may organise annual or bi-annual meeting and assessment of R2R implementation progress for developing more responsive support systems for implementation.

Planning will start with preparatory phase, followed by each stage of suggested R2R planning such as analysis of existing situation, framing the envisioned future, strategy, and M&E formulation, legitimisation, and approval processes. Each of these stages will be discussed briefly. Three levels of R2R planning are recommended for mainstreaming in PICs. These are the site, sub-national and national R2R planning levels.

SG 5.1 – Get ready for the R2R planning activities

Since R2R planning is not a sector planning exercise, the preparatory activities require that the members of the planning team represent or come from the key sectors – concerned technical agencies, local government, communities, civil society, private sector, civil society, and potential partners. Stakeholders are those that reside in or operate businesses in the area, have mandate, and depend on EGS for their livelihoods. The government-designated lead agency for the R2R mainstreaming appoints or engages a ridge to reef Manager or Coordinator. This person is empowered through an executive or special order by the lead agency to organise consultation and orientation with concerned stakeholders. Key topics to be covered during the consultations are:

- R2R approach,
- R2R guiding principles,
- R2R planning processes,
- composition of the planning team, and
- official letter from each group of stakeholders designating members to the R2R planning team.

Ideally, all members of the planning team should be familiar with the use of software for Word, spreadsheet, and Power Point. Familiarity with the area is a must. Minimum expertise and background of members of the R2R planning team are:

- biology-related courses – forestry, fisheries, coastal/marine, agriculture, environment,
- geography or engineering with skills and knowledge using GIS,
- communication and marketing, and
- community development.

Some of the key R2R guiding principles for planning are:

- Integrated, inter-sector, multi-sector planning.
- Policy-consistent – to all national, sub-national statutory and customary laws of communities. Involves recognition and respect to customary laws including indigenous and local knowledge and capacities.
- Inclusive of all key stakeholders.
- Governance-oriented – participatory, transparent, accountable, and responsible, especially generating, analysing, feed backing and framing the strategies in the protection, restoration, regulation, development, and management of ecosystems and EGS; in providing access to EGS users and consumers; etc.
- Gender sensitive.
- Evidence-based analysis based on available updated information.
- Spatial-oriented.
- Process-oriented, not a blueprint type approach. This means adaptability and flexibility with open minds on looking at the existing situation, incorporating the stakeholders' concerns, identifying viable strategies options for variables that are not within the control of the government, communities, and the private sector.
- Innovative, especially on generating options from the analysis of variables that are not within their control such as the bio-geophysical limits, climate, legislated policies, and customary laws.
- Adopting a service-orientation and the simplicity and willingness to help wherever, whenever, however and in whatever ways possible. TWG members, experts, consultants, technical staff act as "coach" rather than impose, create "roadblocks" or provide prescriptive solutions without proper consultations. Consultants help draw out, guide, and help process what the local stakeholders are saying, verbally or non-verbally.

As soon as the concerned agencies and stakeholders have assigned official members to the R2R planning team, the R2R lead agency conducts more detailed orientation on the planning process and prepares an action plan for the preparation, completion, and submission of the R2R plan for approval. At this stage, need for specialists and advisors may be identified for possible engagement. There could be areas of concern where members of the planning team lack expertise or with limited background.

SG 5.2 – Use the R2R planning activities as a tool to capacitate the team especially in the use of methods, tools, and techniques

The R2R planning process can be used as a capacity building approach if the cycle of orientation, training, field work, coaching and drafting different sections of the R2R plan is adopted. This approach also gradually builds constituency, offers broader and consistent exposure of the planning team with the key stakeholders and the R2R area, and facilitates the formation of downstream advocates, especially among communities, farmers, fisher folks, and individual and enterprise users of EGS. Each of the major components of the R2R plan – analysis of the existing situation, formulation of the envisioned future, strategy formulation, and identification of the environmental and socio-economic impacts of the strategies and key performance indicators – will require a combination of any of the following methods, techniques and tools that are available for the planners:

- Secondary and primary data gathering followed by desk work and field validation.
- Site visits, reconnaissance.
- Workshops with exercises followed by field work to carry out R2R-related planning activities e.g., data gathering, field validation, consultations, focus group discussions.
- Organising and documenting community consultations.
- Focus group discussions.
- Mapping and spatial analysis to generate thematic, derived, and composite maps.



James Cook University postgraduate certificate students sponsored by the Pacific R2R Programme conducting an assignment on rocky reef flats as part of Unit 1 Ecosystem Dynamics, Houma, Tongatapu, Tonga (2017).

- Problem tree analysis.
- Descriptive analysis.
- Generating and analysing basic statistics such as averages, total, sub-totals, etc.
- Time series analysis.
- Analysing trends, patterns, and seasonality.
- Laboratory analysis.
- Stakeholder analysis.
- SWOT analysis.
- Community mapping.

An activity plan simply lays down the following: what the R2R planning activity is all about, objectives, methods/technique/tools to be used, outputs, responsibility assignment, schedule and estimated budget.

SG 5.3 – Learn and understand the flow and outputs of components of R2R planning

R2R planning is a participatory process in preparing a road map with strategies and actions for implementation. Figure 13 (page 103) shows, the ideal process in R2R planning – at the site, sub-national and national levels – but with specific details and coverage of each level. The R2R plan is validated and endorsed by stakeholders – undergoes review, revision, and approval by various governance bodies such as tribal/ethnic group councils, locally elected bodies, boards, and technical agencies. R2R planning may cover various scales – site, sub-national and national. Advisors, specialists, and technical staff act as facilitators in the R2R planning, facilitate orientation and training including field works, provide technical guidance and expertise, and are responsible for putting together the R2R plan for validation, revision, and finalisation.

A. Analysis of the Existing Situation - Where are we now?

This section is simply the description and analysis of the current situation based on available data at the site, sub-national and national levels. This section helps establish benchmarks and starting points for visioning and developing strategies for actions. It paints the current reality on the ground with respect to the different aspects in the R2R area.

This section covers the bio-geophysical and climatic features, ecosystems and EGS, policies and governance processes, demography, economic sectors, infrastructure and social services support for the economy and population, susceptibility of the ecosystems, population, and the economy to climate and human-induced hazards, and ongoing public and private programmes and projects that are related to R2R management. The last section highlights what are emerging from the analysis of various sectors – problems, issues, needs; threats; constraints; comparative advantage of the area; and emerging opportunities.

In analysing the existing situation of an R2R site, a sub-national unit or a PIC, attention is given to the conditions of bio-geophysical resources including ecosystems, ecosystems goods and services; climate, especially annual and historical patterns and trends, and climate-related natural disasters; policies, institutions and governance processes that are affecting protection, restoration, regulation, development and management of the ENR and the EGS they provide; and the delivery of infrastructure, social and economic support systems to the affected constituents, the private sector and the public in general; and the overall impacts to the ecosystems and the economy of policies and programmes over time.

The analysis of the existing situation is the starting point for the evidence-based analysis, mapping, linking and overlay processes to identifying key problems, issues, constraints, and opportunities including comparative advantages of the planning unit. As earlier mentioned, the analysis provides inputs and benchmark to the visioning exercise and identifying strategies to reach the envisioned future with projected positive and negative environmental and socio-economic impacts of interventions.

The outputs of SG 1, SG 2 and, to a certain extent those of SG 3 and 4, can be used for the analysis of the existing situation for the R2R plan. Below is the generic list of key parameters that will have to be collected, validated, and analysed as basis for “painting” or understanding the current condition and/or situation in the R2R planning area:

1. Gathering relevant data and analysis using non-spatial and spatial techniques for the following:

- a) Bio-geophysical, climate, ecosystems and EGS – focusing on what exists or can be found in the planning unit, their relative sizes, conditions, occurrences, including the threat from both disasters – climate and human-induced. Use the relevant outputs – maps, excel tables, etc. of SG 1.
- b) Policies, institutions, and governance processes (protocols, institutional arrangements, governance bodies) that are related to environment and natural resources, climate change, disaster risk reduction, etc. Use the relevant outputs of SG 2.
- c) Property rights and uses in land, freshwater and sea including access to EGS for enterprises and consumption or household use. Use the relevant outputs of SG 2.
- d) Demography – composition (age class, literacy, ethnicity, etc.), distribution (urban-rural, upstream, downstream, etc.), and economic conditions (poverty incidence, household incomes compared to poverty lines, etc.) and how they are affected by climate and human-induced disasters. Use relevant outputs of SG 1 for inputs.
- e) Sex disaggregated data on informal sector employment, subsistence dependence on EGS and on cost benefit analysis of planned interventions.
- f) Economic sectors, their relative magnitude, and degree of dependency on EGS – agriculture (crops, fisheries, livestock), forestry, trade and commerce, industries (mining, manufacturing, shipping, etc.), tourism.
- g) Infrastructure support for the population and the economic sector (roads/bridges/ports, communication, sanitation, water, energy) – how they impact access to ENR, EGS and how they are affected by climate changes. Analysis should also include adequacy of infrastructure to meet the minimum standards in rural and urban areas for their economic activities and social service needs.
- h) Social services support for the population and the economy, their availability, adequacy, and how they are affected by disasters (climate and human-induced).
- i) Susceptibility/vulnerability of ecosystems, EGS supply, communities and their livelihoods, infrastructure and social services, and urban areas to climate and human-induced related disaster. Use the relevant outputs of SG 1 as inputs.
- j) Ongoing R2R related programmes – donors, public, private, local, national communities. SG 1 outputs could help generate information for this sub-section.

The analysis should be able to capture the key ecosystems in the R2R planning area and provide listing of major EGS that provide benefits to the populace. Link the EGS with the R2R area’s productivity, ecological stability, resiliency, water supply, micro-climate, etc. The EGS list may include any or all the following:

- Provisioning – such as water, medicines, timber, non-timber, timber, food, fish, etc.
- Regulating – water and climate regulation, pests, and diseases, prey, and predators, etc.
- Cultural/spiritual enrichment – religious places, etc.
- Supporting capacities that enhance productivity, stability, ecological balance, regulation in the R2R area.

One reason for adopting R2R is to somehow reduce the susceptibility and vulnerability of ecosystems, communities and their livelihoods, infrastructure and social services, and lives in the urban areas from the impacts of climate change and human-induced disasters. With the spatial analysis, this can be highlighted as to the location, degree of susceptibility and degradation level of the ecosystems. Previous studies or reports and other reliable sources may be used to describe the susceptibility to

climate changes especially to major natural hazards (landslides, flooding, tsunami, drought) – types of disasters, relative area covered by susceptibility, period of occurrences, historical record of disasters and rehabilitation cost, if any, and trends.

2. **Identifying and prioritising problems, issues, and threats** with respect to ENRM, ecosystems and EGS, ENR policies and governance; disasters; economy, and infrastructure and social services support to the population and economic sectors. Prioritise the problems, issues, threats, and constraints accordingly to the perceived capacity of the stakeholders to solve, resolve and confront these concerns. Prioritisation of these problems and threats must be at total community level and also be gender specific, considering the vulnerabilities of different sectors of communities and how existing traditional institutions and mechanisms inhibit their ability solve, resolve, and confront concerns identified. Discussing the impacts of these concerns over a period of time can help in the discussion.
3. **Discussion of the comparative advantage of the R2R planning unit** with respect to ENR assets, climate, institutions, demography, economy, infrastructure, and social services support. Comparative advantage of an R2R area is simply its “edge” to produce or sustain the EGS when compared to similar type of R2R such as one watershed with another watershed as a source of water for the urban areas. Comparative advantages combined with favourable emerging opportunities are excellent starting points to anchor doable strategies towards achieving the envisioned future of an R2R area. Another example is the agro-climatic condition of one island compared to another island to produce certain agricultural crops to meet the local and export needs.
4. **Discussion of emerging opportunities** for improving ENRM, ENR policies and governance, economy and infrastructure and social services support for the population and economy. Which of these offers as the most strategic “starting points” for improving the R2R area?



B. Envisioned Future – Where do we want to be?

With a deeper and broader shared understanding by the key stakeholders (national, sub-national and local) of the current situation, they should be encouraged to “envision” or dream the desired future of the R2R planning area with respect to the ecosystems and EGS, communities, economy, and overall resiliency. The formulation of the envisioned future is also anchored on the “aspirations” of the stakeholders, especially those who have been in the R2R area for a long time. The envisioned future facilitates the process of identification, assessment and prioritisation of strategies, interventions and measures that will contribute towards the vision, mission, goals, and objectives (VMGO). The crafting process requires the inputs of the stakeholders and support, clarification, facilitation of the planning team. Technical experts, scientists, civil society, informed community leaders and policy and decision makers may help in providing more explanations and/or feedback. The crafting of the envisioned future should be gender inclusive and to be targeted at different sectors of the community. This is to ensure that the visioning exercise includes a community outlook that is gender sensitive and inclusive.

The visioning exercise is the first step of a journey of “begin with end in mind” mind set. However, that vision must be anchored on the past (lessons learned), current reality (analysis of existing situation), and future possibilities as perceived by the stakeholders. A participatory process is required in crafting the envisioned future – a view of a realistic, credible, attractive future and a condition that is better in some important ways than what now exists³⁷. In the words of Bennis and Nanus (1997), *“Involving others in the visioning process allows the participants to share their values and dreams, bring broader range of viewpoints and expertise into the search for a new direction, and makes it easier to gain commitment to the vision at the end of the process”*³⁸. The envisioned future in the R2R area serves as the “true north” of the governance body, the R2R management team, hired consultants and specialists, and donors and related sectors as they contemplate and plan investments or activities³⁹. The visualisation of the “envisioned future of the R2R” shown in maps or infographics is going to be of value to the advocates and social marketers of the R2R management and implementing teams.

The stakeholders’ envisioned future for forests, agricultural areas, protected areas, customary land and sea areas is stated as “vision, mission and objectives” (VMOs or sometimes VMGs where the G is goal). The VMOs normally emerge from the stakeholders’ expressed desire based on their understanding of the existing conditions in the R2R area, which is the source of EGS that impact the environment and socio-economic conditions of the population. At the site level, the VMOs are stated in the context of larger goals of the sub-national and national planning frameworks.

The envisioned future of an R2R unit has three components: Vision, Mission, Objectives (VMOs).

Vision

At the minimum, it covers three parts: (a) envisioned conditions of the ecosystems and their capacities to supply EGS to the economy and population, (b) the socio-economic well-being of communities, and (c) the capacities of the governance bodies to govern and manage the R2R to ensure that policies that reflect the expression of the constituents are carried out and implemented. The time frame for a vision may be more than the R2R project covers. Thus, it is suggested that the vision is based on:

- Shared understanding of the current situation
- Stakeholders’ aspirations or dream on the future of the R2R area
- Minutes of meetings with upstream and downstream stakeholders – policy makers and technocrats, and communities, especially the ethnic groups, farmers, ordinary citizens, workers, and fisher folks.

Mission

The mission statements are written declarations of the intentions of the governance body, land, and sea management units, communities, and civil society on what they intend to carry out for the benefit of the present and future generations in the R2R area. These statements emerged from “*core purpose and focus that normally remains unchanged over time*” of the stakeholders with respect to the protection, conservation,

37 Bennis and Nanus 1997.

38 Ibid.

39 George 2015.

restoration, development and management of the ecosystems and their capacities to withstand threats, disasters, increasing demand and other unforeseen events and pronouncements. Again, these mission statements are built on:

- a) a set of core principles that the governance bodies with the communities and other stakeholders agreed to adopt; and
- b) statements of “for whom and with whom the R2R approach will be carried out”. Mission statements state what the vision will accomplish⁴⁰.

Objectives

Generate SMART (simple or specific, measurable, achievable, realistic, and timely) objectives with respect to achieving and/or contributing to the envisioned future of the R2R area. Examples can be the following:

- a) Protect an area of __ ha (terrestrial, marine and coastal area) as part of the total area to be protected.
- b) Restore an area of __ ha for ecological and improving EGS supply purposes
- c) Improve policies and programmes on the specific items: _____
- d) Improve individual and collective capacities of institutions, land and sea owners, and governance bodies to carry out R2R activities.
- e) Address landslides and flooding disasters in the following locations: _____
- f) Support the livelihoods of ___ households among the marginalised communities in: _____
- g) Reduce pollutants of the rivers, lagoons, lakes, and nearby coastal areas by ___%
- h) Improve solid waste management in ___ communities by ___%.
- i) Increase household access to potable water by __% in ___ communities using various means.

The visioning exercise among stakeholders with the facilitation of the R2R planning team and other experts will output the following as a result of key questions:

- VMOs with respect to the bio-physical resources, governance institutions and bodies, communities and enterprises;
- A map showing the envisioned future of the planning unit.

Suggested guiding questions are the following:

1. Vision Statements – What do the stakeholders envision with respect to the following:

- a) Overall condition and inherent capacity of the ecosystems in the R2R planning unit to sustainably supply EGS and help mitigate the impacts of climate and human-induced disasters?
- b) Stakeholders’ capacities to govern, coordinate, collaborate and complement inter-sector strategies in R2R areas?
- c) Resiliency of the EGS-linked enterprises, communities and their livelihoods, key infrastructure and social services and other relevant sectors from the impacts of climate and human-induced disasters?

2. Mission Statements – For whom and with whom is the R2R approach intended?

- a) For and with the EGS-linked enterprises and communities and the population (rural and urban) in the R2R area
- b) For and with relevant public and private sector with responsibility to address posterity

3. Objectives – Under each strategy, what objectives are to be achieved within the planning period? What are the targets with respect to capacity building, protection and restoration, policy improvements, livelihood, infrastructure and social support for communities, advocacy and social marketing, R&D, financing, M&E and institutional arrangements?

40 Adapted from <http://www.businessdictionary.com/definition/mission-statement.html>.

C. Strategies – How do we get to where we want to be?

A strategy provides the “general direction and its various components to achieve a desired state in the future”⁴¹. With the envisioned future, planning activities can now be directed towards the development of strategies followed by the process of determining the sets of inter-related results chains (from the activities and measures and their intermediate results and outputs, and the expected outcomes from the use of these outputs) trajectories, showing how the chains will contribute towards threat reduction and improvements in the enabling conditions that will subsequently move towards achieving the desired outcomes⁴².

Strategies provide a description of how institutions, governance units, communities and enterprises will achieve its VMOs starting from where they are, what they have and know, current threats, issues and problems, opportunities, and comparative advantages. Strategies may be grouped and sequenced according to what, how and when will these be implemented over the planning period. Below is a possible menu of R2R strategies. Prioritisation, location, extent, timing, methods, and number of investments will depend on the analysis of the existing situation and the envisioned future in the R2R area. This envisioned future in the R2R area has to be from the stakeholder’s perspective, their priorities, their aspirations and what women, men, young people, and vulnerable populations see as the best future for them. This has to be aligned to their realities, their existing capacities and their resource use needs and what they see as social safeguards that can sustain their safety nets.

1. **Establishing implementation structure, arrangements, protocols, and mechanisms** for coordination, complementation and collaboration, and adjudication activities. Activities will largely be based on the relevant outputs of SG 2.
2. **Improving policies and governance processes** for allocating, accessing, regulating, and ensuring compliance in the use of lands, rivers and lakes, coastal and marine waters, and ecosystems goods and services (EGS). Activities will largely be based on the relevant outputs of SG 2.
3. **Assessing and strengthening capacities of the R2R management team and the governance bodies** in project management, ecosystem protection and restoration, policy development, carrying out governance processes, regulation and enforcement, M&E, advocacy/social marketing, and communication. Activities to be largely based on SG 1, SG 2, SG 3, and SG 4.
4. **Protecting and restoring ecosystems.** Some relevant outputs of SG 1 will be useful for identifying the specifics – targets, location, type, method, costs- of the protection and restoration activities.
5. **Providing safety net support and measures for marginalised and affected communities** to improve their livelihoods, mitigate the negative impacts of climate and human-induced disasters, and access basic infrastructure and social service needs. Outputs of analysis of existing situation will be helpful in providing details of the activities.
6. **Carrying out cross-cutting strategies.** Activities under these will cut across the different strategies listed from items 1–5 above and may even include other coverage. The results of the analysis of existing situation and outputs of SG 1, SG 2, SG 3 and 4 activities are major inputs to conducting activities under these strategies.
 - a) Advocacy and social marketing campaigns.
 - b) Gender mainstreaming as a cross cutting issue in all interventions identified.
 - c) Research and development support may be the initial identification (for further verification) of key priority research areas in terrestrial water, and coastal and foreshore areas, wetlands to generate science-based information, analysis, and recommendations for enhancing environmental governance, modifying, or improving strategies, policies, and provision of technical and financial support to communities, enterprises and other users of ecosystems goods and services. Results might also be disseminated to target communities for extending technology, livelihood support and other poverty alleviation activities.
 - d) Enforcement of rules and regulations in the uses of lands, coastal and marine waters, and EGS. Activities should be carried out in collaboration with law enforcement agencies at the sites, sub-national and national levels.
 - e) Conduct of periodic M&E, assessment, analysis, and reporting.

41 Retrieved from <https://www.managementstudyguide.com/strategy-definition.htm>

42 Serrat. 2017.

7. Determining the duration and schedule of key activities. This is not straightforward, and must be planned carefully depending on the availability, willingness, preferred period of the different stakeholders, capacities of the R2R management team, results chain and logical framework, and priorities of the donor agencies or the governance bodies. The duration and schedule of activities are normally presented in table form using Excel templates with brief description.

8. Establishing, diversifying, and sustaining financing for R2R protection, restoration, regulation, development, and management activities. The first activity here is simply to get the total estimated cost for implementing the selected priority strategies with specific activities, targets, and outputs. Using standard costing that are employed by the government, donors, NGOs, and the communities will be helpful. As soon as the total cost is determined, the major challenge is simply identifying the sources of funds for the planned strategic activities. If donors are expected to finance certain activities, then there is a need to pin down other sources of funds for the other activities or simply defer and delay activities. Another major challenge is specifying how much counterpart funds, contributions, or labour and time equivalents of communities as they participate in R2R activities. All of these will have to be estimated with the intent to calculate funding gaps and possible strategies to cover them.

Thus, the key sub-activities under the strategy are:

- a) Workshops, desk work, and consultations to get the estimated total cost of R2R initiatives – 5 and 10 years.
- b) Learning and practicing sound financial management of donor and counterpart funds.
- c) Mechanisms to leverage investments with the private sector (for profit and non-profit) especially for items 2, 4, 6a, and 6b activities such as co-financing, co-investments, joint activities, etc. Pursuing co-financing arrangements with public and private sector for activities with mutual benefits offers promise in an R2R area especially if there has been prior shared understanding of the public and private benefits of improved ecosystems and the EGS they provide.
- d) Setting up land-sea-based payments for ecosystems goods and services. PICs have limited experience along this line and may need initial investments in capacity building, piloting and prioritisation depending on initial expression of interests.
- e) Organising fund raising campaigns for selected R2R activities.

Some of the strategies may have R2R-wide application if the governance bodies and donors desire to get the optimal impact of integrated ENRM strategies with priority investments to achieve VMOs. Targeting and specifying technical approaches may include discussions using the outputs of SG 1 and SG 3 and the analysis of existing situation. Some R2R-wide strategies are:

- a) Protection of major ecosystems across the land-sea areas at the site, sub-national and national levels when analyses show that these are key in improving resiliency and supply of EGS to the populace.
- b) Restoration and rehabilitation of degraded ecosystems and unique cultural and natural attractions.
- c) Improving the productivity of production areas in land, water, and sea for food, timber, fuelwood, industrial crops, non-timber forest products, medicines, industrial products, fisheries, etc.
- d) Tourism development and provision of related services.
- e) Regulation and enforcement of allowed and disallowed land and water uses especially those that show net negative environment and socio-economic impacts on- and off-sites. Examples may include the following:
 - mining, including quarrying
 - industrial and manufacturing
 - settlements
- f) Provision of social and institutional services – schools, clinics, barangay centres, recreational services, housing, etc. to marginalised and heavily affected communities (especially those in polluted areas, resettlements, etc.).
- g) Provision of infrastructure and technical support – roads, trails, potable water, sanitation, electricity, etc. in R2R production sites, settlements, and urban areas.

R2R plan implementation requires functional and institutionalised forms of coordination, collaboration, and inter-agency partnership with public and private sector to ensure that investments will have net positive environmental and socio-economic impacts and not result to less resilient ecosystems, communities, enterprises, and urban areas. Policies and governance bodies can make or break the effectiveness of governance processes to achieve the envisioned future. To ensure sustained gender mainstreaming effort for example, the inclusion of Ministries of Women or Social Departments in countries will ensure that GESI work can be institutionalised and there is collaboration with government on work carried out. This will also ensure that R2R work is aligned to government national planning mechanisms and priorities. Ad hoc governance bodies may not be able to sustain long-term support in R2R management unless they are anchored and initiated by the lead R2R agency or institution with inclusive, participatory, accountable, and transparent operations. It is suggested that the R2R planning team review the outputs of SG 2 as they recommend strategies to strengthen institutions and R2R governance bodies. Donors may support the initial operations of the governance bodies with the agreement that after project life, the concerned lead government agency picks up and institutionalises coordination, steering and facilitation of inter-agency partnership to ensure that the envisioned future in the R2R management plan is achieved.

Parallel to functional R2R governance bodies is setting up the R2R management office that will be mandated to implement, monitor, and carry out strategic activities based on the work and financial plans. The specific activities in setting up the management office with or without donor support may vary. Staff recruitment should consider the specific strategic activities for consideration in the evaluation and selection process. This means looking at qualifications and scopes of work of the R2R manager, key technical and administrative and finance staff; recruitment, orientation, and initial training requirements; reporting relationships; salaries and other benefits; tenure and performance evaluation requirements; and contracting or engagement mechanisms. There might also be the need to specify the structure of the R2R management office; to which lead agency it will be attached; clarify responsibilities/accountability/authority and relationships with the governance bodies and other similar type of coordinating offices.

D. Environmental and Socio-Economic Impacts of Strategies and Key Performance Indicators

When strategies are implemented, they will always have environmental and socio-economic impacts to the ecosystems, communities, livelihoods/enterprises, infrastructure, and social services and EGS. Table 20 shows an example of the possible impacts of policies, interventions, and actions in an R2R area in on- and off-sites. On-site impacts are those that are expected to occur in areas where the investment, action, or use occurs; off-site impacts are those that occur outside the influence area of the intervention.

For mitigating the net negative impacts of strategies and enhancing those with positive ones, a clear understanding of the impacts, communicating them properly through advocacy and social marketing activities is key. Participatory consultations with communities on proposed interventions and discussions on risks and assumptions and possible impacts of planned strategies can result in these risks being identified early and mitigating actions developed. There might be a need to generate a list of negative and positive environmental and socio-economic impacts of each of the strategies and investments on-site (where the strategies and investments will be carried out) and off-site communities and ecosystems such as those in agricultural lands, coastal and marine areas, fishing grounds, and settled and built-up areas. An Excel table showing the environmental impacts and the recommended mitigating measures will provide an overall summary (as in Table 20). Part of the SG 1 exercise includes the link of the impacts and mitigations with maps combined with discussion from comparison of impacts and mitigation in each watershed, sub-landscape, and type of policy-designated land use.

- ✓ With the table of expected impacts of strategies, analysis with proper measures may be completed. A simple environmental impact assessment (EIA) with statements of impacts and proposed mitigating measures could be the basis in formulating the R2R-wide environmental impact statements that are linked to a simple set of indicators to monitor performance and compliance. The EIA list should have the following:
 - a) Negative Impacts – ecosystems, communities, livelihoods/enterprises, ecosystems services
 - b) Positive Impacts – ecosystems, communities, livelihoods/enterprises, ecosystems services
 - c) Inclusion of social and cultural impacts that need to be considered and mitigated and/or enhanced throughout the course of the proposed projects.

Table 20. Sample table for determining impacts of R2R strategies on-and off-sites.

ENR Use, Development, Management, Policies, and Investments	On Site	Off-Site	Net
1. Converting natural forests to slash and burn or cattle farms	-	+	-/+
2. Protecting the natural forests from encroachments, poaching, and fires?	+/-	-	-/+
3. Supporting agriculture and fisheries production?	+	-/+	-/+
4. Overfishing in municipal waters?	-	+/-	-/+
5. Mining in a watershed?	+/-	+/-	-/+
6. Restoring degraded mangroves and riparian zones?	+	+/-	-/+
7. Restoring degraded terrestrial areas into agroforestry and orchards?	+	+	+
8. Access road to natural forests?	-	-/+	-/+
9. Improving policies on property rights (tenure rights) and regulations for harvesting planted forests?	+	+	+
10. Zoning in public lands, vulnerable areas?	+/-	+	-/+
11. Improving solid waste management practices	+	+	+
12. Enforcing laws on septage and waste water disposal	+	+	+
13. Strengthening governance processes?	+	+	+

To enhance clearer understanding of the environmental and socio-economic impacts and for measuring the periodic progress and results of R2R implementation of strategies, there is a need to measure and analyse key performance indicators. These parameters can then be used in developing a more elaborate M&EL system for the R2R plan. The suggested key indicators are the following:

1. Definitions and units for measuring progress in improving policies and governance systems. These could include policy instruments for the creation, membership acceptance, and inclusiveness of the governance body (steering, coordination, collaboration, complementation, conflict resolution); policies for improving R2R management, protection, restoration, regulation, and enforcement. They could include site, sub-national and national policy instruments.
2. Number of trained staff by category, number of completed training, completed training manuals/materials.
3. Hectares of protected and restored/regenerated ecosystems.
4. Number of households provided with livelihood support and other needed infrastructure and social services.
5. Reduction in USD amount of public and private expenditures to mitigate climate and human-induced disasters.
6. Amount in USD leveraged, internally generated from PES, raised in partnership with or invested by the private sector.
7. Increased compliance of laws and regulations regarding land, water and EGS uses.
8. Number of R&D completed, disseminated, and used as input for training, policy development, others.
9. Number of completed advocacy and social marketing campaigns with % increase in awareness, attitude change.
10. Number of completed M&E reports submitted based on periodically updated R2R database.
11. List of holistic community efforts that result from participating in projects activities.
12. Gender equality and social inclusion in all decision-making mechanisms at the community level.
13. List of traditional or customary mechanisms that have been or are being revived for resource management.

SG 5.4 – Complete the draft of the R2R plan

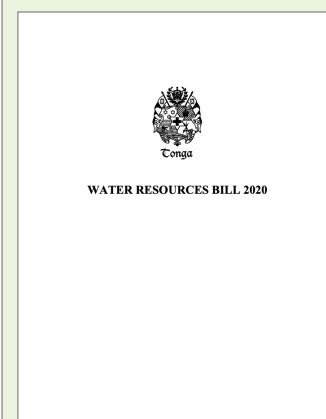
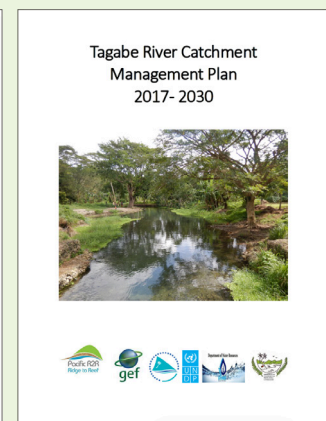
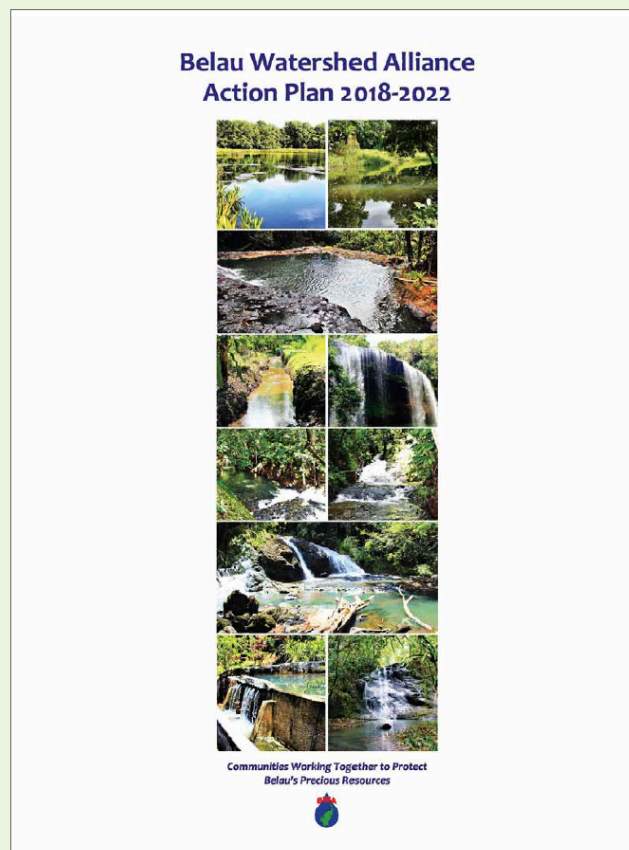
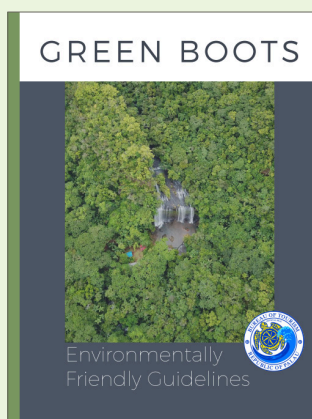
When all field work, consultations, analysis, and data gathering are completed, the R2R planning team sits down with the help of senior specialists/facilitators to putting in paper the R2R plan. The heart of the R2R is the analysis of the existing situation, envisioned future, strategies, and environmental and socioeconomic impacts with measures of key performance indicators. The site level R2R plan has more details with outputs and outcomes that are directly link with the strategies. The sub-national, and national R2R plans are more focused in providing policies, capacity building, and providing support for site level R2R implementation. The scopes and coverage, priorities, envisioned future, strategies, and key performance indicators might be different.

The R2R plan will have introduction, objectives of the R2R planning, methodologies, body of the R2R plan (analysis of existing situation, envisioned future, strategies, and environmental and socio-economic impacts), summaries, references, annexes (maps, minutes of meetings and consultations, endorsements, etc.). It is recommended that all members of the planning team develop a working R2R plan based on this SG 5. What each can contribute to the drafting process will depend on their skills and experience, and willingness to be part of the process.

SG 5.5 – Facilitate review, endorsements, and approval of the R2R plan

The approval of the R2R plan is not within the control of the planning team. However, part of the planning includes the team's efforts to facilitate stakeholders' review of the completed draft plan to generate feedback and suggestions for further improvement. The team can also use the review with different groups to validate data, analysis, recommended strategies, outputs and schedule of plan implementation. Endorsements from the meetings and consultations will support the process of advocating for the plan approval with higher authorities and donor agencies.

After consultations and review, the draft R2R plan is revised and officially submitted by the planning team to the proper authorities – governance bodies, technical line agency, sub-national governments, and donors – for further review and suggestions.



SUB-GUIDE 6 (SG 6)

MOBILISING, ORGANISING, ORIENTING AND STRENGTHENING THE R2R IMPLEMENTING UNITS



Pacific R2R Programme James Cook University postgraduate certificate students field trip to Soil Health Project Demonstration Site - Townsville, Queensland, Australia 2018. Photo by Navneet Lal

Introduction

Implementing the approved R2R plans starts the process of translating intentions into reality. The assigned lead agency at the site, sub-national and national level faces a challenging job. For R2R mainstreaming to be effective, an executive or legislative mandate is needed to empower the R2R lead agency. Donor-funded projects, especially those that focus on site specific pilot activities, must seek the “ownership” of the lead agency for these investments to be sustainable and have the institutional support of the lead agency. Donor-supported initiatives (bilateral, multi-lateral and NGOs) must anchor their R2R activities as part of the R2R framework plans. In these cases, the lead agency takes a proactive lead role in R2R governance bodies. In theory, the mandated lead agency is accountable, responsible and has the authority to seek support from local, sub-national and national stakeholders to pave the way for integrated, well-coordinated and effective implementation.

GESI strategies in the implementation of approved R2R plans should be at the design, planning, implementation, and monitoring stages. This will ensure a gender inclusive approach that includes all sectors of the community and ensures wider accountability and responsibility from targeted communities.

This sub-guide lays down some basic points on how the assigned lead agency and the R2R manager, with her/his technical, administrative and finance staff, can carry out their tasks and contribute towards the achievement of the envisioned future in an R2R planning unit. The sub-guide is also useful for donor-funded R2R-related projects that are in support of the R2R framework or mother plan. It highlights some of the unique features of managing the implementation of R2R initiatives. It will not detail how project management will be carried out since there are many references (web-based and otherwise) on how to manage project and initiatives.

Crafting the following Sub-Guide 6 (SG 6) guidelines assumes that the lead agency has selected or appointed a R2R Manager or Coordinator at national, sub-national and site levels depending on the scale of the mainstreaming initiatives. The R2R manager is the lead person and takes the main responsibility of all instructions arising from the specifics of SG 6. It is also assumed that the logistical requirements of the R2R management unit or office is provided.

SG 6.1 – Recruit the Right Mix of R2R Staff



Most Significant Change (MSC) regional workshop for the Pacific R2R Programme in Nadi, Fiji, 2019.
Photo by Navneet Lal

Unless staffing for the R2R management office has been identified and assigned, the R2R manager needs to start the process of recruitment – from drafting and finalising scopes of work of key staff, advertisement, selection, finalisation, contracting. Based on the approved R2R plan, he/she must ascertain how many and the minimum qualifications of the staff to be recruited. The R2R manager may need approval for engaging these persons unless specified to be pre-approved in the budget of the R2R plan. Recruiting the right staff and their mix – professionalism, proven character, competence, chemistry (a team worker), and commitment to environmental values (4 C's) – is a challenging task. CVs, interviews, and references might be resorted to validate observations of the applicants before final selection. The R2R manager may need to programme the recruitment process and may have to get advisors or other agency staff to help at this stage of implementation. Ideally, a recruiting team is in place to get the right people for R2R initiatives.

The number of R2R management staff may be variable depending on the coverage and scale of the plan. At the minimum, however, the R2R management unit should have at least the following types of professionals with the appropriate degree and background to ensure effective implementation.

- Technical persons as appropriate to the dominant land-sea forms that exist in the planning area. They could be those with fishery, geography or geodetic engineering, forestry, coastal/marine, resource economics, agriculture, or related disciplines. Ideally, the professionals will be able to use GIS, have community development background or have worked with communities, private sector, local government, and NGOs. All technical staff should be familiar with the use of Windows or IOS software. All staff should be able to carry out field work and M&E activities.
- Persons with strong communication, marketing, and media background and who have done extension work with communities or have worked with policy makers in the government and with NGOs doing advocacy work and are articulate in both written and verbal communication activities.
- Administrative and finance staff to support R2R implementation activities. If the project requires multiple and major procurements over the course of implementation, engaging a full-time procurement person will be needed to ensure fast delivery of technical services, materials, and inputs.

The main output of SG 6.1 is the engagement of key staff who will be involved in implementing the approved R2R plan.

SG 6.2 – Orient, Conduct Initial Training and Mobilise R2R Staff

With the staff on board, the R2R manager organises and conducts orientation with the technical, administrative and finance staff on what is R2R, the R2R framework plan and/or the R2R-related project plan that they must implement, and the tasks, structure, and responsibility of each person. Part of the orientation is to ensure that all staff understand and are convinced of the overall R2R direction, messages, the strategies, and tasks that must be planned and carried out based on the approved strategies, the relationships with each other and those with their partners and counterpart agencies, stakeholders, and the challenges and opportunities in R2R implementation. There might also be discussions on expectations, the R2R results chains, logical framework, outputs, outcomes, and key activities that require priority and attention. Gender mainstreaming should be part of the orientation process to ensure there is gender inclusion from the start of the project. If the Manager does not have the capacity to conduct gender orientation, then efforts must be made to link up with the Department of Women or Social Affairs, Women NGOs in country to partner in orientation and training work.

Figure 10 shows the overall link of the approved plan with the R2R implementation activities. The strategies emerged from the analysis of the existing situation that provides benchmark information including problems, issues, needs and constraints; envisioned future of the R2R area by the key stakeholders; and partly guided by the planning area's comparative advantages and opportunities. The R2R management office or R2R project management unit (if project and/or donor-funded) should carefully review and gain common understanding of the strategies, who and with whom and for whom are they intended, when, what resources are needed to carry them out, and what are the measures or key performance indicators required to periodically track implementation progress. Ideally, the key R2R staff with their partners and technical counterparts will undergo an orientation and training on the R2R approach, developing results chains to determine the interconnectedness and links of activities that will be carried out and contribute to desired outputs and R2R outcomes. There might also be the need to review key policy instruments, project documents, contracts/agreements, and commitments as part of the orientation and mobilisation processes.

It is suggested that part of the orientation includes a beginner's training on how to translate the R2R logic statement or theory of change (TOC) into result chains that can provide a clearer understanding of how the staff will have to collaborate, work together, and need each other to help achieve the R2R envisioned future in a planning unit. An advisor or specialist who has background in TOC may provide the initial input and act as facilitator. The orientation and training activities will result in the crafting of results chains that could provide significant inputs into revisiting the R2R logical framework and in preparing the annual work and financial plans.

At the end of SG 6.1 activities, the R2R management office should have an overall understanding of the overall direction of the R2R plan and how it is going to be implemented. Included in this understanding is the implementation structure, staffing, work processes, outputs, key counterpart, and clients and how to work with them and support them, respectively. A simple action plan may be developed outlining how the major activities for mobilisation will be carried out in the next few months.



Figure 13. Implementing the R2R Mainstreaming at Selected Level

SG 6.3 – Set up the R2R Governance Bodies

With background documents from the outputs of SGs 1, 2 and 5, and guidance from policy issuances that identify the offices and/or designated staff to be part of the R2R Governance Body, the R2R management team's major task is to facilitate the setting up and orientation of the members of the governance bodies. There could be several layers of governance bodies – site, sub-national and national – depending on the scale of mainstreaming R2R implementation activities. The governance bodies as discussed earlier, are the “gatekeepers” of investments to the R2R area and of actions to restrain, regulate, control, or stop existing investments, land and water uses. In most cases, however, created governance bodies have “recommendatory” powers and serve as the link to higher authorities. They ensure that staff work is complete, including analysis, review of draft policies, recommended programmes, or enforcement actions. Recommendatory actions, however, are based on what are allowed and disallowed in the R2R area as stated in existing policies (statutory and customary laws). Government agencies that look after women, the poor, youths should be part of governance bodies included in R2R work to ensure gender inclusion in all work undertaken.

The governance bodies – steering or coordinating committees, inter-agency task forces, clusters of departments, etc.– are created based on executive and/or legislative issuances. Their functions include reviewing/endorsing/approving protocols for coordination, collaboration, complementation of R2R strategies and activities of all relevant sectors in a defined R2R unit. Members of the governance bodies represent the interests and aspirations of the key stakeholders in the R2R area. Hence, inclusivity is indispensable. In some cases, stakeholders with business interests are non-voting members and only attend if they are invited. Reviews of recommendations, proposed policies and investments, especially those that will endanger or threaten the key ecosystems and the supply of EGS, are subjected to more rigid analysis and evaluation to ensure that the public welfare is not compromised. This is the reason why members must reach a level of common and shared understanding of the R2R approach, its multi-sector nature, interconnectedness of ecosystems, and the ecosystems' inherent capacity to supply EGS to everybody. In all orientation work with governing bodies, gender work should be a key component that needs to be addressed and the best strategies to ensure gender inclusion identified.



Kiribati R2R STAR Mini Inception Workshop in the Project Sites, Council members actively participating during the presentations. Photo by Kiribati National R2R Project

In most cases, the R2R management office is the de-facto Secretariat of the R2R governance bodies. Site level R2R governance bodies have more defined membership since it is easier to attribute the institutional, community and private sector stakeholders that largely depend on or function in the R2R area. Sub-national governance bodies are largely governmental in nature with the participation of aggregation of communities, business groups, smaller local government units, and civil society. National level governance bodies are set up with membership from key technical departments, elected officials from sub-national units, and aggregation or associations of various interest groups with vested interests in target sub-national and site R2R areas.

Without proper coordination and collaboration of the relevant sectors in larger area of R2R units, sector policies and investments could sometimes run into conflict with the interests of public welfare. The governance bodies serve as the link to practicing the principles of good governance such as transparency, accountability and participatory decision making. This is critical, especially with mining, logging, commercial fishing, commercial agricultural plantations, national and sub-national roads, and ports, etc. In these investments, governance bodies of sub-national and national R2R programmes must properly coordinate to assure the public that the R2R envisioned future is not compromised. Trade-offs must be carefully evaluated, especially for investments and policy issuances that will impact resiliency and stability of ecosystems. PICs have limited biophysical carrying capacity, especially in absorbing certain shocks such as water pollution, water supply, landslides and flooding, loss of habitats for fisheries and wildlife, and degradation of soil for agricultural purposes. Tourism suffers when food, water, and hazards appear to endanger the security of visitors.

The suggested activities of the R2R management office in setting up the governance bodies include the following:

- Contacting all identified members of the governance bodies and getting their willingness to be part of the body. This will probably need getting biometrics and other information for filling up forms and submitting required documents for the issuance of appointment or confirmation.
- Ensuring there is gender inclusion in the members of the governance bodies and that institutions that look after women, youth, the poor and other vulnerable groups are engaged.
- Preparing briefing and orientation materials, including agenda for the governance bodies.
- Acting as Secretariat of the governance bodies and documenting minutes of their periodic meetings.
- Organising site visits and conducting orientation, advocacy meeting with the members of the body.



- Facilitating the issuance of appointments, if needed, and clarifying expectations, and funding the cost of participation, especially those needing to travel and lodging and food expenses. Remuneration for attendance, if any, must also be clarified especially for members of the communities and ethnic groups.
- Informing selected members to participate in key R2R implementation activities, especially during advocacy and social marketing campaigns, site validation, annual work and financial planning, M&E and other activities.

SG 6.4 – Review R2R strategies and prepare annual work and financial plans

The approved R2R plans may have a varying mix of strategies as the basis for the management team to hold annual workshops for preparing annual work and financial plans. This exercise builds on completed outputs from SG 6.3 and SG 4 above. Work and financial planning is always tied to the logical framework and the reality of estimating how much funds will be needed to operationalise the activities that are expected to contribute to the outputs or deliverables and contribute towards the desired outcomes. The R2R management team will monitor progress of implementation and analyse results with the hope of gaining deeper understanding of how R2R strategies work. Innovative and strategic activities are key to work and financial planning. Effective activities are those that are expected to achieve objectives and targets.

Gender inclusive strategies are reviewed, and progress of gender inclusion monitored. This will include an assessment of participation of women not only in governing bodies and committees, but also how projects implemented have shifted women's roles and have enhanced positive roles women play in resource use and management.

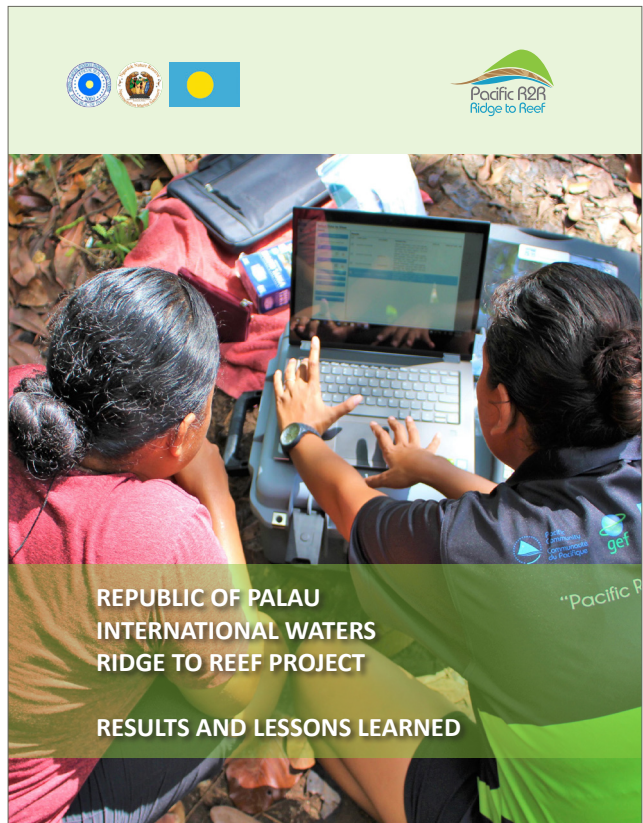
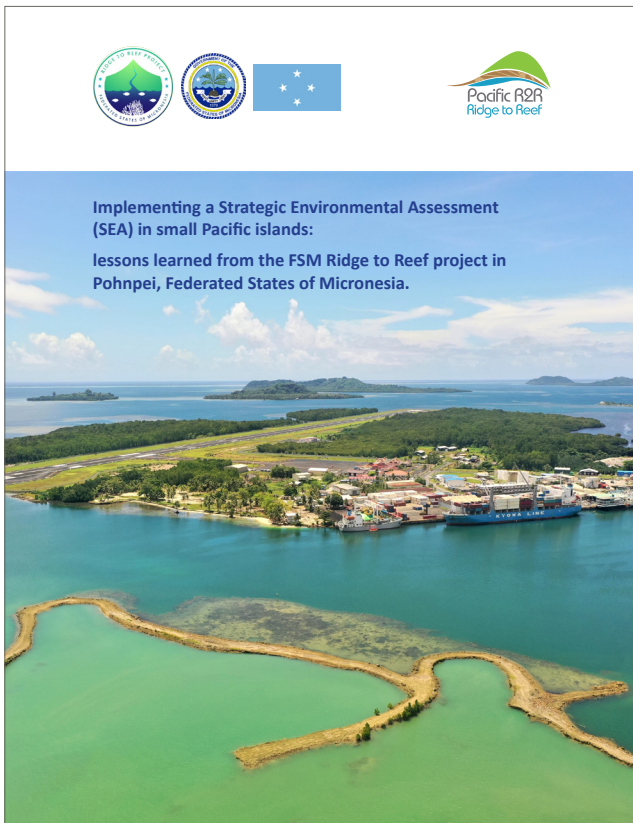
Approved work and financial plans are reviewed and endorsed or approved by the governance bodies. They also provide the boundaries of what the staff can commit or inform R2R partners, clients, and interest groups. Advocacy and social marketing campaigns can use the work plans to identify target audience and the messages they must communicate to them including what are expected of these audiences.

A menu of strategies for implementation may emerge from the R2R plan based on the SG 5 as shown in Figure 10. These or some selected strategies may be broken down into activities as part of the work and financial plans. The work and financial plan becomes the R2R management operational plan for a given period. The work plan provides more info with respect to who will do what, when, how, with whom, for whom, and how much. The work plan may be reviewed and revised after a quarter or at least for six months to help coordinate and update each member of the R2R management team.

SG 6.5 – Conduct periodic M&E of key performance indicators considering the approved annual work and financial plan and logical framework, analyse progress, and generate lessons learned to improve implementation

R2R implementation requires innovation as many of the variables that could impact the protection and management of ecosystems and their inherent capacities to supply EGS change over the period of implementation. The COVID-19 pandemic is a notorious example. It has affected most implementation activities. A disastrous typhoon, strong storm, prolonged dry season, occurrence of pests and diseases, and upland migration are some events that require adaptability and flexibility in R2R management. A well organised and thought-out MEL system offers an option to inform, gain insight and forewarn the management team, communities, governance bodies, and other stakeholders.

Workshop outputs from SG 5 and the final version of the R2R plan (framework or project-related) are initial materials for the R2R management team to develop and implement an MEL. Agreement on various measures of key performance indicators is important. Carry out R2R MEL activities by looking at all angles of implementation and assessing how the outputs are contributing towards the desired outcomes and in relation to the envisioned future of the R2R planning area.



Most donors and countries' national planning agencies have guidance and instructions on how to prepare and implement an M&E plan that is based on updated database. In most cases, however, the "learning" aspect from the M&E analysis and reports is missing or barely discussed. Insights from the analysis of M&E reports open windows for identifying R2R activities that are more effective, stable, and sustainable with respect to protecting and managing the fragile ecosystems and their capacities to withstand climate and human-induced impacts, increasing demand, worsening poverty, and declining productivity. Thus, it is suggested that the R2R management team, with selected participants from the members of the governance bodies, community stakeholders and civil society, gather once a year to "reflect and distil lessons" from implementation of R2R activities. These annual reflection sessions can be the platform for discussions on progress of and impediments to gender work and provide a sharing platform for good practices on gender mainstreaming. Recommendations may be further discussed by the governance bodies to filter what lessons and recommendations are of importance to policy and programme review and development, enhancing the sub-guides, and improving the planning and implementation activities in target sites.

The M&E reports present objective data set that can trigger discussions and ask the hard questions: *What worked? What did not work? Why? What can we do better for the next year's implementation? What linkages do we need to better understand? Does the R2R team have what it takes to carry out integrated R2R activities? What do we need to beef up implementation and do catch up?* A third-party facilitator might be engaged to help the R2R management team take a broader perspective on options for improvement.

It should be noted that five (5) SG 6 guidelines are designed for R2R implementation. It is important for the R2R manager or coordinator together with his/her team to understand and reach common understanding of the R2R direction, the tasks that are required to carry out the strategies, the internal and external relationships that would have to be managed and kept at bay to optimise team's energy and interactions, and current and impending conflicts or issues that they must jointly confront and address. There is also a need to fully understand and mobilise the administrative and finance staff and become supportive of implementation without compromising standard practices of procurement, sound financial management and accountability.


SUMMARY OF THE GUIDE FOR R2R MAINSTREAMING IN PICs

The Guide for the three strategies of R2R mainstreaming in PICs offers an attempt to prepare and broaden the perspectives of lead agencies, project team, advisors and consultants, researchers, academicians, NGOs, and media groups as they contemplate to plan and implement R2R approach at the site, sub-national and national levels. The Guide, with the six sub-guides, reveals the complexities and the simplicity of translating the concept of R2R strategy into reality.

To make the R2R mainstreaming strategies effective, we need at national level, buy-in of policy and decision makers who are the “gate keepers” of power and resources that support sub-national and site level actions (coordination, complementation, collaboration, investments, regulation, development). At a smaller scale, the same is true at the sub-national level, especially with provincial or state governments that are less dependent on the national government. At these levels, key donors can influence in this process especially if they have short, medium, and long-term interest in aiding the PICs.


But to make a difference and see the synergistic positive impacts of R2R approach, site level integrated planning and inter-sector implementation must happen. Thus, the sub-guides were prepared to ensure that assisting organisations, projects, advisors, project staff, donors, national line agencies and local governments “LISTEN” to the local stakeholders, those who have and are (some with no choice) “staking” their livelihoods, lives, enterprises, safety and security, and even their future, on the inherent capacity of the ecosystems in supplying their EGS needs” BEFORE formulating R2R prescriptions for the sound protection, restoration, use and management of the ecosystems in a land-sea planning area. In this regard, the integration of gender mainstreaming into all aspects of R2R work is crucial to ensure that any intervention at the community level is through interactions, participatory consultations and discussions with men, women, youths, and vulnerable populations who not only use resources but depend on these resources for their future livelihoods.


It is highly recommended that the Guide with the six sub-guides be fully tried at all levels of planning and implementing the R2R mainstreaming strategies. If there are resources, and donors are willing to be part of the process, the testing and refining processes should be carried out with the concerned national, sub-national and public and private stakeholders before widespread use. A series of “training-exercises followed by field work and coaching” approach type of support may be provided to develop local capacities, observe how the processes are carried out, and how the outputs of SGs could serve as major inputs in preparing the advocacy and social marketing strategies, R2R plans and R2R implementation.



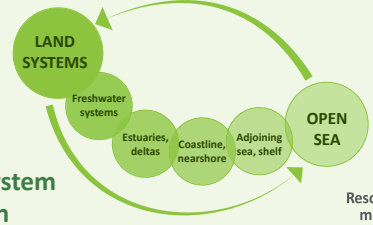
Pacific R2R
Ridge to Reef

Ridge to Reef Approach: Testing Spatial Prioritization in Tropical Island settings





Land to Sea Link

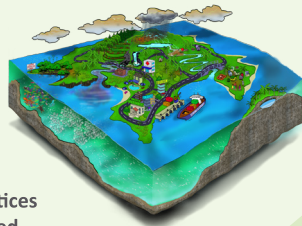


Drivers of Ecosystem Degradation


- Climate
- Population dynamics
- Industry
- Institutional and Socio-economic conditions

Ridge to Reef Management

Collaborative knowledge construction and decision making for sustainable development



Governance

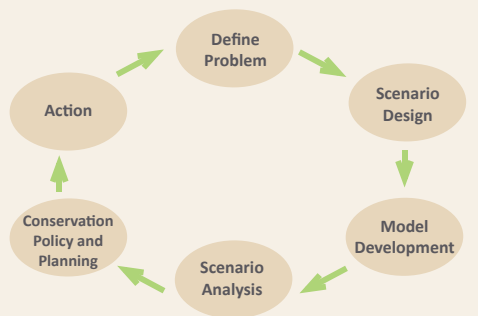


GOVERNANCE SYSTEM

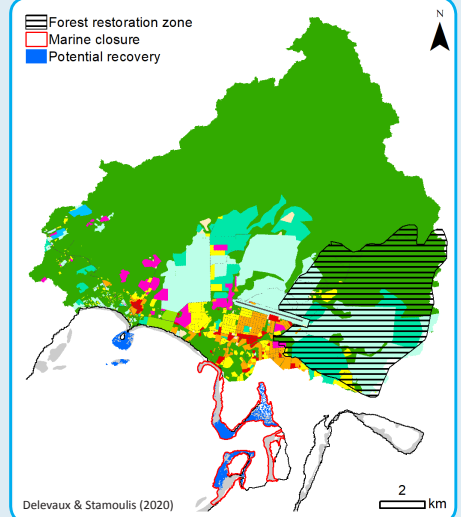
Practices used by targeted stakeholders

Support Collaborative Decision Making and Management

- Prioritize conservation areas at the national-scale that can benefit both terrestrial & marine environments
- Support local decision making by testing policy actions & estimating potential outcomes prior to implementation
- Provide information to foster dialogue between decision-makers
- Supports an iterative decision making process



Benefits of R2R approach Vanuatu Spatial Prioritization Trial








Restore Native Forest +1,330 ha + Restore/protect marine habitat Up to 75 ha = Decreased 210 ton/yr of sediment Restore/protect fish biomass Up to 8.3 ton

www.pacific-r2r.org

[@PacificR2R](https://twitter.com/PacificR2R)

www.facebook.com/PacificR2R

Pacific R2R: Testing Spatial Prioritization in Tropical Island settings poster was selected by the IPBES Secretariat to showcase at the IPBES Stakeholder Days at the margins of the 8th Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, Thursday, 03 June, 2021 - Wednesday, 09 June, 2021.

The IPBES is an intergovernmental organization with a 132 country membership, established to improve the interface between science and policy on issues of biodiversity and ecosystem services. It is intended to serve a similar role to the Intergovernmental Panel on Climate Change-IPCC.

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ANNEX A. RECOMMENDED R2R MAINSTREAMING STRATEGIES IN PICS

This annex is mostly derived from the R2R Consultancy Team's Technical Report No. 1. It starts with what R2R approach is all about based on the IWR2R Project Document and other related references, the proposed logic statement for the R2R mainstreaming strategies, and more detailed discussions of the mainstreaming strategies.

The GEF Regional IWR2R Project Document mentions that R2R is:

- *Integrating approaches to freshwater and coastal area management that emphasize the inter-connections 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 PICS*
- *Fosters effective cross-sectoral coordination in the planning and management of land, water, and coastal uses.*

A more practical and management-oriented form of defining R2R mainstreaming is stated below:

- *Bringing sectors and stakeholders together to jointly plan, design, and govern their seascape-landscapes, and institutional resources or various land-sea forms in PICS to:*
 - ✓ *conserve and sustainably use biodiversity and ecosystems,*
 - ✓ *sustain ecosystems goods and services for ecological stability, livelihoods, and enterprises,*
 - ✓ *improve agricultural production and fisheries stocks within carrying capacity of terrestrial and coastal/ marine ecosystems, and*
 - ✓ *strengthen capacities for climate change mitigation and adaptation.*
 - ✓ *reduce municipal waste and related pollution levels thereby avoiding contamination in water*

The above definition adds a "defined area" for planning and implementing various measures and states five major objectives of R2R. Thus, its common features include the following:

- ✓ *A multi- and cross-sectoral approach identify areas for coordination, collaboration, and complementation.*
- ✓ *Requires inclusive participation of key institutions, local governments, private sector, and communities especially those that are responsible for the protection, restoration, regulation, development, and management of the land sea forms; those that are using the EGS as inputs for business operations and the on and off-site consumers and users of EGSs;*
- ✓ *Established set up for steering and providing direction, coordination, collaboration and complementation, and governance, building on existing conventional and traditional structures and arrangements in government and local communities.*
- ✓ *Agreement combined with shared understanding of common objectives and strategies for managing the land-sea forms and for their institutional resources; and*
- ✓ *Established mechanism for adaptive management based on shared learning that emerge from analysis of implementation progress ((Adapted and formulated based on Winterbottom et al., 2013; Barnes, 2000; DENR/ENRMP, 2013; Senge, 2006; USAID Protect Wildlife Project 2021)*

Proposed Logic Statement for the Recommended R2R Mainstreaming Strategies

To further unify the three recommended mainstreaming strategies, a proposed logic statement is put forward with “If, Then and Thereby”⁴³ to highlight the possible set of activities and trajectory of “results chains” that depicts the assumed causal linkage between an intervention and desired impacts through a series of expected intermediate results. Links may show sequencing, complementation, and connectedness of strategies and activities to achieve intermediate outputs that contribute towards desired outcomes at the national, sub-national, and local levels.

The logic statement may be derived from the processes and outputs of discussions and workshops to generate doable “results chains” as the set of strategies and activities that are supportive of the theory of change (ToC) for a given initiative or project. The logic statement summarises the ToC, which is a

“decision support tool that illustrates the causal links and sequences of events that are needed for an activity or intervention to lead to a desired outcome or impact, and articulates the assumptions underlying each step. ToCs map out the missing-middle between what an activity or intervention does and how, taken together, these lead to the achievement of desired outcomes and impacts”⁴⁴.

The ToC can also guide the formulation of a logical framework. Each of the strategies could be programme or project components with key sub-components having defined deliverables, outputs, and outcomes. Each strategy may generate results chains that could be aggregated towards common desired outputs (or results) and outcomes.

The sub-guides can help develop the results chains (connectedness, complementary and sequential activities to achieve intermediate outputs that will contribute toward the desired outcomes). Lessons learned may be starting points for planning and implementing the R2R mainstreaming strategies especially those from existing sites of IW-R2R and STAR projects. For example, results chains may be formulated or re-visited for each existing demonstration site. Exercises could begin by identifying activities in developing multi-scale communication, advocacy and social marketing campaigns that are based on integrated analysis with defined targeted audiences, messages and expected outputs at the community, local, sub-national and national levels. Outputs may include reaching shared understanding, commitments, buy-in from stakeholders. The chain of activities may be used to improve and align existing collaboration, complementation, and coordination protocols and/or policies and programmes; and provide or strengthen support to those with buy-in at the sub-national and site levels. Existing references on theory of change or engaging a specialist to facilitate the process may be helpful to assist a team in preparing result chains for advocacy and social marketing communication campaigns⁴⁵. The activities could easily yield a logical framework for planning and implementing the advocacy and social marketing with strategic communication campaigns.

The same process above may be adopted for re-visiting the R2R site plans of existing R2R sites. These could continue as the learning areas for the replication sites and for developing sub-national R2R strategic frameworks. Site and sub-national R2R plans with clearly articulated and demonstrated result chains with each activity and intermediate outputs contributing to the desired outcomes can be used to craft the national governments’ R2R frameworks for the consideration of donors, partners and concerned sectors.

Below is the suggested logic statement of a ToC for the R2R mainstreaming. The statement could aid in framing strategies that are intended to achieve the PICs R2R envisioned future. Using the logic statement as the summary of the “R2R mainstreaming theory of change” could jumpstart the design of new projects and in identifying result chains of activities that may lead towards intermediate and desired outcomes. Follow on activities in generating the results chains become more directed and easily linked with the logical framework of project design, yearly planning, implementation, and carrying out M&E system.

43 Foundations of Success. 2009.

44 Center for Theory of Change. 2013.

45 Understanding and applying the Theory of Change, generating results chains, and formulating logic statements or logic models require orientation cum training of project staff and key stakeholders. It is suggested that the orientation cum training use the approved copies of plans or designs in preparing results chains for each component or strategy and for the whole project. It carried out at the beginning of project implementation and annually until the end of a project of initiative. The ToC process will generate lessons, outputs, and insights for adaptive management, substantiate M&E analysis and reports, and provide perspective during the evaluation process.

IF national, sub-national and local stakeholders understand and value mainstreaming R2R (IWRM/ICM) approaches in their major land-sea forms to ensure the sustainable supply of ecosystems goods and services to meet their community needs and improve resiliency as a result of:

- *Scaling up advocacy and social marketing communication campaigns with a unified message of optimising R2R benefit flows in PICs land-sea areas,*
- *Replicating participatory integrated R2R planning with envisioned R2R benefit flows at the local, sub-national and national levels, and*
- *Replicating R2R implementation of approved integrated R2R plans to realise R2R benefit flows at the local, sub-national and national levels*

THEN, the GEF Pacific R2R programme through its Regional IW Ridge to Reef (IWR2R) project has substantially supported the PICs' efforts to mainstream R2R approaches for integrating protection, restoration, and development of land, water, forests, coastal resources, and biodiversity;

THEREBY, significantly contributing towards the PICs R2R's vision of "maintained and enhanced PICs ecosystem goods and services" to help reduce poverty, sustain livelihoods, and build up climate resilience.

Scaling up R2R mainstreaming of Advocacy and Social Marketing Communication Campaigns (ASMCC) with the Unifying Message of Optimising Benefit Flows from Ecosystems of PICs' Land-Sea Areas

This scheme for scaling up R2R mainstreaming involves the development of multi-level effective advocacy and social marketing communication campaigns that target various audiences in a defined R2R unit – a specific land-sea form, a sub-national area, or a country. These campaigns will disseminate and broadcast evidence-based right messages, defined objectives, and desired behavioural responses to each target audience. Target audiences consist of policy and decision makers, donors, political and appointed leaders at various levels of government, media groups, civil society, and communities. Campaigns will be gender-responsive and socially inclusive. These communication campaigns are based on spatial, scientific, policy and governance, and socio-economic analysis and lay down defined inclusive benefit flows of the transformation processes from natural capital to environmental, economic, and financial assets.

Existing R2R initiatives may be part of the R2R mainstreaming initiative. These could implement mainstreaming-related activities even during the extension phase of the Regional IWR2R as an activity under the "Testing R2R Mainstreaming" project. Lessons learned and state of the art knowledge of R2R have shown that scaling up advocacy and social marketing communication campaigns⁴⁶ that target specific audiences can be effective and efficient when developed and implemented not only before and during the R2R planning, but during the implementation phase.

Two types of improved versions of information, education, and communication (IEC) campaigns may be planned for R2R mainstreaming – advocacy and social marketing communication campaigns. These campaigns could be formulated as improved versions of the current IEC approaches, which, in many ways were largely designed to increase "awareness" and disseminate information to a wider audience. The social marketing approach has been used for "upstream" and "downstream" audiences with proper messaging and strategies. In this Guide, however, advocacy communication campaigns will target the "upstream" target audiences while the social marketing communication campaigns will be used for the "downstream" target audiences. Short-, medium-, and long-term activities are embedded in R2R campaign plans. As explained by Kotler and Lee (2009) and further elaboration of Andreasen (2006), social marketing has emerged as a tool to influence behaviours of target audiences even of those that could impact the state of the environment and natural resources. Social marketing is defined by Kotler and Lee (2009) as,

"a process that applies marketing principles and techniques to create, communicate, and deliver value in order to influence target audience behaviors that benefit society (public health, safety, the environment, and communities) as well as target audience⁴⁷."

⁴⁶ Kotler and Lee. 2009.

⁴⁷ Ibid.

In social marketing, “sellers” intend to get to the minds, hearts, and spirits of the “buyers” for them to “buy” the desired behaviours and enjoy the benefits of those desired actions, attitudes, and behaviours as “products”. The target upstream and downstream audiences are the policy and decision makers, and local stakeholders, respectively, with the intent to facilitate the adoption of clearly stated desired behaviours as listed below⁴⁸:

- *Accepting a new behaviour* (such as approving/endorsing an R2R-related policy, an R2R plan, and/or deciding to increase budget; segregating solid wastes by households).
- *Rejecting a potentially undesirable behaviour* (such as not being supportive of inter- or cross-sectoral approach to R2R coordination, or not including traditional land and sea owners as members of the project steering committee; or communities not complying with prescribed land uses in protection zones).
- *Modifying a current behaviour* (such as being open to re-aligning budget resources for R2R capacity building support; or adopting fishing practices that will discriminate against catching juveniles).
- *Abandoning an old, undesirable behaviour* (such as continuing and maintaining an open dumpsite or illegal harvesting of forest products or households not constructing septic tanks).

The R2R campaigns can transmit messages using various ways of communication to advocate, or “sell” the benefits of acting on the desired behaviours of target audiences or groups such as the policy and decision makers at the national and sub-national levels and local stakeholders. R2R campaigns need to be gender sensitive and socially inclusive to ensure benefits to target audiences.

Policy and decision makers hold the key to influencing R2R policy development, plan approvals and in directing, aligning, and programming resources, while local stakeholders in R2R sites are the “de-facto” on-site resource managers who depend on ecosystems and EGS for their livelihoods, enterprises, businesses, and long-term resiliency against natural and human-induced hazards.

The policy and decision makers are the dominant voices in at least two of the three major catalysts – governance, finance, and markets – in integrated landscape management⁴⁹. The local stakeholders – EGS users and consumers, households who depend on EGS for their livelihoods and backyard enterprises and urban communities – are simply the main markets and consumers of the EGS from R2R sites. The key role of advocacy and social marketing campaigns is providing an initial platform that will result in better appreciation, decisions and actions (during small meetings, consultations, FGDs, key informant interviews, media coverage, etc.) especially in coming to a “shared understanding” of the benefits and the flow of R2R approach resulting from policy development, programming, site planning and implementation at various levels”. This is critical for the mainstreaming of R2R approach, whether for replicating certain strategies in different or similar setting or for scaling up purposes. Advocacy and social marketing campaigns that are anchored on inter-sector and strategic analysis and shown spatially, have the potential to change mind sets, re-direct behaviours, leverage more resources, resolve conflicts, and provide a common vision for key stakeholders.

Advocacy and social marketing, to be effective, must deliver a common message to various target audiences in an R2R planning unit – site, sub-national and national. The R2R mainstreaming message – **optimising the benefits flows of ecosystems in land-sea forms for communities, enterprises, and society** – may be crafted and framed differently depending on the target audience; and identified desired behaviours, actions, and decisions with the use of appropriate communication strategies. In addition, advocacy and social marketing need to address the different needs and priorities of the different sectors of communities. Healthier ecosystems would supply/provide higher and more predictable supply of EGS compared to degraded ones. The spatial analysis can show the areas in the land-sea planning units – site, sub-national national – where threats and institutional barriers exist, who are the public and private stakeholders that have the responsibility, authority, and accountability for the protection, restoration, and management. In an age of digital awareness, traditional forms of communication schemes may no longer appeal especially to the younger generations such as the millennials. Social media could play a significant part in getting across the message to different audiences.

48 Modified with different examples from Kotler and Lee. 2009.

49 Scherr et al. 2015.

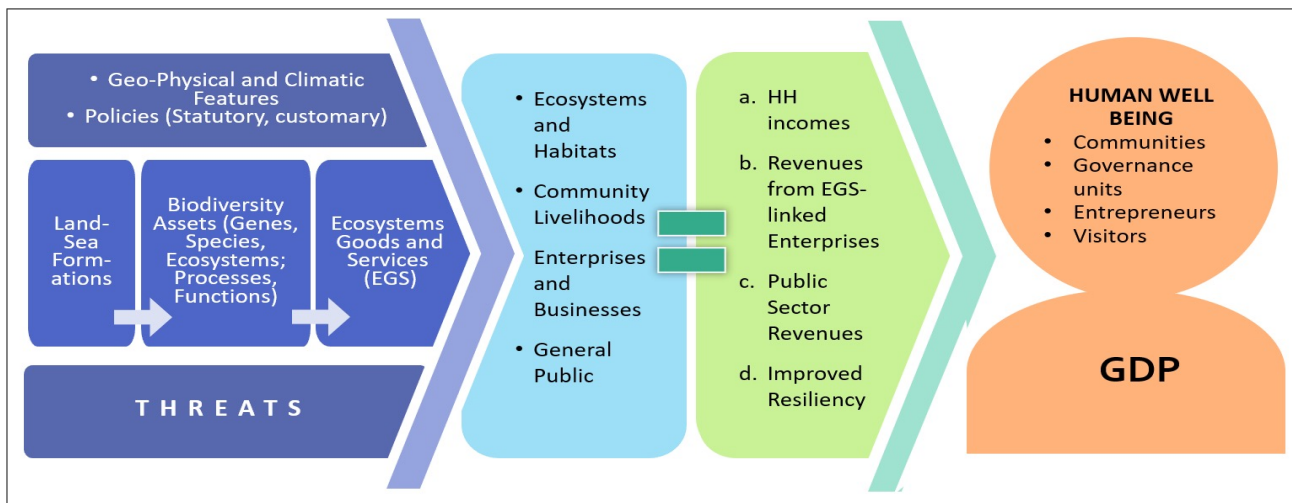


Figure A. Optimising the Benefits of Ecosystems in R2R Mainstreaming – From Natural Capital to Overall Resiliency, Economic and Financial Assets

Figure A provides a simplified benefit flow of ecosystems under an R2R approach. The mapping and spatial analysis can help identify the target audiences, craft the right messages, and pinpoint appropriate communication strategies at the site, sub-national and national levels. Outputs from Sub-Guide No 1 combined with those of Sub-Guide No 3 are inputs to developing communication strategies for advocacy and social marketing campaigns. The outputs from Sub-Guide Nos 1, 2, and 3 are inputs to developing the R2R plans at the site, sub-national and national level, not just for aggregation but for prioritisation, strategy formulation, and policy and programme development.

Linking the communication, advocacy, and social marketing campaigns with the spatial-, science-, policy and governance- and socio-economic analysis may be started immediately even during the last year of the IW-R2R and STAR implementation period. Gender considerations should be a key component that links communication, advocacy and social marketing campaigns with policy and governance and the socio-economic analysis work to be undertaken. To highlight the conditions of the major ecosystems in land-sea forms, it is suggested that the spatial-driven analysis and assessments should first focus on the “givens” – the key ecosystems that supply the major EGS for community livelihoods, operations of EGS-linked enterprises such as the water utilities and the resort owners, the threats to the ecosystems and EGS, and possible partners in the R2R sites such as the on-site and off-site stakeholders, local governments, private sector, resource institutions and civil society organisations.

Buy-in from the local stakeholders and sub-national and national leaders based on the scaled-up advocacy and social marketing communication campaigns may be used to prioritise R2R sites – identified and prioritised by policies, programmes and initial “buy-in” from all stakeholders –and stakeholders in this case are specifically defined and approached through a gender lens making sure women and other vulnerable members of communities are involved and where the R2R-related sectors and stakeholders “collaborate, coordinate, complement and work together to jointly plan, design and manage their land-sea forms and institutional resources in order to:

- conserve biodiversity and ecosystems,
- sustain ecosystems goods and services for ecological stability, livelihoods, and enterprises,
- improve agricultural production, and
- strengthen capacities for climate change mitigation and adaptation⁵⁰.

The spatial overlays and various derived maps can help “frame” and show what messages and actions are required from policy and decision makers (national, sub-national and local, including communities). They can also help show the dangers of not taking the actions with respect to the supply of EGS from key ecosystems in R2R sites (national, sub-national, local), and the benefits if there is coordinated, concerted and collaborative actions with policy and governance support from leadership and stakeholders.

50 Adapted and formulated based on Winterbottom et al. 2013, Barnes 2000, DENR/ENRMP. 2013Reed et al. 2016Senge 2006

In summary, R2R mainstreaming through the scaled-up strategy of advocacy and social marketing communication campaigns has the main objectives of:

- a. **Reaching a shared understanding** of the R2R approach and its application under various bio-geophysical and climatic features, policies and governance processes, conditions of the ecosystems that provide/supply EGS with multiple benefits, and threats to the environment and natural assets in R2R areas – sites, sub-national and national;
- b. **Expressing buy-in of national and sub-national policy makers** to improve and provide policy and programmatic support to R2R mainstreaming, especially in approving priority R2R sites, allocating more staff, increasing budget support, affirming leadership that could leverage resources from non-government partners and donors, and resolving policy and institutional issues and mandate overlaps; and
- c. **Commitments of local stakeholders'** (EGS users and consumers, communities, private sector, civil society or conscience industry, resource institutions) to actively participate and engage in the joint protection, restoration, governance, regulation and enforcement, and development of R2R sites for their own wellbeing. The need to include gender inclusive stakeholder consultations is crucial to ensure that commitments are from all members of the community and especially ensures the participation of men, women, youth, and vulnerable communities.

Replicative Type of Participatory Integrated R2R Planning

The replicative type of mainstreaming the R2R planning covers the processes of gathering relevant data for analysing and understanding the existing or current situation in a planning unit; generating a common stakeholders' vision, mission, goals, and objectives (VMG/Os); determining and prioritising strategies to achieve or contribute towards the VMG/Os; and identifying and assessing the environmental and socio-economic impacts of the strategies for mitigation and adaptation purposes.

R2R plans, regardless of their scale – site, sub-national, national – champion the “economy as only part of the environment”. The OECD (2016) says, the “*links between the economy and the environment are manifold: the environment provides resources to the economy, and acts as a sink for emissions and waste. Natural resources are essential inputs for production in many sectors, while production and consumption also lead to pollution and other pressures on the environment. Poor environmental quality in turn affects economic growth and wellbeing by lowering the quantity and quality of resources or due to health impacts, etc*”⁵¹. For example, forests, agricultural lands, and coastal and marine areas in land-sea forms are sources of sustainable livelihoods, prosperity, and resilience if these ecosystems are well protected, restored, adequately regulated and managed.

The R2R plan is the “mother or framework R2R plan” of all sector or donor-funded project plans that are in support of the R2R vision, mission and objectives in a planning unit or scale. An R2R-related sector plan may just cover forestry and related activities and a coastal plan is a subset of the R2R mother plan. A donor-funded project plan may cover several components of the R2R framework plan, but all activities should contribute to the desired outcomes. That is one of the reasons for developing an integrated inter-sector R2R plan to ensure that all investments, whether for protection and restoration and/or development, regulation and management have the net impact of sustained and enhanced inherent capacities of the ecosystems to provide EGS to the populace. The R2R framework plans are like Russian dolls – when one opens the outer plan, a smaller plan appears, then another comes out until the smaller dolls are seen, which could be sector or sub-sector R2R-related project or activity plans.

R2R planning is a significant function of the mandated or elected resource managers of a defined R2R area – site, sub-national and national. R2R plan is an inter-sector and multi-sector plan to ensure that the environment and natural resources in the planning area are protected, managed, restored, regulated, utilised, or developed, and managed sustainably to meet the needs of the current and future generations. The resource managers of an R2R area may be a political unit (e.g., sub-national area), designated lead technical office of national line agencies (e.g., site), or lead national technical line agency with the participation of other sectors. Because of the inter-sector nature of R2R plans, governance bodies are created to facilitate effective coordination, collaboration, and complementation of investments, and review and approval of various land and water uses that are expected to impact the inherent capacities of the environment and natural resources to meet current and future needs. To be inclusive, governance bodies are created with representations from

51 <https://www.oecd.org/economy/greeneco/global-forum-on-environment-2016.htm>

the major stakeholders in an R2R area – relevant technical agencies such as ENR, water, infrastructure, R&D, social welfare, agriculture, fisheries, local governments; local elected officials, businesses, service facilities, land, and sea owners, civil society, and media. To ensure effective coordination and the participation of all sectors of communities, gender and social inclusion should be ensured. This will entail the inclusion of women and vulnerable groups in all phases of project development and implementation.

In developing a plan, boundaries of a target R2R area must be identified and delineated. This will help pinpoint the key stakeholders in the area. Boundaries of a specific site such as a watershed, island, atoll should be established and translated into maps. The same reason applies for the boundaries of a sub-national unit like a state, province or cluster of adjoining municipalities that cover a major land-sea form. Before planning starts, key decision makers need to clearly identify and define the boundaries of an R2R planning area – the biophysical boundaries of a watershed, island, atoll, or other land-sea forms; the land-sea forms that will be included in developing a politically- and legally-defined boundaries of a sub-national area such as state, province, or municipality; and the land-sea forms in each state, province, or island of a PIC.

The R2R plan includes mitigation and adaptation measures against climate- and human-induced disasters such as landslides, erosion, flooding, pollution, pests and diseases, storm surges and tsunamis⁵². Plans identify and analyse policies as to their applicability in certain land-sea forms, the capacity of mandated institutions to carry out their roles and responsibilities, and the existing mechanisms for collaboration, complementation and coordination to minimise negative externalities of certain sector policies, programmes and actions. Plans determine gaps between written and implemented policies for future improvements. Moreover, R2R approaches need to address the challenge of balancing economic growth and development with the need to ensure stability of environment and sustainability of natural resources as key strategy to achieve resiliency and posterity goals.

Ideally, governance bodies review and approve R2R plans. Governance bodies review and approve choices, decisions, and actions with respect to the short- medium- and long-term public and private investments and major land and resource uses in an R2R area. They serve as the oversight body for the overall condition of the environment and natural resources and the “gate keepers” of the “coming in and out” of both protective, extractive, and restorative type of investments in the R2R area. Governance bodies at all levels and with respect to short-medium- and long-term public and private investments need to take gender issues, needs and priorities into account. The R2R plan serves as the key document providing the road maps to an R2R area. Thus, R2R plans at the national and sub-national levels are strategic by nature, while plans at the site levels are more operational but also strategic at the local level.

Replication may start with ongoing R2R demonstration/pilot sites of IWR2R and the STAR projects if there are needs for improving comprehensiveness, refinement, refocusing, injecting more innovations, and transitioning these sites into “learning R2R site laboratories”. It is recommended that the current IWR2R and STAR sites perform spatial-driven analysis with overlays that will highlight the integration of major sectors – forestry, environment, sanitation, coastal and marine, demography, economic sectors, infrastructure, and social services – in the R2R sites. With the overlays, the spatial-driven analyses could reveal gaps and opportunities in proposing innovative activities to help achieve the R2R goals and objectives and strategies of the existing R2R plans. The composite maps (or derived maps) can show the benefit flows of EGS from the natural capital to the ecosystems, livelihoods, enterprises, and public. These maps can highlight areas for collaboration, complementation, coordination, resolution of conflicts, hot spots for more effective enforcement, and areas needing better regulatory policies, restoration, protection, and development.

In replicating R2R planning at the sub-national level, it is recommended that the mainstreaming starts with the priority areas that have been selected by national government, with or without donor funding commitment. However, it is suggested that the sub-national government takes the main responsibility in developing the R2R plan with the financial and technical assistance of the national government technical departments. This means that the spatial-driven integrated analysis of R2R sites within the jurisdiction of sub-national governments will have to facilitate “buy-in” among concerned local government units, key sectors in the dominant land-sea forms, field units of national line agencies, private sector, civil society, and representative groups of communities that are using or consuming various EGS such as farmers, fisher folks, tourism facilities and providers of services.

In both the site and sub-national levels, clear expressions of the R2R “buy-in” from various stakeholders are needed before R2R planning starts. Buy-in from stakeholders should be ensured through a participatory

52 <https://panorama.solutions/fr/building-block/ridge-reef-approach>

and a stakeholder engagement process that ensures the inclusion of women and vulnerable members of communities. This way, there are indications of “demand-driven” type of replicative planning for R2R mainstreaming rather than going to supply-driven (“donor” or “national government”), with programmes serving as “push” towards replicative type of R2R mainstreaming. Donors or programmes can re-configure their strategies in response to common needs, interests and strategies that will contribute towards the reduction of threats to ecosystems and EGS. Demand-driven R2R mainstreaming becomes shared actions to achieve self-interested common goals. They might even reach the ideal “tipping point” where R2R planning is mainstreamed from self-interested initiatives of local and sub-national stakeholders. This is possible when there is increasing shared understanding among stakeholders of the value of the

R2R approach to mitigate the declining capacities of ecosystems to supply EGS and the impending threats of climate change and unregulated land and resource uses in various land-sea forms at the local and sub-national levels. Advocacy, social marketing and the R2R learning sites as “field laboratories and demonstrations” of what R2R benefits could be. Both traditional and digital media will play a major role.



Figure B. Steps and processes in developing site, sub-national and national R2R plans

In summary, the replicative type of mainstreaming strategy for R2R planning follows a generic pattern as shown in Figure B. The steps and processes in the generic R2R planning could serve as starting framework for the site, sub-national, and national R2R plans. The model can be adapted to fit R2R planning for a specific land-sea form, a sub-national area, and even the whole country. Contents of the four major steps and processes, however, will vary. Sites will have more specific data and information because they are smaller in smaller area. Sub-national R2R plan will look like an aggregation and comparison of different R2R sites in a larger area having strategies depending on the major land-sea forms, VMOs, and key performance indicators. Governance, financing, and ecosystems and EGS users including threats will also vary from site to site in a sub-national area especially if there are different types of land-sea forms such as watersheds or catchments, atoll or islands, wetlands, etc. R2R plan at the national level is like a sub-national plan but with priorities and support to key sites and sub-national areas. Policies, programmes, and support systems are significant components of the sub-national and national R2R plans. Standardised gender mainstreaming strategies must be used in the different sites, however, gender action plans will differ depending on site priorities and projects implemented.

Replicating R2R implementation of approved integrated R2R plans to realise R2R benefit flows

With legitimisation⁵³ and approvals of governance bodies of R2R plans, implementation could begin. Existing IWR2R or STAR demonstration sites may transition towards replication type of R2R implementation mainstreaming. Based on the R2R planning model, they may hold workshops to identify gaps and opportunities in their approved plans that are worth improving to ascertain effectiveness and efficiency of R2R measures or interventions. Some activities based on revised log frames or newly crafted results chains may be worth revisiting in other R2R sites under the mainstreaming strategy. This approach may be considered if the IWR2R project will be extended or will have a follow-on phase.

It is, however, recommended that in replicating R2R implementation, only approved or enhanced R2R plans with the buy-in of sub-national and technical agencies, communities, EGS users and other concerned stakeholders will be implemented. These sites can serve as “learning field laboratories” for future replication and scaling up of R2R planning and implementation.

Figure C shows the implementation of the approved “strategies” in the R2R plans. At the site level, the approved strategies provide inputs in developing annual work and financial plans and multi-year targets based on log frame and results chains. Under adaptive governance and management scheme, updating and analysis of the database and M&E systems will continue to yield learnings from implementation. These are useful to discuss during annual assessment and planning activities. It is imperative to have flexibility in planning specific activities for implementation under the approved R2R plans if they contribute to the overall R2R VMGOs.

At the sub-national level, implementation focuses on support for replication, sharing of information and best practices, reviewing, and advocating sub-national policies, and crafting relevant R2R programmes that will institutionalise the approach. Sub-national governments can spearhead advocacy, including discussions with key EGS users to ensure sustainability of R2R ENRs as the sources of EGS. They can trigger actions towards the gradual process in setting up PES systems and facilitating promising R2R innovations for replication and sharing to other sub-national areas. Capacity building, aggregation and updating R2R database and conduct of M&E activities are also part of implementation activities. Implementation activities at sub-national level, sharing of information and best practices, reviewing of sub-national policies and efforts to institutionalise the approach to be gender sensitive and socially inclusive.

At the national level, implementation will focus on high level coordination, facilitating complementation and collaboration, resolving conflicts between and among key sectors, policy review and development, scenario setting and programming, and leveraging and/or sourcing internal and external funds to sustain and institutionalise R2R in priority sub-national areas and key R2R sites, especially those that support or sustain growth centres and urban areas.

⁵³ Simply means R2R plans show documentation of local and community stakeholders’ endorsements or resolutions, board endorsement and participation among EGS users, signed protocol or agreements with potential partners, or similar documents showing their commitments to participate and engage in the R2R undertaking.

Implementation must also include capacity building support for key sub-national leaders and technical units, aggregation of sub-national database, including the incorporation of natural capital accounting in estimating gross domestic product (GDP), sponsoring national level knowledge sharing, R&D initiatives, and incorporating lessons and best practices to the academic and training institutions to develop the next set of R2R professionals.

The R2R implementation phases include the period of project mobilisation, which involves, among others: setting up the governance bodies, clarifying governance processes and partnership/implementation arrangements including protocols, capacity building of staff and key counterparts, developing consensus on the overall direction of governance-oriented and integrated R2R implementation, integration of gender mainstreaming strategies into the different implementation phases and internalising the basic principles of project management. Donor-funded projects under the R2R mainstreaming strategy should be set up as catalysts with the intention to leave a legacy of highly capable national, sub-national and local stakeholders and support of EGS users and consumers, communities, and civil society to sustain R2R implementation activities as their continuing resource management practices.

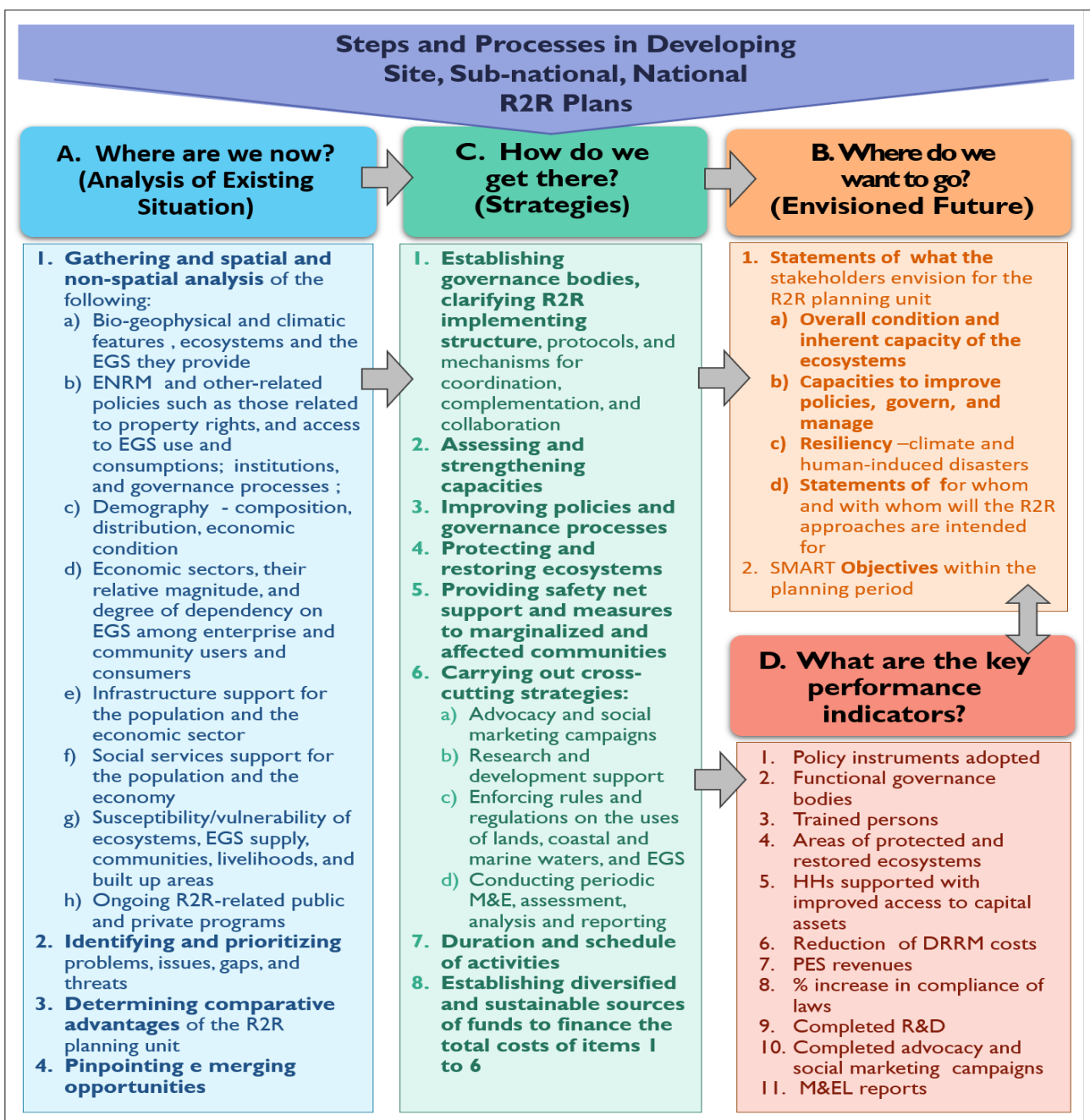


Figure C. Implementing the R2R Mainstreaming at Selected Level

ANNEX B. DEFINITIONS OF MAJOR TERMS AND PHRASES USED IN THE GUIDE

Advocacy – is defined as a planned communication effort to persuade decision makers at policy, planning and management levels to adopt necessary legislations and carry out programmes of action and allocate resources for a cause (Cohen et.al. 2010).

Conservation – refers to the judicious utilisation of natural resources that assures regeneration and replenishment for continuous benefit;

Consumers – direct buyers or users of ecosystems goods and services such as visitors, persons, firms, establishments, households, farmers, visitors, etc. who buy finished or processed products or services from those who use ecosystems goods and services as inputs in the production, processing and marketing of their products and services.

Ecosystem Goods and Services (EGS) – refers to the multitude of material and non-material provisions and benefits from healthy ecosystems necessary for human sustenance and survival, including supporting processes, provisioning, and regulating of the environment and preserving cultural resources. This is inclusive of ecosystem services that are provided by forests and forestry plantations, which protect and improve the environment. The benefits that people derive from ecosystems, which include but are not limited to, the supply of food and water (provisioning services); water quality and flood risk prevention (regulating services); opportunities for recreation, tourism, and education (cultural services); and essential underlying functions such as soil formation and nutrient cycling (supporting services). The ecosystems services specifically refer to the conditions and processes through which natural ecosystems, and the species that make them up, sustain and fulfil human life. They maintain biodiversity and the production of ecosystem goods, such as seafood, forage, timber, biomass fuels, natural fibre, and many pharmaceuticals, industrial products, and their precursors. In addition to the production of goods, ecosystem services are the actual life-support functions, such as cleansing, recycling, and renewal, and they confer many intangible aesthetic and cultural benefits as well (Daily 1997).

Ecosystem – a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit (<https://www.cbd.int/ecosystem/description.shtml>)

Environmental Impact Assessment (EIA) – the process that involves evaluating and predicting likely environment and natural resource (ENR) and socio-economic impacts of a project or an intervention during implementation such as construction, commissioning, operation, and abandonment. It also includes designing appropriate preventive, mitigating and enhancement measures addressing these consequences to protect the environment and the community's welfare.

Governance – defined as all modes and systems for governing all those activities of social, political, and administrative actors that can be seen as purposeful efforts to authoritatively allocate resources and guide, steer, control, coordinate or manage the pursuance of public goods (Kooiman 1993, Kjaer 2004 and Rhodes 1996), whether they are developed and enforced by markets, hierarchies, or networks (Kjaer 2004).

Land cover – the vegetation (natural or planted) or man-made constructions (buildings, etc.) which occur on the earth surface. Water, ice, bare rock, sand, and similar surfaces also count as land cover.

Land use – series of operations on land, carried out by humans, with the intention to obtain products and/or benefits through using land resources.

Landscape – a delineated “heterogeneous area composed of a cluster of interacting ecosystems that are repeated in various sizes, shapes and spatial relationships”.

Landscape restoration – pertains to the restoration of landscapes that include forestlands, protected areas, ancestral domains, settlements and built-up areas, inland waters, and mangrove and foreshore areas. Restoration in forest landscapes involves ongoing processes of regaining ecological functionality and enhancing human well-being across deforested or degraded forest landscapes (IUCN).

Logic statement – derived from the processes and outputs of discussions and workshops to generate doable “results chains” as the set of strategies and activities that are supportive of the theory of change (ToC) for a given initiative or project (Center for Theory of Change 2013).

Natural and unique attractions – a geographic or geological feature that attracts tourism activity, which combines three elements, namely education, recreation, and adventure.

Ordinance – a piece of legislation such as a law or resolution that is enacted by a sub-national, local government unit.

Payment for Ecosystems Services (PES) – a voluntary transaction with or without a legislation support that involves a series of payments in which a well-defined ecosystem good or service, or land use is likely to provide the good or service if bought (or agreed upon) by a buyer from a provider/seller if and only if the provider ensures the continuous provision of that good or service or certain actions (Wunder 2005, UNDP undated, ENIPAS 2018). PES includes both the Users and Polluters Pay Principle as a result of voluntary payments that arise from WTP and/or WTA.

Protected Area – refers to identified portions of land and/or water set aside because of their unique physical and biological significance, managed to enhance biological diversity, and protected against destructive human exploitation. It is an identified portion of land and water set aside by reason of their unique physical and biological significance, managed to enhance biological diversity, and protected against destructive human exploitation

Protected Landscapes and or Seascapes – refers to areas of national significance which are characterised by the harmonious interaction of humans and the natural environment while providing opportunities for the public enjoyment through recreation, tourism, and other economic activities. These areas may include all types of legally defined lands or waters such as forestlands, protected areas, unclassified public forests, private lands, and other public domains including freshwater, coastal waters, lakes, and others.

R2R mainstreaming – “process of embedding R2R approach and processes into national, sub-national and community policies, strategies, programmes and practices to ensure that the ecosystems and EGS in various land-sea formations in PICs are maintained and enhanced to help reduce poverty, sustain livelihoods and build up climate resilience” (Huntley and Redford 2014, and IW-R2R Project Document 2016).

Replication – refers to the process of applying or copying specific features or modifying features of an emerging effective R2R approach or measure in the same or another setting (modified definition from the IW R2R Project Document 2016).

Resource Valuation (RV) – “an attempt to put monetary values to environmental goods and services or natural resources” (Hausarbeit 2013). The basic aim of valuation is to determine the preferences of enterprises and people by gauging how much they are willing to pay (WTP) for given benefits or certain environmental attributes e.g., keep a forest ecosystem intact. Valuation also tries to measure how much worse off people would consider themselves to be as a result of changes in the state of the environment such as forest degradation. Economic valuation never refers to a stock, but rather to changes in a stock as the users and consumers continue to use or consume ecosystems goods and services. Economists thus stress that valuation should focus on changes rather than the levels of biodiversity or ecosystem.

Ridge to Reef (R2R) – Integrating approaches to freshwater and coastal area management that emphasise the inter-connections 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 PICs. R2R fosters effective cross-sectoral coordination in the planning and management of land, water, and coastal uses. It is also the process of bringing sectors and stakeholders together to jointly plan, design, govern and manage their seascape-landscapes, and institutional resources or various land-sea forms to: conserve and sustainably use biodiversity and ecosystems, sustain ecosystems goods and services for ecological stability, livelihoods and enterprises, improve agricultural production and fisheries stocks within carrying capacity of terrestrial and coastal/ marine ecosystems, strengthen capacities for climate change mitigation and adaptation, and reduce municipal waste and related pollution levels thereby avoiding contamination in water.

Scaling up – means increasing the impacts of effective and efficient R2R approaches or measures in broader geographic and of institutional scales (modified definition from the IW R2R Project Document 2016; Korten 1984).

Sellers or Providers of EGS – are the “resource managers” – individuals or entities – that are eligible to receive payments for their efforts to protect, restore, develop, and manage the landscapes or portions thereof. Payments may be used for forest conservation, enforcement, livelihood support, coordination and management of the landscapes or seascapes, and other eligible conservation costs.

Social Marketing – refers to a process that applies marketing principles and techniques to create, communicate, and deliver value to influence target-audience behaviours that benefit society... as well as the target audience” (Kotler and Lee 2008).

Theory of change (ToC) – description of why a particular way of working will be effective, showing how change happens in the short, medium, and long term to achieve the intended impact. It can be represented in a visual diagram, as a narrative, or both.

Users of ecosystems goods and services (EGS Users) – enterprises, non-government organisations, commercial farms, resorts, and businesses who are using EGS in producing marketable good or services that are for sale to various consumers such as water, visitors to resorts and recreation sites, food, fuelwood, and charcoal.

Wastewater – refers to water that has constituents of human and/or animal metabolic wastes or that has the residuals from cooking, cleaning and/or bathing.

Water utility provider – a public or private entity engaged in supplying water for industrial, commercial, and domestic purposes.

Watershed – an area of land that contains a common set of streams and rivers that all drain into a single larger body of water, such as a larger river, a lake, or an ocean. It is also defined as a land area drained by a stream or fixed body of water and its tributaries having a common outlet for surface runoff.

Willingness to accept compensation (WTA) – the economic value of something to an individual which could be the minimum amount the person or entity would accept as compensation for the loss or reduction of an environmental service (adapted from Brown et.al 2007) resulting from the use or consumption of the EGS.

Zoning – the process of dividing land in a defined area into certain uses or classifications (protection and conservation, production forestlands, agricultural, residential, commercial, industrial, institutional, tourism, etc.).

