

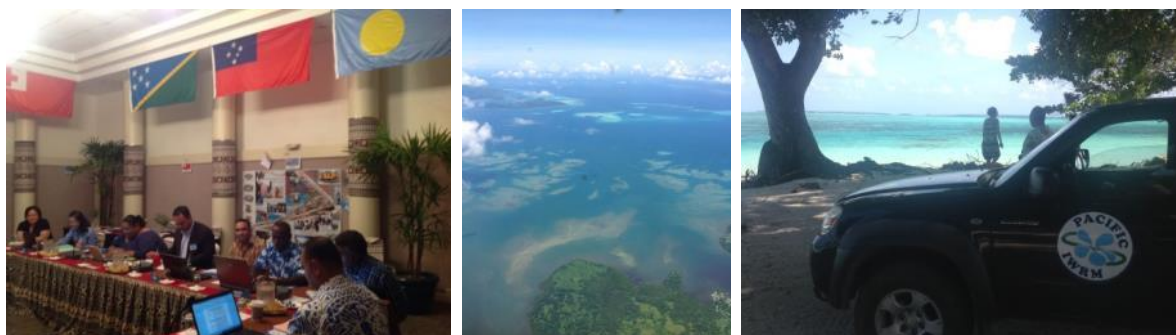


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**TERMINAL EVALUATION OF THE PROJECT:
IMPLEMENTING SUSTAINABLE WATER RESOURCES AND
WASTEWATER MANAGEMENT IN PACIFIC ISLAND COUNTRIES**

GFL – 2328-2731-4A51

Final Report



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UNEP Evaluation Office

17 May 2014



Disclaimer: The views and opinions expressed in this report are solely those of the authors, and do not reflect official positions of the United Nations Environment Programme or the United Nations Development Programme.

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List of Abbreviations and Acronyms

APEX	GWP defined inter-sectoral and inter-ministerial group
CEO	Chief Executive Officer
CROP	Council of Regional Organisations of the Pacific (formally the South Pacific Coordinating Committee (SPOCC))
EA	Executing Agency (SOPAC)
EU	European Union
FSM	Federated States of Micronesia
GDP	Gross Domestic Product
GEF	Global Environment Facility
GWP	Global Water Partnership
IA	GEF Implementing Agency (UNEP & UNDP)
IUCN	International Union for Conservation of Nature
IW	GEF International Waters Focal Area
IW:LEARN	GEF International Waters Learning Exchange and Resource Network
IWC	GEF International Waters Conference
IWC	International Water Centre
IWCAM	GEF Integrating Watershed and Coastal Areas Management in Caribbean SIDS
IWRM	Integrated Water Resources Management
M	Million
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
MoU	Memorandum of Understanding
MTR	Mid-Term Review
NGO	Non-Governmental Organisation
NSC	National Steering Committee
O&M	Operation and Maintenance
PAS	GEF Pacific Alliance for Sustainability
PCU	Project Co-ordination Unit
PDF	Project Development Fund
PICs	Pacific Island Countries
PIR	Annual Project Implementation Report
PMU	Project Management Unit
PNG	Papua New Guinea
R2R	Ridge to Reef (a GEF funded initiative)
RMI	The Republic of the Marshall Islands
ROtI	Review of Outcomes to Impacts
RSC	Regional Steering Committee
RTAG	Regional Technical Advisory Group
SAP	Strategic Action Programme
SIDS	Small-Island Developing States
SMART	Specific, Measurable, Attainable, Relevant & Time-bound
SOPAC	The Pacific Islands Applied Geoscience Commission – in January 2011 SOPAC (became ‘The Applied Geoscience and Technology Division of the Secretariat of the Pacific Community (SPC)’)
TE	Terminal Evaluation
ToC	Theory of Change
ToR	Terms of Reference

Project Identification Table

Table i: Pacific IWRM Project Identification Table

GEF project ID:	2586	IMIS number:	GFL – 2328-2731-4A51
Focal Area(s):	International Waters	GEF OP #: N/A	9
GEF Strategic Priority/Objective:	IW SP3: Balancing Overuse and Conflicting Uses of Water Resources in Transboundary Surface and Groundwater Basins.	GEF approval date:	3 September 2008
Approval date:	UNEP : 2 July 2008 UNDP : n/a	First Disbursement:	UNEP : 30 March 2009 UNDP : 3 July 2009
Actual start date:	UNEP : 5 May 2009 UNDP : February 2009	Planned duration:	60 months
Intended completion date:	1 February 2014	Actual or Expected completion date:	30 June 2014
Project Type:	FSP	GEF Allocation:	UNEP : \$ 2,297,797 UNDP : \$ 6,727,891
PDF GEF cost:	US\$722,950	PDF co-financing:	US\$812,000
Expected FSP Co-financing:	US\$82,798,524	Total Cost:	US\$90,982,170
Mid-term review/eval. (planned date):	September/October 2011	Terminal Evaluation (actual date):	
Mid-term review/eval. (actual date):	February 2012	No. of revisions:	
Date of last Steering Committee meeting:	PSC5: 11 th – 15 rd November 2013.	Date of last Revision*:	
Disbursement as of 31 December 2013 (UNEP):	UNEP: US\$2,177,992	Disbursement as of 31 December 2013 (UNDP):	US\$ 6,185,575
Total co-financing realized as of Dec 2013	US\$74,540,000	Leveraged financing:	

Executive Summary

Introduction

1. The Pacific Integrated Water Resource Management (IWRM) Project, established in 2009, was a remarkable initiative that achieved a level of commitment to and practice of IWRM principles across the Pacific that would not have been reached in its absence.
2. Through a range of diverse activities tailored to the needs of thirteen participating Pacific Island Countries (PICs), the project aimed to improve water resource and wastewater management and increase water use efficiency (WUE) in PICs in order to balance overuse and conflicting uses of scarce freshwater resources.
3. Project activities covered four main areas of endeavour including: country-driven and designed demonstration activities (Component 1); development of IWRM and WUE regional indicator frameworks (Component 2); advancement of national policy, legislative, and institutional water reform (Component 3); and development, dispersal and sharing of regional capacity and expertise to sustain the project's benefits long into the future (Component 4).
4. Successful collaboration at the PIC and Pacific regional level built on the cooperation established between the principle implementation agencies, including the United Nations Environment Programme (UNEP) and the United Nations Development Programme (UNDP) utilizing Global Environment Facility (GEF) funds of approximately US\$9 million, and the European Union utilizing EU Pacific IWRM Planning Programme funds of approximately US\$2.8 million.
5. These contributions were more than matched by the PICs themselves and their multilateral and bilateral sponsors (approx. US\$75 million up to 31 December 2013).
6. The Pacific Islands Applied Geoscience Commission (SOPAC) provided the project coordination unit (PCU) which underpinned programme coordination, management and administration.
7. This report is the Terminal Evaluation (TE) of the Pacific IWRM Project. The objective of the TE was to determine whether the project achieved its outputs, objectives, outcomes and to the extent possible its impacts and sustainability.
8. The evaluation took place between November 2013 and March 2014 by Professor Richard Price and Dr Jan Gregor. The evaluation was timed to commence approximately six months before project completion so that the findings could assist inform the planning process associated with a new GEF Ridge to Reef (R2R) initiative. The evaluation involved an orientation meeting in Nadi, Fiji with Project's Regional Steering Committee (RCS), two missions to visit six of the PICs, and Skype and phone interviews with representatives of the remaining PICs and the Implementation Agencies. Altogether, the TE evaluators heard from 83 individuals closely associated with the Project.
9. Central to the evaluation, the evaluators reconstructed a comprehensive Theory of Change (ToC), which was necessary and valuable in appreciating the complexity of the Pacific IWRM project and in reviewing the pathway of Project success from outcomes to impacts.

Evaluation findings

10. Overall, and using the UNEP evaluation rating scale, the TE evaluators rated the project as somewhere between Satisfactory and Highly Satisfactory. The project has been truly catalytic in the extent to which regional and national replication, scaling-up, capacity building and co-financing has been achieved. The one area of concern in the Mid Term Report (MTR), relates to the Policy component, which made advancements in the final two years that place some

countries ahead of many developing nations in terms of having national IWRM policies and implementation plans. None of these are perfect, but they represent an enormous achievement in a policy arena that can sometimes take decades to see progress.

11. The successes in the policy area have been more than matched by the tremendous gains made at the local and regional levels, both in terms of the technologies and practices that have been developed and the local ownership and guidance given to nurturing, demonstrating, advocating and in many cases replicating these technologies and practices. These aspects (policy, demonstrations, capacity building and ownership) led the TE evaluators to rate the project higher than Satisfactory. If the level of local ownership shown by the many communities across the PICs had been reflected universally across all and not just some of the national governments, then a rating of Highly Satisfactory would have been given. The pathway for further progress has nonetheless been built.
12. The following table summarises the ratings across the evaluation criteria that led to the TE evaluators' overall rating with further justification provided in the following sections.

Table ii. Summary evaluation ratings table

Criterion	Rating
A. Strategic relevance	Highly Satisfactory
B. Achievement of outputs	Satisfactory
C. Effectiveness: Attainment of project objectives and results	Satisfactory
1. Achievement of direct outcomes	Satisfactory
2. Likelihood of impact	Highly Likely
3. Achievement of project goal and planned objectives	Satisfactory–Highly Satisfactory
D. Sustainability and replication	Likely
1. Financial	Likely
2. Socio-political	Likely
3. Institutional framework	Likely
4. Environmental	Likely
Catalytic role and replication	Highly Satisfactory
E. Efficiency	Highly Satisfactory
F. Factors affecting project performance	
1. Preparation and readiness	Highly Satisfactory
2. Project implementation and management	Highly Satisfactory
3. Stakeholders participation and public awareness	Highly Satisfactory
4. Country ownership and driven-ness	Satisfactory
5. Financial planning and management	Satisfactory
6. UNEP & UNDP supervision and backstopping	Satisfactory
7. Monitoring and evaluation	Satisfactory
a. M&E Design	Satisfactory
b. Budgeting and funding for M&E activities	Satisfactory
c. M&E plan Implementation	Moderately Satisfactory
Overall project rating	Satisfactory–Highly Satisfactory

Evaluation discussion

13. **A. Strategic relevance:** The Project's objectives and implementation strategies were tightly aligned with national, regional, international and donor needs and priorities. As a precursor to each country demonstration project, a diagnostic report and hotspot analysis was conducted, the findings of which shaped the demonstration project. At the regional level, the Pacific IWRM Project flows directly from the priorities identified in the Pacific Regional Action Plan for Sustainable Water Management. It addresses the issues at the very heart of reasons for the projected non-attainment of MDGs, and is consistent with the UNEP Medium-term

Strategy cross-cutting themes, the UNDP strategic objectives, themes and focus areas, and the Bali Strategic Plan for Technology Support and Capacity Building.

14. **B. Achievement of outputs:** Achievement against demonstration project outputs (Component 1) and policy/governance outputs (Component 3) were satisfactory. The country demonstration projects focused on removing barriers to implementation at the community level and were targeted towards national and regional learning and application. This component, through the Intermediate State of articulating lessons learned is connected to the other three components of the project. The demonstration projects also produced direct local environmental results and benefits, and health co-benefits, from changes in practice. While the outputs and outcomes of the policy component were ambitious, the aim of having all countries adopt national policies based on IWRM principles was eventually and largely achieved.
15. There is room to progress in lifting monitoring and evaluation (M&E) targets and indicators up above project-level (Component 2). From a generally unfamiliar position of project M&E processes and results-based targets and indicators, the countries have come a long way during the project. Countries are routinely using participative M&E for revision, communication and reporting at project and policy/plan levels. Although making progress at the country level, the region seems not yet ready for a common regional indicator framework and programme.
16. Achievement against capacity building and sustainability (Component 4) was highly satisfactory, and a hallmark success of the project. The project has delivered on outputs of upgrading community, national and regional skills, having in place active twinning programmes, and knowledge management networking and information sharing, and in doing so has set the countries and region up for sustaining results.
17. **C. Effectiveness (attainment of project objectives and results):** The evaluation of the achievement of direct (lower order) outcomes as defined in the reconstructed ToC rated all four components as 'B' or better, reflecting the project's intended outcomes were delivered and were designed to feed into a continuing process. The TE Evaluators consider there is a high likelihood of progressing from outcomes to the impacts identified in the ToC. The work of the IWRM has been catalytic, and the legacy of the project appears strong.
18. **D. Sustainability and replication:** The probability of continued long-term project-derived results and impacts after the conclusion of the Project is rated likely across all four dimensions, thanks to already securing necessary finances to implement plans, awareness and ownership particularly at the community/catchment level, establishment of strong national and local governance structures, and environmental factors that could impact on sustainable benefits have been considered and mitigated to the extent possible.
19. **Catalytic role and replication:** The project has been highly catalytic in changing community practice, triggering replication and scale-up, triggering integrated government policy and securing donor funding. "Doing is seeing the need", a now famous quote from the PCU, can be applied to the catalytic role of the demonstration projects in influencing community uptake of technology and policy change, and can also be applied to the catalytic role the PCU and RSC had on capability development of the country project managers. The most high-profile example of both replication and scale-up is that of the Tuvalu design of composting toilets and its approach to introducing this to communities, with replication advice being considered and applied in other countries, and scale-up happening within Tuvalu.
20. **E. Efficiency:** The level of expenditure together with the level of achievement across all four components represents efficient use of funds, even more so taking into account the substantial budget cut experienced at the commencement of the project. Substantial effort went into the design process, building on the previous country diagnostic and hotspot studies,

which put the project in good stead for implementation. There was room to improve the timeliness of synthesis and reporting, particularly as the project drew to its end.

21. **F. Factors affecting project performance:** The evaluation found that preparedness and readiness, project implementation and management and stakeholder participation and public awareness acted positively to enable successful Project performance. Country ownership and driven-ness was satisfactory. In some cases the state/local ownership and driven-ness was high, but was lacking at the national level. National ownership and driven-ness was highest when there was a champion at the senior government level, an existing water reform agenda to which the IWRM project could contribute to implementation, and/or the country was small. M&E design and implementation was satisfactory although overall synthesis of M&E results at the regional level and at the conclusion of the project was disappointing. UNEP/UNDP supervision and backstopping was essentially strategic in nature. The funding rules were a significant issue for many countries early in the project.

Key lessons learned

22. **Engagement:** This was a hallmark success of the project at regional, national and community levels, and an essential element of any integration project. Effective engagement is a powerful enabler of building awareness, understanding and capacity, fostering ownership, seeking agreement, rallying and coordinating action, demonstrating success, providing accountability and eliciting financial support. Recommendations 1–3 contribute to sustaining this lesson.
23. **Adding value:** The value of the country diagnostic reports and hotspot analyses in designing the demonstration projects has been highlighted in this report. Building off the endorsed Pacific Regional Action Plan for Sustainable Water Management gave credibility and direction to the regional project. We heard of the two-way benefits of connecting the demonstration projects with national strategy and plans - the projects providing a means to deliver on national plans, and national plans ensuring high-level support for the project. The articulated successes of the demonstration projects therefore become the catalysts for engaging with and influencing important stakeholders, in particular water APEX bodies, donors and community. Recommendations 2, 4 and 5 contribute to sustaining this lesson.
24. **Country capacity:** The Project has developed a group of competent IWRM advisors and well-connected project managers, and has improved the competencies of government agency operations staff and community. This is a recognised achievement of the project. With this increased competency comes increased career opportunity. Retention of experienced and competent people remains a significant issue for the Pacific. Recommendations 1, 3 and 6 contribute to sustaining this lesson.
25. **Synthesis:** One of the empowering and enduring features of an initiative such as the IWRM Project is its potential to draw lessons together from a synthesis across different components and locations. In some cases, the diversity of activity can help define which principles and activities are easily transferable while in other cases it can help nuance what can be replicated under what circumstances. Regional activities can easily be well intentioned but not adequately seen through due to the busy-ness taken up by the individual components, particularly at the final stages of initiatives that coincide with the planning activities for subsequent projects. It is therefore important to plan and budget for synthesis activity in such a way that it becomes an essential and accountable part of large complex initiatives. Recommendation 1 and 2 contribute to sustaining this lesson.
26. **Financial management:** Complex programs with multiple funding partners, implementing agencies and country partnerships will often in and of themselves demand complex administrative arrangements. These arrangements however need to balance efficiency with

effectiveness and take into account the nature of adaptive management that make projects like the IWRM Project successful. Several lessons from the IWRM project need to be built into the financial arrangements of future projects, including consideration of centrally coordinated country funding, realistic audit thresholds and scheduling appropriate to project scale, and greater flexibility in carry-over of funds and per-centage expenditure rules. Tracking of co-financing needs to be formalised and more readily available.

Key recommendations

27. Recommendation 1: Regional Steering Committee:

Evaluators' comment: Future complex regional projects, including those supported by UNEP, UNDP and other Pacific donors, should replicate the IWRM Project RSC model, including its multi-objective emphasis on exchanging lessons as well as information, building implementation strategies, building strong team-based camaraderie and networks and basically getting work progressed. This requires a dedicated and not insubstantial regional budget but ultimately represents value-for-money.

Recommendations to UNEP and UNDP:

- 1a. The UNEP and UNDP should prepare an Experience Note based to the extent possible on the IWRM Project model. The Note should include advice on adequate budgeting and support to ensure steering committees are effective.

UNEP specific:

- 1b. To help facilitate replication and as an input into the Note (Recommendation 1a), the UNEP should ask the PCU to provide a normative and prescriptive description of the IWRM Project RSC process that can be provided as RSC formation and management guidelines to future project planners. This could be provided as an Annex to the IWRM Project Final report.

28. Recommendation 2: Reporting results:

Evaluators' comment: The PCU should complete the activity of compiling the regional indicator results, and make available the findings to regional tracking programmes and donors. Future projects should include a specific activity to compile, synthesize and report regional findings and this should be built into Prodocs and adequately resourced.

Recommendation to UNEP and UNDP:

- 2a. To help ensure adequate resources are provided to underpin regional synthesis of multi-country activities and that these activities are tied to accountable milestones, the UNEP and UNDP should prepare an Experience note for adoption by future projects of similar nature to the IWRM project.

UNEP specific:

- 2b. The UNEP should ensure that the PCU completes the activity of compiling the regional indicator results and makes available the findings to regional tracking programmes and donors.
- 2c. The UNEP should encourage the PCU and countries to write up some aspects of their work for other audiences as appropriate in science and development sector publications. UNESCO could be a possible publisher and funder of a specific edition of the Pacific IWRM story about engagement, environmental and health science, practice and policy.

29. Recommendation 3: Planned and implemented exit strategy:

Evaluators' comment: Future projects, starting with the upcoming R2R project, should include

in their project planning an activity to develop an exit strategy that commences well before the completion of the project. This will help transition national and local steering committees to an active life without the formal support of the project or project manager.

Recommendation to UNEP and UNDP:

- 3a. The UNEP and UNDP should prepare an Experience Note for adoption by future projects of similar nature to the IWRM project to ensure that future project designs include a stage at which exit strategies are prepared for all relevant components of an initiative. Exit strategies should be incorporated into the Prodoc for short-term projects or built in as a planned step/milestone in Prodocs for longer-term projects.

30. Recommendation 4: Grounded targets and appropriate indicators:

Evaluators' comment: Future IWRM-related projects should include greater elements of practical training in water quality monitoring design and data interpretation; microbiological water quality tests, and include pathogens/indicator microorganism targets in results-based indicator frameworks for all human-use waters (drinking-water and recreational waters). These are strong drivers for attracting co-financing into IWRM projects.

Where UNEP and UNDP support regionally based activities with some element of health and sanitation involved, they should consider the inclusion of the following elements into the project design:

- Provide practical training in water quality monitoring programme design and data interpretation;
- Strengthen the country-level capability and capacity to carry out basic microbiological water quality tests, importantly at the location of projects since there are strict time limits between sample collection and analysis;
- Make available expert support to countries to assist with or review programme design and data interpretation;
- Include pathogens/indicator microorganism targets in results-based indicator frameworks for all human-use waters (drinking-water and recreational waters); and
- Include more critical thought by people with appropriate local and technical knowledge when setting targets for effectiveness of pilot or trial technologies.

Recommendation to UNDP:

- 4a. The PCU of the new R2R initiative should write to National health bodies of participating PICs to discuss the opportunity for co-investing in relevant indicators monitoring and analysis (i.e. pathogens) at a relatively low cost by building on related monitoring activities to be established as part of R2R.

31. Recommendation 5: Functional roles for coordinating bodies:

Evaluators' comment: Coordinating bodies established for IWRM within and across Pacific Island Countries should build into their Terms of Reference a functional role relating to the broader oversight and networking of water activity, be it policy at APEX body levels or planning and implementation at local community levels. Bodies that limit their focus to single project oversight are ultimately not consistent with principles of IWRM, will struggle to gain timely cooperation from critical players and will likely not exist beyond the life of the project, hence reducing opportunities to build on diverse experience and lessons learned.

UNEP specific:

- 5a. UNEP should prepare an Experience Note providing guidance on what makes a good APEX body, based on the experience of the IWRM project.

UNDP specific:

- 5b. The UNDP should, through SOPAC, recommend to PICs participating in R2R to review the role of their APEX bodies to ensure their Terms of Reference include a functional role relating to the broader oversight and networking of water activity and not just R2R project oversight.

32. **Recommendation 6: Retention of capacity:**

Evaluators' comment: Support a regional-level activity to assess the needs and identify options for a programme to foster retention of the IWRM and project management competencies needed in the Pacific. Where upcoming R2R projects that will be led by a different agency than the IWRM project do not transition the IWRM project manager to R2R, a strong connection should be maintained with this person and the IWRM project lead agency.

UNDP specific:

- 6a. The UNDP should ask the R2R PCU to provide a regional level assessment of the needs and options for a programme to foster retention of the IWRM and project management competencies needed in the Pacific, particularly in the context of implementing the R2R initiative.

I. Introduction

33. The Global Environment Facility (GEF) Pacific IWRM project: Implementing Sustainable Water Resources and Wastewater Management in Pacific Island Countries was a wide-reaching initiative that aimed to improve water resource and wastewater management and water use efficiency in Pacific Island Countries (PICs) in order to balance overuse and conflicting uses of scarce freshwater resources. The Pacific IWRM Project was established in 2009 to support a combination of policy and legislative reform and implementation of applicable and effective Integrated Water Resource Management (IWRM) and Water Use Efficiency (WUE) plans supplemented by capacity building. The project was largely completed by December 2013, with some elements carrying through to June 2014.
34. Coordinated by the Pacific Islands Applied Geoscience Commission (SOPAC), the Pacific IWRM project was funded under the GEF with United Nations Environment Programme (UNEP) and United Nations Development Programme (UNDP) support (approx. US\$9 million), with significant co-financing sourced from the European Union (approx.. US\$2.8 million) and from among the fourteen participating PICs and their multilateral and bilateral sponsors (approx. US\$75 million). Some additional co-financing was sourced from Non-Government Organisations (NGOs). The total budget was therefore somewhere in the order of US\$87 million, making it one of the largest single water management initiatives in the region.
35. Activities supported under the project were divided across four main components, including country-driven and designed demonstration activities (Component 1), IWRM and WUE Regional Indicator Framework development (Component 2), policy, legislative, and institutional reform for IWRM and WUE (Component 3) and regional capacity building and sustainability for IWRM and WUE (Component 4). This model is based on a similar GEF initiative covering Caribbean PICs. The four components varied in their resources and implementation across the participating islands. Approximately 90 per cent of the total budget was directed towards Component 1.
36. In November 2013 the Evaluation Office (EO) of the UNEP contracted the authors to conduct a Terminal Evaluation (TE) of the project. The evaluation team comprised a team leader (Professor Richard Price) with expertise in natural resources management program management, policy and institutional analysis, and a technical specialist (Dr Jan Gregor) with expertise in integrated water resources management and sanitation, particularly throughout the Pacific. The terms of reference for the TE and biographical summaries of the evaluation team are provided in Annex 1 and Annex 16 respectively.
37. The evaluation was conducted between November 2013 and March 2014. The objectives, approach taken and limitations are outlined in the next section. This Terminal Evaluation Report is the primary output of the evaluation.

II. The Evaluation

A. Objectives

38. In line with UNEP's Evaluation Policy, the UNEP Evaluation Manual, and the Guidelines for GEF Agencies in Conducting Terminal Evaluations, this TE comprises an assessment of the Pacific IWRM Project's performance in terms of relevance, effectiveness and efficiency. It also assesses project outcomes and impacts, including their sustainability, to the extent possible given the time lags that can often be involved for these to emerge from projects dealing with national and community development, the environment, and individual and public sanitation and hygiene.

39. The evaluation had two primary purposes:
 - i. To provide evidence of results to meet accountability requirements.
 - ii. To promote feedback, knowledge sharing and continuous improvement through results and lessons learned among UNEP, UNDP, SOPAC and the relevant agencies of the project participating countries.
40. The evaluation focused on the following key questions, based on the project's intended outcomes:
 - (a) To what extent has the project contributed towards improved water resources management, water use efficiency and waste water management in the Pacific Island Countries? Are the necessary steps in place to reach the higher level results?
 - (b) Were the demonstration projects useful in terms of generating practical lessons that have the capacity to be mainstreamed into existing local, national and regional approaches? To what extent have lessons been mainstreamed? Did the project put in place the necessary drivers to mainstream lessons?
 - (c) Was the developed IWRM and WUE indicator framework practical and useful in improving IWRM and WUE planning and programming? If applied, does it have the potential to enable better monitoring of environmental impacts and further improved IWRM and WUE planning? To what extent was the framework adopted at the national and regional levels? Were the measures taken by the project adequate in order to support and promote the adoption of the framework, especially since the Mid Term Review (MTR) recommended that this should be strengthened?
 - (d) Was the project successful in contributing towards institutional change in the participating countries in terms of enacting National IWRM plans and WUE strategies? Did the project set in place the necessary structures that promote the endorsement of IWRM policies within the Pacific region? To what extent can the change be attributed to the IWRM-Pacific project?
 - (e) Is there evidence that institutional and community capacity in IWRM at national and regional levels in the Pacific has improved during the project period? To what extent can the change be attributed to the IWRM-Pacific project?
41. Notwithstanding the drivers and objectives of the TE outlined above, the timing of the TE coincided with planning for a new GEF Ridge to Reef (R2R) initiative commencing across the Pacific in 2014. The R2R initiative is intended to build on the Pacific IWRM project and involve the same PICs, if not the same agencies within each PIC. As such, there is an expectation that this TE report will provide some valuable insights and lessons for consideration during the planning and initial implementation phases for R2R.

B. Approach

42. The TE involved a mix of desk-top review and analysis, visits to selected participating PICs and the Project Management Unit (PMU) and implementing agency offices in Suva, and Skype or phone interviews with the remaining participating PICs and with UNEP and UNDP representatives. The TE was supervised and implemented under the direction of the UNEP Evaluation Office (Nairobi), in consultation with the UNEP/GEF Coordination Office (Nairobi), the UNEP Task Manager at UNEP/Division of Environmental Policy Implementation (DEPI) (Washington) and the UNDP RTA (Bangkok) and UNDP Multi-Country Office (Suva). The TE Terms of Reference (Annex 1) acted as the main guide to the approach taken. Table 1 provides

a schedule of the principle components of the evaluation¹.

Table 1: Terminal Evaluation workplan and indicative schedule

Task/Deliverable	Completion on or Before
Participation at Project Regional Steering Committee meeting	10-17 November 2013
Submission of draft Inception Report	24 November 2013
Submission of final Inception Report	1 December 2013
Data compilation including site visits, interviews and consultations	1 December 2013 – 25 February 2014
Submission of draft Terminal Evaluation Report	3 March 2014
Submission of final Terminal Evaluation Report	24 March 2014

43. The IWRM is complex in nature, involving two funding sources (GEF and EU), two implementing agencies (UNEP and UNDP) and 13 PICs hosting 12 country demonstration projects and participating in three regional components. Fully appreciating the complexity of this project required an extensive participatory and consultative approach to data gathering comparing what had been planned and what was actually achieved. 83 key stakeholders engaged by around 40 organisations were interviewed either personally or by Skype/phone. Table 2 summarises the schedule of interviews. A more detailed schedule and list of interviewees is provided in Annex 2. A list of the kinds of questions asked during the interview process is outlined in Annex 3. These questions did not constitute a formal questionnaire, but rather served as a guide to much richer conversations. Most interviews lasted around 90 minutes. Some were shorter, the shortest being 40 minutes; while others were longer, the longest being close to four hours.
44. An important element of the evaluation schedule was the country visits (see the appropriate subset of Table 2). Six PICs were selected to visit following negotiation with representatives of the UNDP/UNEP, PMU and participating PICs. Considerations in selecting the PICs to visit included:
- Thematic balance (watershed, stress reduction, community to cabinet/capacity building);
 - Integration with other activities in-country (good and bad);
 - Regional balance (Melanesia, Micronesia, Polynesia);
 - Logistics – availability, travel; and
 - Contribution to learning about both successes and challenges.
45. Over and above data gathered through participatory process, data sources used in the preparation of the TE Report included:
- Project design documents;
 - Relevant background documentation, inter alia UNEP, UNDP and GEF policies, strategies and programmes pertaining to sustainable water resources management, wastewater management and IWRM;

¹ The UNEP Evaluation Office coordinated a review process whereby stakeholders were requested to provide comments to the draft evaluation report. The Evaluators prepared a response matrix to the provided comments in order to ensure transparency of the revision process. All comments were adequately addressed.

- Presentations during the final Regional Steering Committee meeting in November 2013.
- Annual Work Plans and Budgets or equivalent, revisions to the logical framework and project financing;
- Project reports such as progress (including final) and financial reports from the executing partners to the PMU and from the PMU to UNEP and UNDP; Steering Group meeting minutes; annual Project Implementation Reviews, GEF Tracking Tools and relevant correspondence;
- Project Mid-Term Review (June 2012) and Audit report (December 2011);
- Documentation related to project outputs; and
- Review of media articles concerning the IWRM – Pacific project, including project website.

Table 2: Terminal Evaluation schedule of interviews

PIC	Region	Theme	Timing
Site visits and interviews			
Fiji	Melanesia	Water resources assessment and protection	11-16 November 2013 12-16 December 2013 1-3 February 2014
Samoa	Polynesia	Watershed management	9-11 December 2013
Tonga	Polynesia	Water use efficiency and water safety	17-19 December 2013
Rep. of Marshall Islands	Micronesia	Wastewater management and sanitation	22-25 January 2014
Rep. of Palau	Micronesia	Watershed management	26-29 January 2014
Tuvalu	Polynesia	Wastewater management and sanitation	4-6 February 2014
Phone, Skype or other forms of non-site interviews			
Niue	Polynesia	Water resources assessment and protection	13 February 2014
Kiribati	Micronesia	No activity undertaken	14 February 2014
Solomon Islands	Melanesia	Water use efficiency and water safety	19 February 2014
Vanuatu	Melanesia	Watershed management	19 February 2014
Nauru	Micronesia	Wastewater management and sanitation	24 February 2014
Cook Islands	Polynesia	Water resources assessment and protection	25 February 2014

46. The key evaluation criteria underpinning this TE follows :

Criterion 1: Attainment of objectives and planned results. The TE assesses the achievement of the Pacific IWRM Project objectives, outcomes and outputs. The analysis includes a review of Review of Outcomes to Impacts (ROtI) in terms of relevance, effectiveness, and efficiency according to a six-point scale as follows: Highly Satisfactory (HS); Satisfactory (S); Moderately Satisfactory (MS); Moderately Unsatisfactory (MU); Unsatisfactory (U); and Highly Unsatisfactory (HU)

Criterion 2: Sustainability and catalytic role. The TE gauges the likelihood of sustainability of outcomes at project termination, and provides a rating for the following four dimensions of sustainability: (i) socio-political; (ii) financial resources; (iii) institutional framework and governance; and (iv) environmental. The outcomes for each of the dimensions are rated as: (i) highly likely (ii) likely; (iii) moderately likely; (iv) moderately unlikely; (v) unlikely; or (v) highly unlikely.

The TE also describes the catalytic and/or replication effects of the Project including the enabling environment it created; pilot activities invested in; upscaling of activities at the national, regional, and global level; behavioral change; provision of incentives; influence on effecting institutional and policy change; stimulation of financing; and creation of opportunities for “champions”.

Criterion 3: Processes affecting attainment of project results. Among other factors, the TE considers the following issues that potentially affected project implementation and attainment of project results, including: (i) preparation and readiness; (ii) implementation approach and adaptive management; (iii) stakeholder participation and public awareness; (iv) country ownership/driven-ness; (v) financial planning and management; (vi) Implementing Agency’s supervision and backstopping; and (vii) monitoring and evaluation (M&E).

Criterion 4: Complementarity with the UNEP and UNDP strategies and programmes. The TE presents a brief narrative of: how the Project related to and links with UNEP’s Medium Term Strategy 2010-2013; how it aligned with the Bali Strategic Plan (BSP); the extent to which it considered gender (and other) equity issues; how it engaged in South-South Cooperation activities; and UNDP strategic themes and focus areas.

C. Limitations

47. Generally the major limitations challenging evaluators relate to cost and timing. Fortunately neither of these presented major constraints in this TE. Given a LARGER budget and an additional month or two, the evaluators may have been able to visit each and every PIC involved in the Pacific IWRM project. However, the evaluators’ initial view that this would not be necessary proved correct. The six PICs visited were not only a good stratified sample of the 12 Demonstration sites, their selection also had the imprimatur of representatives of all the PICs who collaborated in the selection process. Fortunately the evaluators were able to meet all participating PIC country managers in person at the final Project Steering Committee meeting convened in Nadi, Fiji over 11-16 November 2013. This helped establish a rapport that then made the subsequent visits and alternative engagement processes work well. The substantial project documentation that had accumulated for all participating PICs provided the evaluators with no shortage of data upon which to analyze the achievements of all PICs and not just those that were visited. That said, the timing of the evaluation was such that no final reports had been completed either at the country level or at the programme level other than for the Policy Component. This placed additional reliance upon and helped shape the questions asked at the interview phase.
48. With further respect to timing, the TE not only coincided with the final report preparation process but also with the substantial planning processes associated with developing the Pacific R2R programme involving many if not most of the IWRM participants. The planning process in many cases compromised the capacity of participants to complete some of the documentation that would normally be expected in a final report that might have been useful to the evaluators. Moreover, in many cases the outcomes of completed activities had yet to fully emerge. To deal with this issue, the evaluators attempted in the interviews to obtain surrogate information that would provide confidence (or otherwise) that intended outputs,

outcomes and impacts would be achieved.

49. On a positive note, the timing of the TE ahead of the R2R initiative means that it has a ready-made audience that is likely to take seriously TE insights that may influence and strengthen R2R.
50. A final limitation for some consumers of TE evaluations may lie in the Terms of Reference themselves. This TE was not intended to undertake a detailed economic benefit cost analysis that would generate quantifiable return on investment data for the project or for its individual components. To the minds of the evaluators, the initial prodocs quite rightly avoided including quantifiable investment returns, at least in economic terms. Indeed the project's goals and objectives were implicitly based on the notion that there is significant institutional and market failure across the Pacific in achieving improved water, sanitation and other community benefits. For this reason, the TE deals more thoroughly with the project management, technical and social (including development, policy and institutional) considerations than with economic ones.

III. The Project

A. Context

51. The water-related environmental problems experienced by Small Island Developing States (SIDS) are often common even though the Islands vary in their size, geomorphology, hydrology, economics and political approaches. The problems include inadequate water management and conservation, land-based sources of pollution, protection of water supplies, together with poor wastewater management and saltwater intrusion. Furthermore, the Islands have specific concerns related to climate change and sea level rise, and specific needs and requirements when developing their economies that relate to their small population sizes and human resources, small Gross Domestic Products (GDPs), limited land area and limited natural resources. Since the SIDS share common environmental problems and the potential solutions to them, the need for international cooperation among the Islands is strong in order to identify and utilize cost-effective and appropriate measures to protect water resources. The ability of the Islands to manage ecosystems in a sustainable way while sustaining livelihoods is crucial to the social and economic well-being of the Islands.
52. The SIDS and their vulnerability to global environmental changes have been high on the global agenda, for example in Rio 1992 and in Johannesburg 2002. The GEF has also been providing assistance to SIDS within the Caribbean, and the Atlantic and Indian Oceans and thus, inclusion of the Pacific region into the GEF SIDS portfolio via this project thus ensures that all GEF-eligible global SIDS are receiving a substantial level of assistance. Moreover, the SIDS network is instrumental in developing IWRM guidelines and exchange of best practices and appropriate technologies.
53. The Pacific SIDS share similar problems regarding water management and land-based sources of pollution as other SIDS around the world. Moreover, the Pacific SIDS are especially vulnerable to cyclones and drought creating a need for drought and disaster preparedness plans. The Pacific also hosts the most extensive system of marine habitats globally; critical to maintaining biodiversity, but which are threatened by waste from coastal cities. Evidence suggest that land-based pollution from inadequate wastewater disposal, increased sediment erosion and industrial discharges are detrimentally affecting coastal water quality and in turn, damaging reef ecosystems and fishing stocks that sustain the Island populations.
54. The Pacific Islands adopted a Strategic Action Programme (SAP) for the International Waters of the Pacific in 1997. The SAP identified pollution of marine and freshwater, modification of critical habitats and unsustainable use of resources as the key transboundary concerns for the

Pacific Islands and their international waters. The key solutions to the root causes were identified as (a) integrated coastal and watershed management, and (b) oceanic fisheries management.

55. The Pacific IWRM Project of GEF grew out of the SAP and was intended to be implemented in 14 Pacific Island countries, namely the Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu. Unfortunately activities planned for PNG and Kiribati did not eventuate, although Kiribati continued to participate in relevant project coordination mechanisms. Overall, the IWRM Project aimed to improve water resource and wastewater management and water use efficiency in PICs in order to balance over and conflicting uses of scarce freshwater resources through policy and legislative reform and implementation of applicable and effective IWRM and WUE plans, based on best practices and demonstrations of IWRM approaches. The project, thus, attempted to directly address the key solution (a) of the SAP: integrated coastal and watershed management.
56. The project used country-driven and designed demonstration activities on sustainable water management as catalysts with an aim to improve national water resource management through replication and up-scaling, and to regionally support the Pacific in reducing land based pollutants from entering the ocean thus, delivering significant environmental stress reduction benefits. Figure 1 highlights the countries where significant IWRM Project activities (demonstration projects) have been carried out. The demonstration activities, implemented by UNDP, were supported by UNEP implemented regional activities, such as developing environmental indicator framework, supporting policy, legislative and institutional reform, and providing support to the countries to strengthen IWRM and WUE. The project adopted a R2R IWRM approach, meaning that management of water resources also includes considerations of the receiving coastal waters, in addition to the watersheds and groundwater. It also adopted a “Community to Cabinet” approach to underpin public participation in the project involving stakeholders from local community through to water resource managers and policy makers.



Figure 1. Map of participating Pacific IWRM countries (underlined)

B. Objectives and components

57. The specific goal of the Pacific IWRM project was:

To contribute to sustainable development in the Pacific Island Region through improvements in natural resource and environmental management.

58. Its main objective was:

To improve water resource and wastewater management and water use efficiency in Pacific Island Countries in order to balance overuse and conflicting uses of scarce freshwater resources through policy and legislative reform and implementation of applicable and effective IWRM and WUE plans.

59. The project had four components, each with its own component objective and outcome as presented in Table 3.

60. Each component had its own focus area, and their implementation was under the responsibility of either UNEP or UNDP. Component 1 aimed to use country-driven and designated demonstration activities on sustainable water management to utilize Ridge to Reef IWRM approaches to bring significant environmental stress benefits. Component 2 was to develop an IWRM and WUE Regional Indicator Framework based on improved data collection and indicator feedback and action for improved national and regional sustainable development using water as an entry point. Component 3 was to focus on policy, legislative and institutional reform for IWRM and WUE through supporting institutional change and realignment to enact National IWRM Plans and WUE Strategies. Finally, Component 4 was designed to provide a Regional Capacity Building and Sustainability Programme for IWRM and WUE.

61. The project document identified key assumptions – factors that need to be in place in order for the project to meet its objectives. These included among others, strong government commitment, strong stakeholder engagement and interest of the civil society regarding water management and safety issues, availability of qualified staff, willingness of countries to collaborate with each other and availability of co-financing throughout the project. None of the identified risks were rated as high, but the risk associated with the need for Pacific Island Countries to sustain strong and high-level government commitment to improve water resources management, was considered as a moderate risk to the realization of the project and its objectives. The project attempted to address this risk through a consistent awareness raising programme for decision makers.



C. Target areas/groups

62. The Pacific IWRM project was large and complex and as such directed its activities towards achieving many targets. The main project level targets are outlined in Table 4, while targets specific to each of the participating countries are outlined in Annex 9.

Table 3. Project components and component objectives

Components	Component objectives	Component Outcomes	Lead
Component 1: Demonstration, capture and transfer of best practices in IWRM and WUE	Practical demonstrations of IWRM and WUE focused on removing barriers to implementation at the community / local level and targeted towards national and regional level learning and application	Lessons learned from demonstrations of IWRM and water use efficiency approaches replicated and mainstreamed into existing cross-sectoral local, national and regional approaches to water management. (Hereon referred to as the "Practice Outcome")	UNDP
Component 2: IWRM and WUE regional indicator framework	IWRM and environmental stress indicators developed and monitored through national and regional M&E systems to improve IWRM and WUE planning and programming and provide national and global environmental benefits	National and Regional adaption of IWRM and WUE indicator framework based on improved data collection and indicator feedback and action for improved national and regional sustainable development using water as the entry point. (Hereon referred to as the "Indicators Outcome")	UNEP
Component 3: Policy, legislative and institutional reform for IWRM and WUE	Supporting countries to develop national IWRM policies and water efficiency strategies, endorsed by both government and civil society stakeholders, and integrated into national sustainable development strategies	Institutional change and realignment to enact National IWRM plans and WUE strategies, including appropriate financing mechanisms identified and necessary political and legal commitments made to endorse IWRM policies and plans to accelerate Pacific Regional Action Plan actions (Hereon referred to as the "Policy Outcome")	UNEP (and EU)
Component 4: Regional and national capacity building and sustainability programme for IWRM and WUE, including knowledge exchange and learning and replication	Sustainable IWRM and WUE capacity development, and global SIDS learning and knowledge exchange approaches in place	Improved institutional and community capacity in IWRM at national and regional levels. (The evaluators hereon refer to this as the "Capacity Outcome")	UNEP

Source: Project document

Table 4: Project level targets and performance indicators for the Pacific IWRM Project

Output No.	Brief description	Targets / Performance Indicators
Component 1: Practical demonstrations of IWRM and WUE focused on removing barriers to implementation at the community/local level and targeted towards national and regional level learning and application		
1.1	Improved access to safe drinking water supplies	<ul style="list-style-type: none"> Population with access to safe water supply Revised legislation protecting water quality
1.2	Reduction in sewage release into coastal receiving waters	<ul style="list-style-type: none"> Population with access to sanitation Nitrogen pollution load discharged to groundwater and/or coastal waters from sewage and/or manure Reduction in drinking water source pollution National effluent standards reached for wastewater treatment
1.3	Reduction in catchment deforestation and sustainable forest and land management practices established	<ul style="list-style-type: none"> Increase in land protected and/or rehabilitated over catchment Sustainable forest & land management practices established and trialled with landowners
1.4	Water Safety Plans developed and adopted	<ul style="list-style-type: none"> Water Safety Plans in place and enacted
1.5	Integrated Flood Risk Management approaches designed and developed	<ul style="list-style-type: none"> Flood Risk Management Plans implemented
1.6	Expansion in ecosanitation use and reduction in freshwater use for sanitation purposes	<ul style="list-style-type: none"> Reduction in use of freshwater for sanitation purposes due to eco-sanitation expansion
1.7	Improved community level engagement with national institutions responsible for water management	<ul style="list-style-type: none"> Proportion of community engaged in water related issues Increase in community engagement with National Government on water issues
1.8	Increase in water storage facilities	<ul style="list-style-type: none"> Water supply storage
1.9	Technical and Allocative Water Use Efficiency approaches designed and adopted	<ul style="list-style-type: none"> Best IWRM and WUE approaches defined for each country Best approaches to IWRM and WUE mainstreamed into national and regional planning frameworks Reduction in water leakage
1.10	Identification and adoption of appropriate financing approaches for sustainable water management	<ul style="list-style-type: none"> 20% increase in national budget attributable to IWRM and WUE Catchment Councils established
Component 2: IWRM and environmental stress indicators developed and monitored through national and regional M&E systems to improve IWRM and WUE planning and programming and provide national and global environmental benefits		
2.1	Process, Stress Reduction, Environmental and Socio-Economic Status, WUE, Catalytic, Governance, Proxy, and X-Cutting Regional Indicator Framework (RIF) established and in use	<ul style="list-style-type: none"> Regional indicator framework endorsed by Regional Steering Committee and national indicator frameworks endorsed by relevant Cabinets or Ministers National IWRM indicator framework embedded in formal national reporting
2.2	Participatory M&E adopted within Demonstration Projects and mainstreamed into national best practice	<ul style="list-style-type: none"> Project design and PM&E plan endorsed by Project Steering Committee National adoption of PM&E approaches implemented
2.3	Improved institutional capacity for monitoring and support for action on findings across the region, including Pacific RAP progress for water investment planning (and International Waters SAP)	<ul style="list-style-type: none"> National staff trained in monitoring and PM&E
Component 3: Supporting countries to develop national IWRM policies and water efficiency strategies, endorsed by both government and civil society stakeholders, and		

Output No.	Brief description	Targets / Performance Indicators
integrated into national sustainable development strategies		
3.1	National IWRM plans and WUE strategies developed and endorsed	<ul style="list-style-type: none"> • <i>National strategies in place (in the form of national policy, strategic framework, plan, etc) addressing explicitly both IWRM and water use efficiency</i> • <i>20% increase in national budget attributable to IWRM and WUE</i>
3.2	Implementation of IWRM approaches agreed across national, community and regional organisations	<ul style="list-style-type: none"> • <i>Best IWRM and WUE approaches defined for each country</i> • <i>Best approaches to IWRM and WUE mainstreamed into national and regional planning frameworks</i>
3.3	Strengthened and sustainable APEX water bodies to catalyze implementation of national IWRM and WUE plans, including balanced gender membership	<ul style="list-style-type: none"> • <i>Multi-sectoral APEX bodies established</i>
3.4	Awareness raised across civil society, governments, education systems and the private sector	<ul style="list-style-type: none"> • <i>Sectors actively engaged in formal multilateral communication on water issues</i> • <i>Proportion of community engaged in water related issues</i> • <i>Regional Communication strategy in place by July 2011</i> • <i>National Communication strategies implemented by July 2012</i>
3.5	Sustainability strategies developed focusing on institutional and technical interventions required for Demonstration scaling-up as part of National IWRM Plan development and implementation	<ul style="list-style-type: none"> • <i>Technical and water use efficiency lessons from project applied in future national and project based activities by end of project</i> • <i>National lessons learned presentation packages with mainstreaming into national and regional approaches by end of project</i> • <i>National staff across institutions with IWRM knowledge and experience</i>
Component 4: Sustainable IWRM and WUE capacity development, and global SIDS learning and knowledge exchange approaches in place		
4.1	National and regional skills upgraded in project management and monitoring including water champions and APEX bodies for both men and women	<ul style="list-style-type: none"> • <i>National strategies in place (in the form of national policy, strategic framework, plan, etc) addressing explicitly both IWRM and water use efficiency</i> • <i>2.20% increase in national budget attributable to IWRM and WUE</i>
4.2	Active twinning programmes in place between countries facing similar water and environmental degradation problems	<ul style="list-style-type: none"> • <i>Five twinning exchange programs in place between countries by month 42 of the project and at least 1 program with the Caribbean on IWRM planning underway for a similar program with African SIDS</i> • <i>Women form at least 2 of the 5 twinning exchange programme members by month 42 of the project</i>
4.3	Effective knowledge Management networking and information sharing inter and intra-regional	<ul style="list-style-type: none"> • <i>Cross-sectoral regional learning mechanisms (communities of practice) in place including x-project workshop attendance for the GEF funded projects: PACC, SLM, and the ADB CTI project reviewed annually</i> • <i>GEF IW experience with IWRM upgraded for SIDS and highlighted at GEF IWC6, WWF5 Istanbul 2009, and WWF6 TBD 2012, including SIDS experience to support GEF in future IW Focal Area Strategy development and Strategic Programming</i>

D. Milestones/key dates in project design and implementation

63. Key timelines and milestones for the project were scheduled during the initial planning phase. These were relatively broad (see Table 5), and whilst the project logframe is detailed in its articulation of outputs, outcomes, indicators and assumptions, specific milestone dates tended to be incorporated into annual plans at the component level. As noted in the Mid Term Review of the project, specific targets and milestones largely appeared as end-of-project targets in the Logframe.

Table 5: Key dates in project design and implementation

Milestones	Planned Date	Actual date
Work Program (for FSP)	April 2008	April 2008
GEF Agency Approval July 2008	July 2008	July 2008
Implementation Start	February 2009	February 2009
Mid-term Review	September 2011	June 2012
Implementation Completion	December 2013	June 2014

E. Implementation arrangements

64. At the highest level of project governance, the UNDP and UNEP jointly oversaw the project as Implementation Agencies (IAs) utilizing GEF funds. This arrangement was intended to capture the comparative advantages of both organizations, each of which has large GEF International Waters portfolios based on the Transboundary Diagnostic Analysis/Strategic Action Programme (TDA/SAP) approach to the protection and remediation of transboundary waterbodies. Specifically, UNDP served as the IA for Component 1 (National Demonstration Projects). UNEP served as the IA for Components 2 (Regional Indicator Framework) and Component 4 (Regional and National Capacity Building and Sustainability Programme), with an oversight function for Component 3 (Policy, Legislative and Institutional Reform). Component 3 was financed entirely by the EU Water Facility, providing somewhat of a marriage of convenience to fulfil the co-financing expectations of each of the organisations.
65. Accountable to the UNEP/UNDP as the responsible Executing Agency (EA) was the Pacific Islands Applied Geoscience Commission (SOPAC) based in Suva, Fiji. Both the EU Water Facility Team and the Regional Project Coordination Unit (PCU) are based at SOPAC in Fiji, and together underpin the Pacific IWRM Resource Centre established by SOPAC to ensure collaboration and knowledge sharing among IWRM projects in the Pacific.
66. Project activities were coordinated and implemented through two levels of executing arrangements. At the regional level there was a Regional Execution Arrangement comprising the Regional Project Steering Committee (RSC) as the primary policymaking body for the Project, the Regional Technical Advisory Group (RTAG) and the Regional Project Coordination Unit (PCU) headed by the Regional Project Manager. At the participating country level, where the bulk of project activity was implemented (i.e. activity relating to Component 1), implementation agencies were identified and acted to coordinate activities through National Project Steering Committees (NSC), National Project Managers, National Project Assistants, and the Pacific IWRM National Focal Points.



Figure 2. Delegates at the Pacific IWRM RSC 5 meeting, Nadi, Fiji, Nov 2013

67. Section G below provides details of the substantial partnership arrangements involved in the IWRM project, reflecting the highly participatory approach adopted from its inception. The project approach at the national level follows a framework provided by the PCU during the Inception Phase and modified over time by agreement at RSC meetings to ensure activities continued to address the most critical needs within a dynamic environment.

F. Project financing

68. The initial budget for the IWRM as set out in the approved Project Document was US\$99,605,487, comprising US\$9,025,688 provided through the GEF Trust Fund (UNDP: \$6,727,891 and UNEP: \$2,297,797) and \$90,579,799 provided through in-kind and co-funding from participating countries and other donors such as the European Union. The Mid Term Review suggested that the calculation of the in-kind and co-funding was flawed, with an identified amount of national co-funding having been double counted. The matter of co-financing is dealt with in Annex 14.
69. A further complication in respect to the financial arrangements for the project is presented by the timing of the TE in advance of all project activities being completed and budget expenditures closed and accounted. For this reason, the evaluators have needed to ascertain known expenditures of GEF funds as at 31 December 2013 (Table 6). More specific expenditure details are provided in Table 7 (for the UNDP budget) and Table 8 (for UNEP budget).

Table 6: IWRM Project budget and expenditure (as at 31 Dec 2013)

Source		Budget US\$	Cumulative Expenditure US\$
UNEP		\$2,297,797	\$2,177,992
UNDP		\$6,727,891	\$6,185,575
GEF	Total	\$9,025,688	\$8,363,567
	% expenditure	100%	93%
EU		€2,822,550	€2,887,5542

Table 7: IWRM Project expenditure for Component 1 (UNDP funded) (as at 31 Dec 2013)

Expenditure location	Expenditure	% of budget
SOPAC	\$275,537	47%
Cook Islands	\$353,183	84%
Fiji	\$494,517	99%
FSM	\$486,318	97%
Nauru	\$442,208	88%
Niue	\$531,816	106%
Palau	\$523,624	91%
PNG	\$13,719	91%
RMI	\$510,518	102%
Samoa	\$501,403	95%
Solomon Islands	\$496,350	96%
Tonga	\$523,508	101%
Tuvalu	\$577,233	102%
Vanuatu	\$455,640	90%
Total	\$6,185,575	
Actual Budget	\$6,727,891	92%

Table 8: IWRM Project expenditure for Components 2 and 4 and overall coordination (UNEP funded) (as at 31 Dec 2013)

Expenditure location	Budget	Expenditure	% of budget
Coordination costs - salaries	\$1,297,051	\$1,330,424	103%
Travel	\$224,700	\$190,346	85%
Training	\$18,375	\$12,127	66%
Awareness and Communication	\$75,628	\$46,474	61%
Meetings, workshops and missions	\$385,317	\$447,588	116%
Rent, equipment and office supplies	\$58,036	\$54,585	94%
Twinning and learning	\$44,069	\$28,009	64%
Project review and evaluation	\$190,000	\$64,837	34%
Transport, shipping and courier	\$4,621	\$3,602	78%
Total	\$2,297,797	\$2,177,992	95%

G. Project partners

70. The multi-institutional and multi-sectoral nature of integrated water resources management, and the multi-country nature of a regional project, means that initiatives like the IWRM project can only be successfully implemented through extensive and relevant partnerships. This was a hallmark of the project. A complete list of partners involved various steering committees, APEX bodies and funding consortiums associated with the IWRM Project is provided in Annex 4 and summarised in Table 9. The reader should note that this list is not comprehensive; the evaluators came across many organisations, such as schools, not represented on formal committees but which actively participated in, and helped implement,

IWRM activities.

Table 9: Summary of IWRM partnerships by organisation type

Organisation type	Number of partners
International organisations	6
National Government agencies	86
Regional / Local Government agencies	8
Pacific Regional Coordination Agencies	2
State Owned Enterprises	5
Business and related associations	6
NGOs / civil society organisations	23
Total	136

H. Changes in design during implementation

71. Any project as complex as the IWRM Project, running over five years and involving multiple countries, partners and components would be expected to make modifications along the way. Most of these are discussed under the relevant headings of the TE Findings section. The most significant changes relate to implementing Component 1 activities, adjusting the reporting frameworks, responding to significant budget cuts and adjusting the UNDP cash flow regime.
72. With respect to Component 1 activities, the most significant variation was the total withdrawal of Papua New Guinea (PNG) from the IWRM Project, and the partial withdrawal of Kiribati. In the case of the former, PNG was to have implemented a Component 1 project addressing the rehabilitation, management and monitoring of Laloki River system for economic, social and environmental benefits. However PNG requested termination of this activity and all involvement in the IWRM project. Kiribati, which had also intended to participate in the IWRM project, was unable to identify a Component 1 activity given the competing demands on its limited human resource capacity at the time. Unlike PNG, Kiribati maintained a relationship with the IWRM project courtesy of participation in Regional Steering Committee meetings.
73. With respect to reporting frameworks, some of the templates for reporting progress were introduced as the project progressed. The Annual National Project Implementation Reports were introduced at the end of the first year (July 2010), and the Project Indicators reporting started once approved by the RSC in the 2011/12 year.
74. With respect to budget cuts, this was a major perturbation in initial project planning and implementation. A \$2 million reduction in GEF funds required a substantial cut to regional level activities such as travel and communication. Country budgets were given precedence and in any case presented a lesser problem after the withdrawal of PNG and Kiribati which allowed for a redistribution of Component 1 funds. Irrespective of this, the budget cuts came as a shock to the participating PICs, which drafted a '*Communiqué of Concern*' during the Project's Inception meeting in 2009 and had this sent to the Pacific UN Representative in New York. That the project was able to achieve what it did in respect to communication activities through innovative partnership arrangements and opportunistic responses is a credit to the PCU and members of the RSC.
75. Finally, with respect to financial arrangements, many countries struggled with cash flow

shortages arising from a combination of complex in-country financial arrangements (often involving several intermediaries before reaching implementing bodies) and an 80 per cent expenditure requirement before UNDP would release funds. This requirement was brought down to 60 per cent and overcame problems in most but not all countries.

76. As previously indicated, these and other issues are discussed in more detail under the relevant headings of the Findings section.

I. Reconstructed Theory of Change of the project

77. The desired impact (or goal) of the Pacific IWRM Project is “To contribute to sustainable development in the Pacific Island Region through improvements in natural resource and environmental management” through the implementation of demonstration projects, development of a regional indicator framework, development of appropriate policies and institutional arrangements and support for capacity building and sustainability activities. As the realization of this goal will take time and cannot be measured within the life of the Project, the Theory of Change (ToC) is used to determine the likelihood of achieving this desired impact in the future.
78. In most of the ToCs undertaken for the UNEP to date, the focus has largely been placed on the relationship between the lower order and higher order outcomes, with project components, activities and outputs also diagrammatically represented. Figure 3, representing such relationships specifically for the Pacific IWRM Project, is an example of a ToC showing the schematic flow diagram of linkages of various elements in achieving the Project’s impact. However, in developing the summary ToC in Figure 3, the evaluators have considered more comprehensively the range of relationships between component parts, and the processes involved, in projects as large and as complex as the IWRM Project. In effect, the lines linking boxes in ToCs do not do justice to what is really happening that give order to an effective outcome to impact pathway. The full ToC presented in Annex 10 therefore considers the different relationships that take place between inputs, outputs and outcomes at different phases of a project, i.e. during the conception, design, implementation, synthesis/reflection and legacy phases. Within and across these phases iterative relationships occur rather than linear one, hence a key element of success in projects as complex as the Pacific IWRM one is constant trialing, reflection and retrialing before moving onto new phases.
79. The ToC for the Pacific IWRM Project identifies two legacy outcomes, one higher order outcome and four lower (interim/contributing) order outcomes interacting towards the achievement of desired overall impact:

Legacy outcomes:

- a) Sustained national & regional ability to cope with demographic, economic and climatic change; and
- b) Achieving MDG 2015 targets and post-2015 sustainability goals.

Higher order outcome:

- c) Improved water resources management and water use efficiency in the Pacific Island Countries in order to balance overuse and conflicting uses of scarce freshwater resources through policy and institutional reform.
80. Achieving these outcomes, however, is dependent on several lower order outcomes and intermediate states (IS) based around specific outputs and corresponding activities.

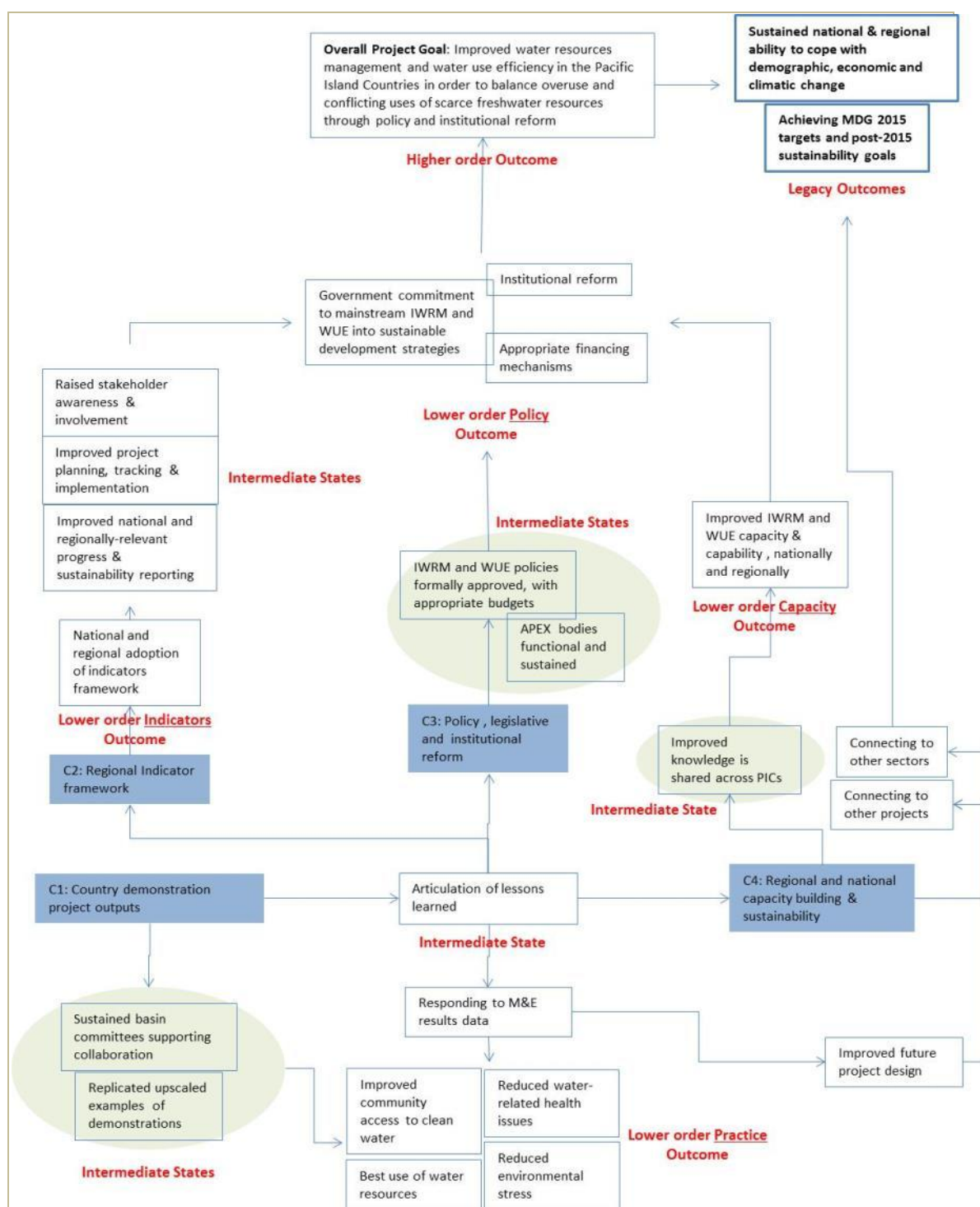


Figure 3: Theory of Change: Outcomes to impacts summary

81. What is not made diagrammatically clear in Figure 3 are the technical, cultural, social and institutional actors and assumptions that would drive or impede change. Moreover, the variable nature of these factors would also suggest that even though the fourteen participating countries have much in common, certain differences between them may enhance or impede universal adoption of project outputs, and therefore achievement of project outcomes, across the overall region. It was for this reason that the evaluators

prepared a more comprehensive ToC that appears in Annex 10. However, many of these factors, in line with the GEF evaluation methodology, represent Impact Drivers (ID) and Assumptions (A) and are identified according to the different Project Outcomes discussed above.

82. To avoid cluttering Figure 3, we list Impact Driver and Assumptions of the four Project Outcomes.
83. Under the Practice Outcome, the following ID and A must be present to underpin the following Intermediate States (IS):
 - ID: Target audiences from Community to Cabinet are reached, and their knowledge about the IWRM and WUE is reflected in their priorities, plans, resource allocation and actions.
 - A: Target audiences accept the need for change and are prepared to act both individually and collectively;
Sufficient resources exist to underpin, sustain and upscale action;
The impacts of climate change can be forecasted and taken into account in planning.
84. Under the Indicator Outcome, the following ID and A must be present to underpin the following Intermediate States (IS):
 - ID: There is a demand for and acceptance of national and regional ecosystem indicators and reporting.
 - A: The benefits of a framework can be clearly articulated and understood by a range of stakeholders.
85. Under the Policy Outcome, the following ID and A must be present to underpin the following Intermediate States (IS):
 - ID: There is a national demand for and adoption of revised IWRM plans and WUE policies.
 - A: A clear roadmap to assist with IWRM implementation is available;
APEX bodies are accepted as beneficial for IWRM and WUE planning and management.
86. Under the Capacity Outcome, the following ID and A must be present to underpin the following Intermediate States (IS):
 - ID: There is strong willingness of national experts and other stakeholders to participate in training and twinning activities.
 - A: The benefits of training and participation are understood and considered worthwhile;
Sufficient resources are available to sustain interest and participation to the point where benefits are realised.
87. We have considered these Project Outcome-level Impact Drivers and Assumptions in our assessment of country demonstration project contributions to the Pacific Regional IWRM

project (Annex 5).

IV. Evaluation Findings

88. This chapter is organized according to the evaluation criteria presented in section II.4 of the ToR and provides factual evidence relevant to the questions asked and sound analysis and interpretations of such evidence. Ratings are provided at the end of the assessment of each evaluation criterion.
89. As a prelude to outlining the achievements of the Pacific IWRM project, the evaluators considered the extent to which the recommendations of the MTR, completed in June 2012, were adopted during the intervening period. A summary of our findings here is provided in Annex 13.

A. Strategic relevance

90. The Pacific IWRM overall project objective and the objectives of its four components (integrated planning and action, results-based M&E, good governance, sustainability) and implementation strategies (demonstrating local benefits and regional capacity building) were in line with country, regional and donor priorities.
91. At the country level, most countries have developed a long-term visionary framework; a national development strategy/plan. These plans ensure development efforts are balanced across the pillars of sustainable development: financial, governance, economic development, environmental, social and cultural. The management of water resources cuts across these pillars. Current pressures on water resources and the further potential for impact from economic development, demographic change and climate change have made IWRM-like initiatives a priority. Action is then taken up in sector and cross-sector strategies and implementation plans (e.g. Samoa's Water for Life Framework for Action). As a precursor to the development of each country demonstration project, a diagnostic report and hotspot analysis was conducted, the findings of which shaped the demonstration project design. In other words, these preliminary studies helped shape the diversity of the demonstration activities incorporated into IWRM project and how they were implemented, taking into account that not all countries share the same issues or priorities.
92. At the Pacific regional level, the IWRM project flows directly from the priorities identified in the Pacific Regional Action Plan for Sustainable Water Management (RAP, 2002). The priorities have been reaffirmed during a recent and on-going process to refresh the 2002 RAP, where each country has prepared a Water, Sanitation and Climate Outlook. The emerging themes in the Outlooks include: security of water supply, sustainable environmental management, health and wellbeing, economic development, human rights and customary rights, resilience, technology and information, and good governance.
93. Furthermore, the Pacific region is reported to not be on track to reach the MDG target of halving the proportion of the population without sustainable access to safe drinking-water and basic sanitation by 2015, particularly the sanitation part of the goal and particularly for rural areas. Regional fora have identified three main challenges and constraints that hamper drinking-water, sanitation and health development.
 - Uniquely fragile water resources due to the small size of countries, lack of natural storage, competing land use and vulnerability to both natural and human activities.
 - Water service providers face challenging constraints to sustaining water and wastewater service provision due to lack of both human and financial resources.

- Water governance is highly complex due to the specific socio-political and cultural structures relating to traditional community, tribal and inter-island practices, rights and interests, interwoven with past colonial and modern practices and instruments.
94. At the global level, the IWRM Project will help organisations such as the UNEP and UNDP meet their higher order objectives of empowering nations to attain global aims such as Millennium Development Goals (MDGs). The IWRM principles are aligned to the respective mandates of these two organisations and to the MDGs in respect to environmental sustainability and global development partnerships.
 95. The UNEP Medium-term Strategy 2010–2013 identifies six cross-cutting thematic priorities as climate change, disasters and conflicts, ecosystem management, environmental governance, harmful substances and hazardous waste, resource efficiency – sustainable consumption and production. The Pacific IWRM project encompassed these themes, through the lens of water resource management.
 96. UNDP helps its partners build their capacity to integrate environmental considerations into development plans and strategies, establish effective partnerships, secure resources, and implement programmes to support sustainable, low-carbon, climate-resilient development pathways. The demonstration component of the Pacific IWRM project contributed to several UNDP strategic themes (particularly climate change and local development), and to several UNDP focus areas (particularly water & ocean governance, climate strategies, and gender).
 97. The GEF provides grants for projects in focal areas of biodiversity, climate change, international waters, land degradation, the ozone layer, and persistent organic pollutants. The Pacific IWRM project delivered outcomes under the GEF IV International Waters Strategic Programme III through working with communities to address their needs for safe drinking-water and other socio-economic benefits of sustainable and safe water resources, including balancing environmental requirements with livelihood needs.
 98. The objectives of the project's four components are realistic, individually and collectively, in and of themselves, but not necessarily in respect to timeframe, particularly for Component 3 (policy & institutional reform). The evaluators' Reconstructed Theory of Change (Annex 10) illustrates the complexity of achieving component outcomes. Component 3 has a dependency on the lessons learned from Component 1, and a dependency on achieving outcomes for Components 2 and 4, yet its funding timeline started too soon and was for a shorter period than the other three GEF-funded components. Furthermore, the ultimate decision to endorse and enact policy and institutional reforms resides in a political process, not a project delivery process.

Rating: HS

B. Achievement of outputs

99. Detailed evaluations of the four IWRM Project Components are provided under Annexes 5 to 8. The following summarises the findings in respect to the achievements and outputs of each Component.

Component 1: Demonstration, capture and transfer of best practices

100. Annexes 5 and 9 provide the source of evaluation discussion for this component. Altogether 12 demonstration projects were established under this Component (Table 10) at a total cost to UNDP up to 31 December 2013 of US\$5,910,000, representing 92 per cent of expenditure against budget. As previously discussed, PNG and Kiribati did not identify and implement demonstration projects as per the original Prodocs.
101. The country demonstration projects focused on removing barriers to implementation at the community level and were targeted towards national and regional level learning and application. This objective, through the Intermediate State of articulating lessons learned (Figure 3), is the connection to the other three components of the project, the regional indicator framework (C2), policy, legislative and institutional reform (C3) and regional and national capacity building and sustainability (C4). They also produced direct local environmental results and benefits, and health co-benefits, from on-the-ground changes in practice.

Table 10: IWRM Project Demonstration activities

Country	Demonstration project	Expenditure at 31/12/13	Evaluators' score
Cook Islands	Integrated freshwater and coastal management on Rarotonga	\$353,183	S–MS
Fiji	Environmental and socio-economic protection in Fiji: Integrated flood risk management in the Nadi River Basin	\$494,517	HS
FSM	Ridge to reef: Protecting water quality from source to sea in the FSM	\$486,318	MS–MU
Kiribati	No demonstration project	nil	N/A
Nauru	Enhancing water security for Nauru through better water management and reduced contamination of groundwater	\$442,208	S
Niue	Using integrated land use, water supply and wastewater management as a protection model for Alofi town groundwater supply and near-shore reef	\$531,816	S
Palau	Ngerikill watershed restoration for the improvement of water quality	\$523,624	S
PNG	No demonstration project	\$13,719	N/A
RMI	Integrated water management and development plan for Laura groundwater lens, Majuro Atoll	\$510,518	S
Samoa	Rehabilitation and sustainable management of Apia catchment	\$501,403	HS
Solomon Islands	Managing Honiara City water supply and reducing pollution through IWRM approaches	\$496,350	S
Tonga	Improvement and sustainable management of Neiafu aquifer groundwater resources in Vava'u Islands	\$523,508	S
Tuvalu	Integrated sustainable wastewater management (Econsan) for Tuvalu	\$577,233	HS
Vanuatu	Sustainable management of Sarakata watershed	\$455,640	S
TOTAL		\$5,910,038	

102. The country demonstration projects fell into one of four groups, depending on the intended outcome of the intervention (Table 11).
103. The project results-based monitoring and indicators framework set regional targets for these interventions, which were translated to country-specific sets of targets and indicators.

Table 11: Categories of IWRM Project Demonstration activities

Intervention group	Country
Watershed management	FSM
	Palau
	Samoa
	Vanuatu
Wastewater management and sanitation	Nauru
	RMI
	Tuvalu
Water resources assessment & protection	Cook Islands
	Fiji
	Niue
Water use efficiency and water safety	Solomon Islands
	Tonga

104. Watershed management: All four countries in this group had Indicator 6 “Increase in land protected and/or rehabilitated over the catchment” assigned. Sample achievements, described more fully in Annex 5, include:

FSM - Watershed protection boundaries for the sustainable management of 1,700 hectares of Nett watershed were agreed and incorporated into municipal laws.

Palau - The project partnered with Airai State to protect the Upper Ngerikill watershed using best management practices. Project revegetation pilots will be scaled up through Airai State funding for implementation of the Management Plan.

Samoa - National government committing to purchase 1,500 ha of upland watershed (~US\$140m) and designating it as a watershed conservation zone. This initiative has leveraged national government investment (~US\$45m) in the implementation of on-going stress reduction.

Vanuatu - Zoning initiatives in Sarakata watershed have resulted in the designation of conservation areas covering 1,060 ha. Supporting actions have involved the rehabilitation of a large commercial piggery and rehabilitation of 50 ha of degradation hotspots.

105. Wastewater management and sanitation: All three countries in this group had Indicator 13 “Reduction in use of freshwater for sanitation purposes due to composting toilet installation”

assigned. A target of 30% reduction in household water use was set for all. Sample achievements, described more fully in Annex 5, include:

Nauru – Demonstration compost toilets have been installed at the household level and also at a junior school. Without water for flushing septic tank style sanitation systems, the school has to close.

RMI - Three demonstration compost toilets have been installed, including one at the Laura Lens Learning Centre. A 30% reduction in household water use is expected based on the typical volume of a toilet flush and its contribution to total household daily use volume.

Tuvalu – 40 compost toilets have been installed covering around 280 people (~5% of Funafuti's population). Reduced water consumption per households has exceeded 30%. A further 45 toilets will be installed in Funafuti and 90 are planned on the outer islands.

106. Water resources assessment & protection: Both Cook Islands and Niue had Indicator 22 "Nitrogen pollution discharged to groundwater" assigned. Sample achievements, described more fully in Annex 5, include:

Cook Islands - A trial of upgrading and monitoring of 10 household septic systems is nearing completion. Nutrient reductions are reported already and the National Sanitation Implementation Plan includes an upscaling schedule to upgrade a further 1,200 septic units.

Niue – The ground has been laid for revising the National Building Code to include appropriate septic tank design and construction, inspection requirements and a national guideline for wastewater effluent.

107. Water use efficiency and water safety: The Solomon Islands and Tonga had Indicator 8 "Reduction in water leakage losses" assigned. Sample achievements, described more fully in Annex 5, include:

Solomon Islands – A leakage detection team has been established in the Solomon Islands Water Authority. It has identified and classified the major water leaks across Honiara as Demand Management Areas. With JICA support these areas are undergoing rehabilitation.

Tonga – An assessment on the Neiafu groundwater and sustainable management identified 70% water loss and a Loss Management Plan for the Neiafu system has been developed. The Tonga Water Board is responding to and ameliorating the major leakages.

Conclusions on Component 1

108. Without regionally compiled results against the regional indicators available, it is not possible for the evaluators to say how the project as a whole tracked against its regional-level targets. Indeed, at the country level it is still too early to quantify direct local environmental results and benefits, and health co-benefits, from on-the-ground changes in practice. Nonetheless, the narrative provides a cross-section of country/community-level achievements against the country-level indicators.
109. We reiterate our comment in Annex 5 about setting sensible and well-grounded targets, especially those related to trial or pilot technologies. We also note that, apart from possibly being too early to report quantified results, many countries seemed not to be collecting the necessary data to report such results, or if collecting them had not analysed the dataset.

Recommendation: We strongly recommend that PCU complete the activity of compiling
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the regional project indicator results for Component 1. Furthermore, we encourage assistance be given to countries to write up some aspects of their work for other audiences, as appropriate in science and development sector publications. The development sector is in desperate need of evidenced-based practice, which the Pacific IWRM project provides. The development sector often needs to seek support from the science sector to confirm status and progress, but the science sector lacks grounded information on the current situation. UNESCO comes to mind as a possible publisher and funder of a specific edition of the Pacific IWRM story – engagement, environmental and health science, practice and policy.

Rating: S

Component 2 Regional indicator framework

110. Annex 6 provides the source evaluation discussion for this component. The objective for this component of the project was to develop and use a suite of indicators for IWRM and WUE, enabling results-based reporting of progress and providing valuable feedback for improving future planning. A vision for the component was that in demonstrating the value of improved data collection and indicator feedback for the water sector, other sectors would be stimulated to do similar, improving national and regional sustainable development.
111. Indicators are an essential component of a project monitoring and evaluation (M&E) plan, along with baselines and targets. This project component intended to develop an approach that could aggregate indicator information for use at multiple M&E levels. At the demonstration project-level, tracking of delivery was guided by project logframe activity-based indicators. In addition, results-based targets and indicators provided an effective way of monitoring progress at project output and outcome levels. At a level up from project M&E, a National and Regional Indicator Framework was intended to guide IWRM/WUE sector-level results-based M&E for on-going tracking of impacts against national, regional or global goals beyond the targets and life of the demonstration project. Table 12 below is a summary of Table 18 in Annex 6 which shows the levels of M&E indicators adopted by each country.
112. Although the indicators were appropriate for keeping track of activity delivery (e.g. “Water quality data collected”), the usefulness of the indicators could have been strengthened to also provide evidence for results-based feedback on the value of the activity. This would require consideration and articulation of the question(s) the water quality monitoring was expected to answer (i.e. a clear target statement like reporting against a health or environmental standard), and giving adequate consideration to the most useful contaminants/parameters, sampling points and frequency of sampling required to judge progress towards the target.
113. Protecting or improving public health was repeatedly mentioned as a desired outcome, however the most important water quality indicator, *E.Coli* or coliforms, was rarely mentioned in monitoring programmes or for tracking performance.
114. When discussed with project managers, they agreed that future projects could be strengthened by seeking specialist advice on water quality monitoring programmes, which may be beyond the capability of in-country expertise.
115. Bringing together project components 2 (indicators) and 3 (policy), an expectation for each country was to include results-based M&E targets and indicators in national sector policies and plans. These targets and indicators needed to reflect higher-level IWRM/WUE sector and national goals that reach beyond the specific targets and life of the demonstration project,

enabling on-going tracking of progress and impacts². As for the IWRM project-level M&E, the intention was to be able to aggregate the national IWRM/WUE sector results-based reporting into regional reporting. The Pacific IWRM project included a specific component on developing a National and Regional Indicator Framework to guide sector-level results-based M&E and reporting.

² The initial set of indicator themes was: health, governance, human rights, resilience, economic growth and environmental sustainability. See papers SOPAC/GEF/IWRM/RSC.4/3 and SOPAC/GEF/IWRM/RSC.4/8.

Table 12: Summary of adoption of the IWRM Indicators framework approach

	Demonstration Project activity indicators reporting	Demonstration Project results indicators reporting	Sub-national strategy/plan includes results indicators	National IWRM/WUE strategy/plan includes results indicators	National IWRM Indicator Framework
Cook Islands	✓	✓		✓	
Fiji	✓	✓		✓	
FSM	✓	✓		✓	
Nauru	✓	✓		✓	✓
Niue	✓	✓	✓	✓	
Palau	✓	✓	✓	✓	Started
RMI	✓	✓		✓	
Samoa	✓	✓	✓	✓	Started
Solomon Islands	✓	✓	✓	✓	
Tonga	✓	✓	✓	✓	
Tuvalu	✓	✓		✓	Started
Vanuatu	✓	✓	✓	✓	

116. The RSC3 (2011) approved the broad approach for a regional indicator framework, and committed to developing national indicator frameworks, which would then be integrated into a regional indicator framework. The Mid-Term Review (MTR, 2012) noted that the work in developing the regional indicator framework had been slow, and that greater support was needed for the countries in understanding the indicator approach and developing national indicator frameworks. The RSC4 paper SOPAC/GEF/IWRM/RSC.4/8 was the PCU's response to the MTR, and according to the minutes of the RSC4, a workshop for demonstration project managers was held the week following the RSC. Of relevance to progress, the RSC4 paper noted that the process to prepare National Water Sanitation and Climate Outlook reports, which were to inform national indicator frameworks, had not been funded as intended, causing delays. Both Tuvalu and Samoa requested support from PCU to commence developing national indicator frameworks. The RSC4 paper also notes "that conceptually the framework should be sound, but until more countries have developed frameworks, discussions on aggregation can only be based on assumptions." During our terminal evaluation interviews we heard that Palau had since requested assistance, and heard Niue had a draft national indicator framework. Interview responses also suggested that progress for Tuvalu and Palau stopped when the PCU advisor resigned.

117. Notwithstanding National and Regional Indicator Framework progress, the evaluators were told in interviews about the inclusion of results-based targets and indicators in national

IWRM/WUE (or similar) strategies and implementation plans, in many cases influenced by the experiences of the IWRM demonstration project. It is worth noting that when asked about the regional indicator framework, several countries connected only with the project-level indicators, i.e. their Performance Indicator Reporting.

Conclusions on Component 2

118. From a generally unfamiliar position of project M&E processes and results-based targets and indicators, the countries have come a long way during the Pacific IWRM project. The project managers and steering committees routinely use participative monitoring, evaluation and results-based performance indicators for revision, communication and reporting. IWRM-related policies and implementation plans are increasingly incorporating M&E processes and results-based targets and indicators. As a result, monitoring data is more thoughtfully gathered and provides improved value-for-money. Although making progress at the country-level, the region seems not yet ready for a common regional indicator framework and programme.
119. Generally we noted at the country-level that water quality monitoring programmes seemed more generic than designed to answer specific questions. An important and common omission in monitoring programmes and results-based targets was the most important water quality indicator for public health, pathogen indicator microorganisms *E.Coli* or coliforms. Furthermore, there was little evidence of doing anything with data once collected. This behaviour risks spending money on monitoring for little or no gain. Having due regard for limitations in laboratory facilities and expertise in Pacific island countries, it is the opinion of the evaluators that there is room for improvement in designing cost-effective water quality monitoring programmes to answer specific questions, and on tracking performance. More attention should be given to selecting the most appropriate contaminants/parameters, knowing acceptable levels of these (e.g. health or environmental standards), planning sampling locations to gather data with and without the intervention (e.g. traditional wet and dry-litter pig pens) and to gather data with and without interference (e.g. dry-litter pig pens near and far from septic tanks), and planning some short-term intensive sampling to take account of factors like rain that affect the transport and variability of contaminants into the water as well as less-frequent and longer-term trend sampling.

Lesson: We strongly recommend inclusion of the following regional elements in future IWRM-related projects:

- provide practical training in water quality monitoring programme design and data interpretation;
- strengthen the country-level capability and capacity to carry out basic microbiological water quality tests, importantly at the location of projects since there are strict time limits between sample collection and analysis;
- make available expert support to countries to assist with or review programme design and data interpretation; and
- include pathogens/indicator microorganism targets in results-based indicator frameworks for all human-use waters (drinking-water and recreational waters).

Rating: MS

Component 3: Policy, legislative and institutional reform

120. Annex 7 provides the source evaluation discussion for this component. This component of the project stands apart in that it was almost exclusively funded by the European Union (EU) from 1 January 2008, and preceded other components of the IWRM project. The project was incorporated into the IWRM Project as Component 3 because of its integral fit with the need for the demonstration, indicator and capacity building components to be supported by national policy planning, legislative and coordination frameworks.
121. The specific EU objective of its investment was to improve the sustainability water resources management in the participating Pacific island countries through the increased involvement of regional, national and local stakeholder groups in national, catchment and community scale water governance. The specific IWRM Project objective of Component 3 was to support Pacific island countries to develop national IWRM policies and water efficiency strategies, endorsed by both government and civil society stakeholders, and integrated into national sustainable development strategies.
122. The schedule and budget for this component over 1 January 2008 through to June 2012 was €2.82 million of EU funds with co-financing of €1.02 million provided by GEF, NZAID and Australian Aid.
123. At the time of the Mid Term Review, and even upon completion of the EU project in 2012, this component appeared more aspirational than realistic. The development of national integrated water policies, plans, legislation and/or regulations, by necessity involving inter-agency and often inter-jurisdictional cooperation, is always a complex and difficult task for any country, let alone small island nations and territories where water and related environmental issues are often considered as secondary priorities to those of national economic and infrastructure development. The final achievements therefore are somewhat surprising, and highly commendable in that the aim of having all countries adopt national policies based on IWRM principles was largely accomplished.
124. In assessing the achievements of Component 3, the evaluators chose to dissect the term policy into the following mechanisms: Intergovernmental functions and national policy; Inter and intra-governmental coordination; Regulation by prescription; Planning processes; Funding functions; Information support; and Market and civil society arrangements. As can be seen from Table 13, summarising a more comprehensive Table 20 in Annex 7, nearly all PICs drafted, enacted or revised national policies consistent with IWRM principles. In most cases, these were endorsed or sought to be endorsed by PIC governments in 2012 or 2013, the final two years of the IWRM Project. Indeed, much of this accomplishment was achieved after the formal completion of the EU funding. This suggests that the mechanisms put into place during the EU support period were enduring and in themselves catalytic. It also reinforces the country coordinator perspective that the IWRM components were in a sense arbitrary; necessary to serve administrative, management and reporting purposes, but in the longer term integral to and inseparable from the overall fabric of the IWRM Project. It needs to be stressed that Table 14 only includes those initiatives where IWRM project activity had some level of input and influence, from refinement, reinvigoration or supplementation of existing policies through to conception, drafting and submission for government endorsement of new policies.
125. The catch cry of Community to Cabinet proved not to be rhetoric. All countries provided significant opportunities for community participation at many levels, with almost half of them including some form of civil society representation on APEX bodies (national water policy committees) and all of them including such representation on project steering committees, watershed management committees or local advisory committees. Certainly public participation was a hallmark of many IWRM activities, an issue discussed in more detail under

Component 4. Several interviews with policy participants suggested that this process was not only important in the political process of gaining the public's imprimatur for IWRM policy, but it provided tangible benefits by matching the PCU's demand for IWRM implementation plans with a ground up demand that these be put into place to ensure policy translated into local action. Table 14 shows that more than half the endorsed national water policies are complemented by implementation plans of one kind or another.

Table 13: Policies and institutional arrangements directly influenced by the IWRM Project

	Inter-governmental agreement & National policy	Govern-mental coor-dination	Regu-lation	Planning processes	Funding mechan-isms	Infor-mation support	Market and civil society arrange-ments
Cook Islands	✓	✓				✓	
Fiji	✓	✓		✓		✓	
FSM	✓	✓		✓		✓	
Kiribati							
Nauru	✓	✓					✓
Niue	✓	✓		✓			
Palau	✓	✓		✓			
RMI	✓	✓				✓	✓
Samoa	✓	✓		✓	✓		
Solomon Islands	✓	✓		✓		✓	
Tonga	✓	✓	✓				✓
Tuvalu	✓	✓		✓			
Vanuatu		✓		✓			

126. Noteworthy in the policy achievements has been the inclusion of sanitation as a fundamental rather than parallel policy objective in much of the policies, legislation and plans. This reinforces the fundamental consideration of public health as a driver for improved water management. For this reason, it is notable that while most countries engaged some level of health agency participation, this did not extend to specific health focussed donors.

Conclusions on Component 3

127. Ultimately most of the important targets set out in the Component 3 section of the IWRM Project logframe were met, although the attempt to write the Targets as SMART was, in the minds of the evaluators, highly ambitious. The endorsement of policy and the prescription of formal APEX bodies is ultimately a political process and a process that is influenced by a country's political and cultural institutions and sometimes writ-in-stone by its constitution. That said, the IWRM Project did remarkably well to have achieved the drafting and often the endorsement of national policies and plans consistent with IWRM principles. In most cases the drafting, submission or endorsement of policy did not occur in the target timeframes. That they occurred at all during the life of the IWRM Project could be attributed to the one principle that could be said to be the hallmark of the Project: the principle of community to cabinet engagement and national commitment, with the strategies, plans and policies being developed from the ground up using the National Water Apex Committees.
128. In this respect, it was not so much the IWRM project that drove the policy achievements but rather the citizens, NGOs, churches, and local to national political actors, no doubt empowered by the opportunities provided by IWRM project funds, committee responsibilities and on ground activities. Without community support, there would be no real ownership of policy - it would simply be relegated to a short-term obligation and opportunism. In this respect there is hope that Component 3 will provide the basis for the IWRM Project's long-term legacy.
129. Realistically, the extent to which countries demonstrate ownership of and commitment to IWRM principles will be whether they allocate sufficient resources to see plans and strategies in support of national policy implemented. In most cases, the GNP of most of the PICs makes implementation difficult without donor assistance. For this reason, the value of many of the national policies and APEX bodies will be to provide confidence to donors that their funds will be used efficiently and directed appropriately towards areas of need under arrangements that are accountable, inclusive and appreciative.

Rating: S

Component 4: Regional and national capacity building and sustainability

130. Annex 8 provides the source evaluation discussion for this component. This component was a key enabler of what has been achieved in the Pacific IWRM project, and the component's legacy becomes a key enabler of national and regional IWRM sustainability. Our broader consideration of IWRM sustainability is covered in the Findings section D.

Capacity building

131. An effective capacity building programme needs to establish conditions that will allow individuals, communities of practice and organisations to engage in the process of learning and adapting to change. We note there was a strong philosophy and practice of learning-by-doing (experiential learning) during the project, and importantly mechanisms were in place to springboard off the collective experiences (lessons learned) to broader and higher levels of learning. Here we discuss three highlights in IWRM Project capacity building.
132. **Building capability in Demonstration Project Managers.** The country project managers had the responsibility to implement and manage the demonstration projects. They were accountable, formally, to SOPAC and the relevant focal Ministry. Informally, they were also accountable to the communities with which they worked, and their RSC peers. Formal project

management, especially UN-style, was new to many. The level of detail and processes for planning and reporting was a huge challenge at the start. The PCU recognised this capability gap in its planning, and developed appropriate tools and templates to streamline project management, and provided training. The Pacific region now has a group of competent project managers who can plan projects, prepare logframes, manage delivery of services, monitor and report on progress and results, represent financial reports, and tell compelling stories about IWRM successes.

133. The knife-edge of such success is that with increased competency comes increased career opportunity. Retention of experienced and competent people is a significant issue for the Pacific.
134. **The IWRM Graduate Certificate.** The Pacific IWRM project made available the opportunity for RSC members to study for a formal qualification in IWRM while participating in the project. Sixteen students from 10 PICs graduated from the International Water Centre with a Graduate Certificate in Integrated Water Management. The course covered papers in project management, science of water, water development and sustainability, and water governance and policy. The Centre was founded by four of Australia's leading Universities (The University of Queensland, Griffith University, Monash University and The University of western Australia) and collaborates with many international researchers and practitioners.
135. **Technical awareness material.** The project has produced a significant amount of readily accessible technical material. Much of this is in forms that have value for wide-ranging audiences, not just water professionals. The real value in the material is that it is situated in the demonstration projects. Local audiences can immediately connect to "their place" and the wider Pacific can connect to places and issues similar to their own. The video material produced as part of the Pacific IWRM project is world-class, produced by Oceania Television with which the Pacific IWRM project has a partnership. The Pacific IWRM webpage provides open access to regional planning and achievement videos, national issue and progress videos, and practical technical videos.

Engagement

136. A powerful element of capacity building is engagement, but engagement fulfils additional purposes in any initiative such as the IWRM Project. Among these other purposes are 1) fostering ownership and equity, with benefits for longer term sustainability; 2) seeking agreement upon priorities and public imprimatur for action; 3) rallying collective and individual action; 4) coordinating collective and individual action; 5) eliciting financial, administrative and moral support; 6) demonstrating proof as a precursor to upscaling; 7) providing accountability; and 8) building understanding: avoiding people and organisations receiving unpleasant surprises.
137. By whatever definition, engagement was according to many stakeholders from government officials to local community members interviewed by the evaluators, the hallmark of the IWRM Project.
138. From its commencement, the IWRM Project placed a significant emphasis on stakeholder involvement and increasing awareness on the issues being addressed by the Project. The Mid Term Review highlighted that public involvement had been evident, indeed "mainstreamed" from the preliminary work undertaken in the PDF-B stages to design the project through to the positive examples seen in the national demonstration activities stakeholder involvement (in the form of participation in steering committees, basin or community management groups, etc.). Good levels of engagement continued beyond the Mid-Term cycle of the Project,

although never reached the levels of earlier years. The reason provided at many interviews was that 2013 represented a concerted effort by the regional and country coordinators on project completion and report preparation as well as planning for R2R in the latter part of that year. We also note the natural progression from the largely completed local level project implementation involving the project steering committees to a national IWRM planning focus involving National Water Apex bodies. In some countries, such as RMI, project steering committees had not met for up to twelve months prior to the evaluator's mission in December 2013 and January 2014. The dynamics of engagement are discussed further below.

139. Engagement in the IWRM Project essentially had two elements; outreach and inreach. Examples for each of these elements as they applied to the IWRM Project are outlined in Table Z in Annex 8. Essentially the outreach activities were those that engaged broader stakeholders for the purposes 1-8 outlined above. The kind of activities relevant here included the establishment and facilitation of local steering committees, participation in local trials such as testing dry litter pig pens, conduct of awareness campaigns during World Water Day, school visits, community seminars and the like. Inreach activities were solidarity-building ones that bonded the immediate family of IWRM collaborators. Examples here included the establishment and conduct of the Regional Steering Committee, internal knowledge exchange through sharing lessons learnt, and missions between the PCU and participating PICs among other activities. Another way of viewing the difference between the outreach and inreach elements of the IWRM Project is that the former was largely about effectiveness while the latter was largely about efficiency, including the catalytic role of efficiency in achieving effectiveness.
140. In an initiative such as the IWRM Project, a major element that needed to be dealt with was the cultural aspects relating to traditional community, tribal and inter-island practices, rights and interests. For this reason, the modus operandi of the overall IWRM Project approach to engagement was to devolve responsibility for it to as local a level as could be achieved while retaining accountability (i.e. providing evidence that engagement was actually happening) and rigour (i.e. ensuring engagement had purpose and appropriateness and IWRM messages were sound) . For this reason, the confidence provided through inreach activities among the country project coordinators supported their efforts at the local scale where they were all by and large culturally embedded. In many of the PICs, the church was represented on various committees, from local advisory committees such as in Tonga for example, through to National APEX Bodies such as in Tuvalu.
141. The highlight of engagement for the evaluators was the Regional Steering Committee (RCS) process. To our minds, without this, many other forms of engagement would have been much weaker and some may not have occurred at all. Indeed, nearly all members of the RCS interviewed by the evaluators stated emphatically that the RCS was pivotal to the success of the overall IWRM Project. These meetings were used to provide countries with a sense of Project level ownership, reinforced by rotating Chairpersons selected from the participating PICs. They also formed the basis of building a strong peer network that both formally and informally provided an avenue for collaboration, knowledge exchange, motivation and encouragement, venting frustration, sharing success and resolving issues. The RCS meetings were used to build capacity (see previous section on matters such as training) but most importantly to get things done. Many long days and nights were spent preparing plans and strategies and writing reports – RCS meetings were not merely fora for discussing agenda items. This meant that committee members saw practical value in the meetings and in the network, and it reflected the results oriented focus of the PCU that was underpinned by a push to extract lessons learned from all activities in the IWRM Project and to reflect on these. This is a model desperately in need of replication across other complex programs including

those supported under UNEP, UNDP and other donors. The model focusses on heartfelt commitment to outcomes rather than contracted obligation to process.

142. The IWRM Project twinning programme acted as a means of cross-regional engagement. Building on the relationships formed across the RSC, the twinning programme resulted in some valuable exchanges and sharing of expertise, none more successful than in respect to the compost toilets work led by Tuvalu. This example demonstrates how the RSC network not only underpinned the formal twinning programme of the IWRM Project, but stimulated greater than initially expected interest in an IWRM technology across PIC. An important element of the twinning work was that through engagement across PICs, capacity has been built at the regional level. This means can mitigate the risk for the region of holding expertise in just one person.
143. The IWRM Project engagement process was not uniform over time. Figures 6–8 in Annex 8 show a universal pattern at the country and regional level whereby engagement reached a peak around 2011. Notwithstanding that the small populations of PICs can result in engagement fatigue, and that some PIC demonstration activities were more focussed on policy than technical outputs (i.e. once a policy is adopted it doesn't need adopting over and over again), the evaluators are concerned that insufficient attention was given to 1) reinforcing messages through repeated but diverse (thus interesting) forms of engagement; 2) differentiating forms of engagement over time according to the phases of each demonstration project i.e. moving from priority identification through to activity adoption; and 3) developing specific exit strategies for the project beyond the aspirational replication strategies developed early in the project. That said, the peak in engagement in 2011 relates to a concerted effort to celebrate World Water day in 2011 and so set a high bar difficult to maintain. Moreover, the PCU and RCS members are to be commended for keeping excellent records on engagement.
144. The point to be made, however, is that with strengthened communication and engagement capacity now built across the IWRM family, future communication and engagement strategies could become more sophisticated than simply targeting generic audience stereotypes with generic mechanisms. A whole of life strategy should be tailored for each audience in R2R for example.

Conclusions on Component 4

145. From a baseline of few opportunities, regionally and nationally, for relevant training in project management, IWRM practice and policy development, and few opportunities to capture and share experiences and lessons, the Pacific IWRM project has delivered on its Component 4 outputs of upgrading national and regional skills, having in place active twinning programmes, and knowledge management networking and information sharing. The visible outcome of this capacity building is in the strengthened skills, competencies and abilities of demonstration project managers and project committees in particular. However, it is less clear whether these capacities, which are most strongly held in individuals, are sustainable capacities.
146. As for engagement, we cannot emphasise strongly enough that we share the view of many Project participants that this was a hallmark of the IWRM Project, at regional, national and community levels. The one concern is the decline in engagements rates at the very phases of the project where results were highly communicable, from the perspective of seeking the adoption of project results as well as avoiding the loss of momentum as IWRM seeks to achieve replication and upscaling in R2R.

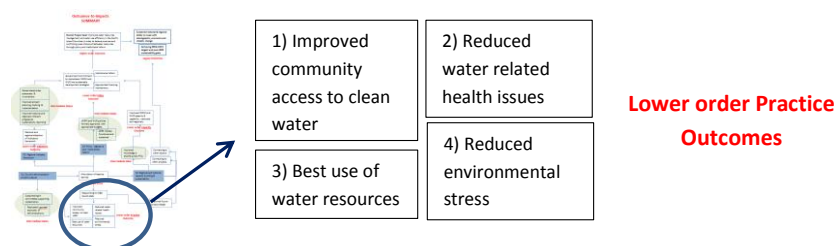
Rating: HS

C. Effectiveness: Attainment of project objectives and results

Achievement of direct outcomes as defined in the reconstructed ToC

147. The reconstructed Theory of Change, summarised in Figure 3 and provided in full detail in Annex 10 shows four sets of first level outcomes that have or should soon be achieved as a result of the IWRM Project. These lower order outcomes align to the four Components of the project; Demonstrations, Indicators Framework, Policy, and Capacity Building. The following discussion on each of these is enriched in the four Annexes (5–8) corresponding to each Component.

Country demonstration project outcomes (Practice Outcomes)



148. The previous section and Annex 5 provides the basis for assessment here, and so for the sake of brevity we avoid repetition here and for the next three Components.
149. All demonstration projects addressed issues relevant to the four Practice Outcomes, with greater or lesser emphasis on each of the outcomes.
150. **Outcome - Improved access to clean water:** This was a major driver identified in diagnostic and hotspot analyses undertaken for each participating PIC. In some cases the driver was specific to sanitation and hygiene (the emphasis on clean or safe water); in other cases it was specific to ensuring sustained access to clean water, particularly where increasing climatic variability is resulting in harsher and more prolonged droughts or where system losses/leakage were significant (the emphasis on access to clean water). Many of the technologies demonstrated, such as the compost toilets and dry litter pig pens are showing signs of reducing water contamination, but much of the testing is at the immediate scale of the demonstration, and hence it is not yet possible to say whether the wider water resources, either surface or groundwater, are cleaner. In reality, for this to become the case, significant adoption of the technologies will be needed. Progress in Tuvalu is particularly promising in this respect.
151. At the watershed scale, promising action is occurring to reduce agricultural pollutants reaching water supplies in Fiji, FSM, Palau, Samoa and Vanuatu. The designation of conservation areas in key hotspots is likely to serve these countries well.

Rating: S

152. **Outcome - Reduced water related health issues:** As noted elsewhere in Indicator Component discussions, there was little monitoring of key pathogens such *E.coli* to prove the extent to which improvements in health have been made. We did not hear of any examples of attempting to review changes in health statistics, although in reality even if the statistics track diarrhoeal disease, it is very difficult to attribute any change to water quality because of the multiple sources of diarrhoea-causing pathogens. However we were given anecdotal evidence when speaking to community representatives in several countries (RMI, Tuvalu, Tonga) that the incidence of diarrhoea had been reduced through a combination of improved water

quality and increased awareness of good personal hygiene.

Rating: MS

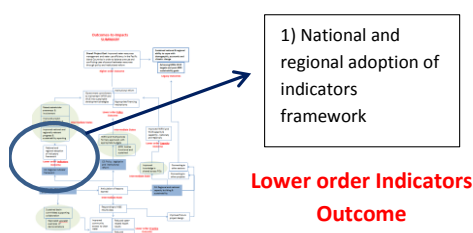
153. **Outcome - Best use of water resources:** In many of the participating PICs, leakage of water is a significant issue, with countries such as the Solomon Islands, Samoa and Nauru showing that upwards of 70 per cent of water is wasted through leakage. Leakage reparation is in place in all these countries, largely through donor funds following initial identification of hotspots under the IWRM project.
154. The compost toilets and dry litter pig pens are relevant here too. In both cases, these technologies reduce household and commercial water use considerably through avoiding the need to flush (compost toilets) and the need for regular hosing of concrete pens. In the case of the former, household water availability has increased by at least 30 per cent in those homes that have had them installed. The high demand for these toilets in Tuvalu should mean a significant national impact on water availability, which hopefully will act as further impetus to adopt the technology more broadly within other PICs. Again, the signs for this are promising in RMI and Vava'u (Tonga) in particular.
155. Several countries (Niue and Tonga provide examples) are making progress towards reducing the reliance on precious groundwater resources by installation and rehabilitation of rainwater harvesting systems, including increasing substantially the storage capacity. This initiative, more generally, is supported by a wide range of donors.

Rating: S

156. **Outcome - Reduced environmental stress:** The indicators to demonstrate reduced environmental stress tend to require longer term monitoring. Intermediary indicators, such as specific land use change or practice change, tree planting, creation of conservation areas are more applicable to the timeframes of projects such as the IWRM Project. To this end, the technologies (e.g. compost toilets and dry litter piggeries) and watershed planning actions discussed previously are moves in the right direction. The work under Component 3 (Policy) is relevant here in that most countries either have or are well advanced towards having national water policies. In many cases these are being complemented with IWRM plans that provide a roadmap for scaling up IWRM Project activities to the level where we should start to see the evidence for stress reduction, such as reduced nitrogen and phosphorus levels in water showing up in extensive and ongoing monitoring regimes.

Rating: MS

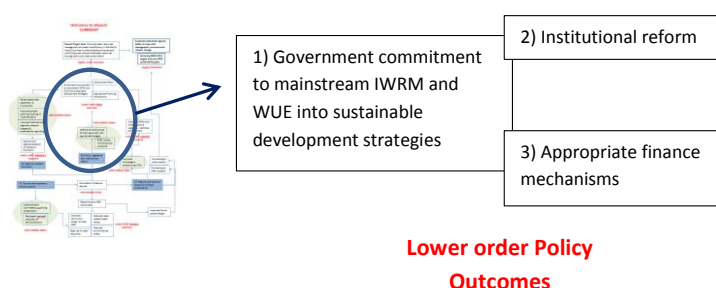
Regional indicators framework outcomes (Indicators Outcome)



157. The previous section and Annex 6 provides the basis for assessment here. All countries addressed the Indicator Outcome to a greater or lesser degree.
158. **Outcome - National and regional adoption of the indicators framework:** This outcome was not fully achieved. As discussed in the previous section, the IWRM project managers and steering committees now routinely use participative monitoring, evaluation and results-based performance indicators for revision, communication and reporting of their project-based activities. IWRM-related policies and implementation plans are increasingly incorporating M&E processes and results-based targets and indicators. In many cases we heard at interviews that where indicators were not specifically incorporated into national policies, then at least national policies highlighted the need for the development of indicators appropriate to showing the effectiveness of progress in implementing national policy. Although making progress at the country-level, the region seems not yet ready for a common regional indicator framework and programme. As discussed elsewhere in this report, the work on indicator frameworks underestimated the difficulty that would be experienced in incorporating indicator frameworks into national policy and monitoring settings, particularly where these settings were not in place until towards the end of the IWRM Project.

Rating: MS

Policy, legislative and institutional outcome (Policy Outcome)



159. The previous section and Annex 7 provides the basis for assessment here. All countries significantly addressed the Policy Outcome.
160. **Outcome - Government commitment to mainstream IWRM and WUE into sustainable development strategies:** During the life of the IWRM Project, nearly all PICs drafted, enacted or revised national policies consistent with IWRM principles. In most cases, these were endorsed or sought to be endorsed by PIC governments in 2012 or 2013, the final two years of the IWRM Project. Much of this accomplishment was achieved after the formal completion of the EU funding and reflects the time it takes to progress significant policy initiatives through the machinery of most governments. The extent to which this work may influence broader

development strategies will hinge on the extent to which the livelihoods of citizens depend on clean water over and above economic considerations. In Tuvalu, for example, which does not seek to become a tourist hub for the Pacific and where drought can reduce the availability of drinking water to days, water holds a premium that shifts it up the political agenda.

Rating: S

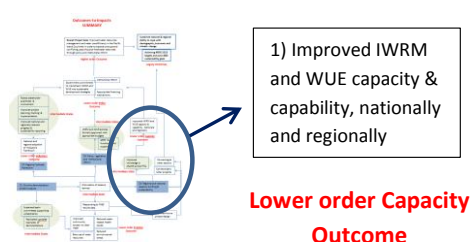
161. **Outcome - Institutional reform:** Most countries either established or reinvigorated APEX bodies to provide a whole of government approach to dealing with IWRM. While national water policy was in every case delegated to a single agency for direct implementation, many of the APEX bodies act as an oversight body in such implementation. This is particularly the case with the smaller PICs such as Tuvalu, where resources are limited. Here, the national APEX bodies sometimes have a wider remit, such as national disaster management. In such cases, this exposes the principles of IWRM to a wider government audience.
162. In some countries such as Fiji, Samoa, Tonga and Palau significant watershed management committees or alliances of regional water groups have been formed, while at smaller scales in the RMI and Solomon Islands local community groups have been created to oversee water related activity in their districts. The establishment of IWRM Project Steering Committees in all participating PICs has also acted to bring the local voice to whole-of-government discussion on water issues. Some of these committees tend to be project based and may not endure beyond the life of project support.
163. In some countries, the IWRM Project has helped shift how some agencies implement their water policy responsibilities. In Nauru, for example, the government has created a Water Unit within the Department of Commerce, Industry and Environment that can focus on the application of IWRM principles through the regulation and monitoring of the water sector.

Rating: S

164. **Outcome - Appropriate finance mechanisms:** Where national policy is complemented by various implementation plans, and implementation involves a revision of roles and responsibilities in the use of existing resources, action is likely to proceed. On this basis, there are good grounds to believe that national policies adopted across the participating PICs will to some extent be implemented. However, in many cases the IWRM plans that accompany national policies involve major infrastructure and reparation expenditure, such as addressing water leakages and installing widespread rainwater harvesting measures, will require dependence on donor funds to see implementation through.
165. In reality, the GDP of many PICs is such that donor dependency will endure long after the IWRM Project. Here though, the policy work of the IWRM project has significantly improved water governance policy and structures and will provide donors with enhance confidence that their funds are going into high priority areas with strong community support. JICA, New Zealand Aid Programme and Australian Aid for example have made donor decisions to help implement strategies identified by the IWRM Project, including reparation of leakages in the Solomon Islands, Rainwater harvesting tanks in Tuvalu, and complementary integrated water catchment management systems in Tonga.

Rating: MS

Regional and national capacity building & sustainability outcome (Capacity Outcome)



166. The previous section and Annex 8 provides the basis for assessment here. All countries significantly addressed the Capacity Outcome.
167. **Outcomes - Improved IWRM and WUE capacity and capability, nationally and regionally:** The IWRM project has performed with distinction in capacity building, from building a network of highly professional country coordinators through to developing a vastly improved understanding of IWRM principles. As one policy representative interviewee put it: *“This project helped us get it. I mean, we now really get it. We understand IWRM and are now committed to it.”* The project has excelled in delivering on its Component 4 outputs of upgrading national and regional skills, having in place active twinning programmes, and knowledge management networking and information sharing. The visible outcome of this capacity building is in the strengthened skills, competencies and abilities of demonstration project managers and project committees in particular.
168. However, it is less clear whether these capacities, which are most strongly held in individuals, are sustainable capacities. Moreover, in many cases the result of developing new national policies and implementation plans now means there are many more areas of activity that have been highlighted as priorities, which in turn will require even greater capacity as PICs move from a planning phase to an implement and upscaling phase.

Rating: HS

Likelihood of impact

169. In line with UNEP evaluation methodology, the outcomes discussed above have been placed in context of their relationship with intermediary states (pathways to success indicators) and the Project goal to determine whether the IWRM Project will ultimately have an impact (i.e. rated Highly Likely through to Highly Unlikely). The evaluator’s view that the impact envisaged by the IWRM goal will be reached is outlined in Figure 4.

Achievement of project goal and objectives

170. The achievements outlined in the previous two sub-sections are supported by anecdotal and documented evidence, most of which is qualitative in nature. In terms of assessing the performance of the IWRM Project against the specific targets and indicators set out in the project logframe, there was little quantitative evidence particularly for those targets and indicators where scaling-up was an important factor in success. In the stress reduction areas, for example, quantifiable data supporting success stories existed at plot or demonstration site level but not in terms of catchment or regional scale impacts. This is perfectly understandable for a project where the budget was spread thinly over twelve countries with limited access to laboratory and analytical skills let alone access to capacity to install enough monitoring equipment to nail down the evidence at sub-catchment, catchment or national scales.

171. With that in mind, the evaluators were very mindful to seek out surrogate information relating to intermediary states that would suggest project activities are on the appropriate pathway to success given what we know about cause and effect relationships from other international IWRM experience. Our assessment in the review of outcomes to impacts in the previous section relied on this judgement for example.
172. The logframe for the IWRM Project amounts to seven pages, and was eventually supported by twelve logframes at the participating PIC level. Time constraints have precluded a line by line analysis of measuring achievement against every individual indicator and target for the project in its entirety. That said, at the aggregated Project level we have provided a brief assessment against the 42 targets / performance indicators, essentially summarising much of the narrative content of the TE report to this point. This assessment appears in Annex 11.
173. The assessment in Annex 11 supports the judgement of the evaluators that the Project will, and already has to some extent, achieved the project objective of improving natural resource and environmental management across the Pacific.

Results rating of project entitled: Implementing sustainable water resources and wastewater management in Pacific island countries							
Project objective: To contribute to sustainable development in the Pacific Island Region through improvements in natural resource and environmental management.							
Outputs	Outcomes	Rating (D – A)	Intermediate states	Rating (D – A)	Impact	Rating (+)	Overall
There are 10 outputs associated with Component 1: Country demonstration projects	1.1 Improved access to clean water 1.2 Reduced water related health issues 1.3 Best use of water resources 1.4 Reduced environmental stress Rating: B	B	Sustained basin committees supporting collaboration Replicated up-scaled examples of demonstrations Rating: A+	A+	Improved water resources management and water use efficiency in the Pacific Island Countries in order to balance overuse and conflicting uses of scare water resources through policy and institutional reform	+	Highly Likely
There are 3 outputs associated with Component 2: Indicators framework	2.1 National and regional adoption of the indicators framework Rating: B		Raised stakeholder awareness and action Improved project planning, tracking & implementation Improved national and regionally relevant progress & sustainability reporting Rating: B+				
There are 5 outputs associated with Component 3: Policy, legislative and institutional reform	3.1 Government commitment to mainstream IWRM and WUE into sustainable development strategies 3.2 Institutional reform 3.3 Appropriate finance mechanisms Rating: B		IWRM and WUE policies formally approved, with appropriate budgets APEX bodies functional and sustained Rating: B+				
There are 3 outputs associated with Component 4: Capacity building and engagement	4.1 Improved IWRM and WUE capacity and capability, nationally and regionally Rating: A		Improved knowledge is shared across PICs Connections to other sectors and projects Rating: A+				
Rating justification: The B rating reflects that the project's intended outcomes have been delivered to greater and lesser extents across the Components. Substantial progress has been made for those components where a rating of B is given, and these will eventually be achieved.			Rating justification: The A+ rating reflects that there is already evidence that the project's intermediary states have largely been achieved, laying down the platform for achieving project outcomes and ultimately its goal and objective.		Rating justification: The work of the IWRM has been catalytic. The momentum will continue with known additional funds from Donors being allocated to areas of activity outlined in IWRM plans. GEF RR initiative will see substantial up-scaling achievements..		

Figure 4: Results and ratings of Review of Outcome to Impact (ROtI)

174. Much of the success of the Project can be attributed to the remarkable coordination arrangements that were put in place and the positive impact that this had on development of an effective network of country project coordinators. The level of camaraderie among the Project coordinators, both regional and national, in many ways masks the high level of professional work ethic expected of team members. Regional Steering Committee meetings were often run as workshops and not simply as courtesy visits and formal reporting obligations. These meetings very much underpinned the results based learning approach expected to be infused at every level of operation back within participating countries. Ironically, the anecdotal nature of drawing lessons from actions may have been a more powerful and certainly more empowering means by which progress could be tracked and poor performance rectified than through more formal and less humanistic templates and indicator frameworks.

D. Sustainability and replication

175. Sustainability is understood as the probability of continued long-term project-derived results and impacts after the external project funding and assistance ends. In this section, we draw on our assessments of the demonstration projects (Annex 5) that were made against the Impact Drivers and Assumptions drawn from the reconstructed ToC (Annex 10). These assessments highlighted the key technical, cultural, social and institutional factors and assumptions that have supported or impeded achievements and will likely contribute or undermine the persistence of benefits. We also consider the role of the other regional components and the role of the PCU in preparing the countries and the region for sustained activity and replication.
176. Referring to the full ToC presented in Annex 10 that considers relationships at conception, design, implementation, synthesis/reflection and legacy phases of the project, and the summary ToC (Figure 3), we draw attention to two important pre-requisites for achieving the Higher Order Outcome (the overall project goal) and Legacy Outcomes. Reaching the Lower Order Policy Outcome (Component 3, mainstreaming IWRM through policy) will provide the basis for the Pacific IWRM project's long-term legacy, coupled with connecting to other projects and sectors. The project did remarkably well to have achieved the drafting and often the endorsement of national policies and plans consistent with IWRM principles (see Annex 7), and in many countries IWRM activities are connected to other sectors, for example climate change through PACC projects and land use management. The upcoming R2R projects, extending from ridge to reef will provide further opportunities to integrate sectors.
177. Financial resources: There is a significant risk for many countries that without further donor assistance for IWRM, whether bilateral or through a regional initiative, the momentum towards sustaining the beneficial aspects of what has been started by the demonstration projects and replicating throughout the country will be lost. Funds are required for IWRM staff salaries and expenses, capital expenditure, and operations and maintenance expenditure, and continued capacity and capability development.
178. The upcoming R2R initiative throws a short-term lifeline. Several countries have been able to secure departmental budget lines for retaining IWRM staff, and for example, Palau has secured national budget to begin implementing the Airai State Watershed Management Plan. For several countries the IWRM demonstration project has been catalytic in securing further donor funding. For example, Cook Islands has secured funding from the New Zealand and Australian Aid programmes and the EU to roll out upgrading of household septic systems. The Solomon Islands has secured funding from JICA to extend leak detection work. The close association of IWRM and PACC projects provides a pathway to pursue at least some sustainability and replication activities through climate change adaptation programmes and budgets.
179. An important part of promoting sustainable outcomes is planning for the end of a project, known as an "exit strategy". The TE evaluators are aware of RSC discussions of an exit strategy for Component 3, but we did not hear of an equivalent at either regional-level or country-level. Experience shows the sustainability of a project is improved if support is reduced gradually as the local capacity and capability increases. Our primary concern with the apparent lack of exit strategies at the project level, particularly where the demonstration project was situated in a local community with a local steering committee, is the fall off in local interest we have already observed without the prompting, motivation and support of the

IWRM project manager.

Rating: L

180. Socio-political: Without doubt, the concept and practice of IWRM is embedded in PIC government thinking and planning, and is embedded in the communities at the centre of demonstration sites. Country-level stakeholder analysis, and the development and implementation of engagement and communication strategies were important activities in every demonstration project activity plan. Every country has either a Cabinet-endorsed or – submitted National IWRM Strategy (or similar), which raises the level of ownership to the highest level, and fulfils a critical legacy pre-requisite. Every country had an active general public awareness programme. For community-centric demonstration projects, the communities have demonstrated their commitment to change through demand for uptake of technologies (e.g. composting toilets) and action (e.g. watershed protection and clean-up). We heard, however, that away from community demonstration project locations, awareness, knowledge or interest in IWRM can diminish. We repeatedly heard the importance of local-level champions and the value of the project manager and office being closely connected to the local community. Locally-beneficial practical projects seem to better attract the interest and involvement of community, and in doing so provide a common or public good to the country.

Rating: L

181. Institutional framework: As can be seen from Table 11 and Annex 4, there has been multi-institutional engagement in the Pacific IWRM project within country. Countries had some form of National Water Committee (APEX body) at the start of the project, but many of these were inactive. The project has stimulated committee activity, providing them with a focus and a participatory governance role. Many of the APEX bodies broadened their membership, as necessary to fully embrace IWRM. With the development and endorsement of national IWRM strategies and implementation plans, and in the context of national development strategies, many of the APEX bodies are taking on a national functional role, providing governance to the implementation of these national strategies. Projects like Pacific IWRM provide the opportunity to put the national water strategy into practice at the local level.

“Through the lessons learned, the National APEX body will learn effective ways to integrate IWRM principles at the national, provincial and community levels.”

182. Another layer of institution is the local or project steering committee. These committees had a formal connection to the national institutions, which was important in securing commitment to the workplan from government departments and connecting to departments that were not members of the project committee. The institutional framework moving into replication needs to recognise this local-level of institution also requires resourcing and technical support.
183. The Regional Steering Committee (RSC) was the primary policy-making body for the project. The RSC adds a regional component to the institutional framework and governance of the Pacific IWRM project. This aspect of institution was very strong, and the PCU can be congratulated on how this was achieved and sustained. One member of RSC from each country represented the government with authorisation to make decisions on project matters, giving country voice to regional decisions. One of the most influential roles of the RSC, in the opinion of the evaluators, was its camaraderie. Committee members provided advice, support and encouragement, and challenges to each other, knowing they were jointly responsible for project accountability and success.

Rating: L

184. Environmental: The two most obvious environmental factors that could influence the attainment and sustainability of environmental and other project benefits are (i) rapid onset natural disasters, and (ii) slow onset climate change and variability. By strengthening capacity to better deal with current IWRM challenges, adaptation strategies can improve country and community ability to respond to current climate variability and adapt to future climate change. For example the Tuvalu demonstration project responding to drought is setting the country up for dealing in the longer-term climate change water scarcity. The strong connection between the IWRM and PACC projects and between national water resources and climate change strategies is mutually beneficial. Of more concern to sustainability of IWRM project benefits are the rapid onset natural disasters, like cyclones and floods. These events have the potential to destroy infrastructural improvements, taking communities back to square one. Ironically, the very focus of the Fiji demonstration project is flood risk management; the more flooding, the more the benefit of the project is demonstrated and its need to be replicated in other at-risk catchments.
185. Noting the integrated nature of water supply and wastewater management, care needs to be taken when planning for up scaling access to and availability of water supply because this will inevitable place an increased burden on wastewater disposal, and in turn impact on the receiving environment.

Rating: L

186. Catalytic role: *"Doing is seeing the need"*, a now famous quote from the PCU, that can be applied to the catalytic role of the demonstration projects in influencing community uptake of technology and policy change, and that can also be applied to the catalytic role the PCU and RSC had on capability development of the country project managers. To illustrate the catalytic role of the Pacific IWRM project, we consider two dimensions of catalysis - what has changed, and what was the catalyst of change. One of the most common catalytic changes we heard about was the broadening of governance structures, bringing together agencies and stakeholders that had never sat together before over water issues. Types of catalysts we became aware of included the person/champion, the engagement approach, sharing knowledge, being mandated to act, and the perceived or demonstrated benefit. We provide two further examples of where the IWRM project was the catalyst of significant change.
187. The institutional changes that took place across participating PICs will continue to prove catalytic. As a result of participation in the IWRM project, all the PICs now have either the legislation or the policy settings in place to sustain implementation of IWRM principles through national, and in some cases also regional, inter-agency governance structures. These structures will help not only in the national coordination of water policy implementation, but also in the consideration of other policy domains such as sanitation, disaster risk management, forest and conservation area management, building codes and land use allocation and regulation.
188. At the technical level, and at the risk of repetition, the acceptance by community of composting toilets cannot be emphasised enough. At the start of the project in Tuvalu (and common for many PICs), the idea of composting toilets was received by communities as a backwards step. Through a considered engagement approach, and by taking the falevatie on a road trip to the people, and by carefully managing the process of selecting and regularly inspecting the demonstration sites, the project has turned around non-acceptance of composting toilets to the point where demand has well outstripped the ability to supply

falevatie. The catalytic effect of this success in Tuvalu extends to several other PICs, where they have been sparked into considering the introduction of composting toilets in their own demonstration projects. Given that for many years many aid agencies have struggled to gain greater acceptance of the use of compost toilets, the achievement of the IWRM Project might be considered to be a major breakthrough with broader international benefit beyond the Pacific.

189. Use of project management tools like logframes and results-based reporting. At the start of the Pacific IWRM project, the concept of formal project management including the use of results-based targets and indicators for M&E, reporting and communicating was new to many project managers. Through the early stages of the project, and in particular through the RSC forum, the PCU has transformed the project managers into a valuable resource for the region. The PCU has skilfully applied an appropriate balance of individual and group support and pressure.
190. Replication and scale-up: The PCU developed a *Replication and Scaling-up Toolkit for IWRM in Pacific Island Countries* (SOPAC/GEF/IWRM/RSC.3/16). The definition of 'replication' adopted by the Pacific IWRM project was the activity of copying the specific features of a water resource or wastewater management approach that made it successful in one setting and re-applying these as part of an IWRM process in the same or another setting. The definition of 'scaling-up' adopted was the activity of increasing the process, stress reduction and environmental state impacts of successful water resource or wastewater management approaches via their application at broader geographic, policy and planning, and institutional scales as part of an IWRM process.
191. The most high-profile example of both replication and scale-up is that of the Tuvalu design of composting toilets and its approach to introducing this to communities, with replication advice being considered and applied in other countries including Palau, Tonga, RMI and Nauru, and scale-up happening within Tuvalu. Another example of replication is the improved flood disaster warning system in the Nadi Basin being replicated in other regions in Fiji. This system is potentially life-saving, and the evidence that the system demonstrated through the IWRM Project work in the Nadi Basin has worked (i.e. there was no loss of life during either of the two major floods over the past two years when it has been tested) has reinforced commitment to its replication. A further example of scaling-up is the rolling out of upgrading household septic systems in the Cook Islands.
192. The decision to replicate and/or scale-up happens after there is adequate evidence of the social, environmental and economic benefits of the project. Such evidence has been provided through IWRM demonstration projects (see examples provided above), but it has also occurred at the institutional level. For example, the watershed management plans and committee structures developed in specific catchments in Palau, Tonga, Samoa and Vanuatu now serve as models that are intended to be replicated within other catchments in these PICs.

Rating: HS

E. Efficiency

Timeliness

193. Substantial effort went into the design process of the IWRM Project, which put it in good stead for implementing activities over its five year duration. Early RSC meetings placed great emphasis on turning Prodoc ambitions into regional and country strategies and plans,

including country demonstration logframes, and country and regional M&E, communication and engagement strategies. Subsequent RSC meetings were used to not only report on progress, but to enact responses to issues of timeliness where these arose. In many cases the RSC meetings were used to expedite the development of strategies and activities under closer PCU and regional peer scrutiny and assistance.

194. That said, issues of timeliness will always arise in initiatives as complex as the IWRM project. Expectations that national policies and plans would be enacted in the first half of the project were too ambitious, but nonetheless largely achieved over time. Likewise, work on indicator frameworks underestimated the difficulty that would be experienced in getting countries' collective heads around what was needed. Incorporating indicator frameworks into national policy and monitoring settings therefore too was overly ambitious and could not be fully accomplished within the life of the Project.
195. The US\$2 million in budget cuts (discussed in later finance sections) reduced the support functions that may have assisted countries keep to targeted milestones. The development of logframes and implementation of country activities was slower than envisaged, and many activities did not get into full swing until 2011. Despite this, most countries completed their demonstration activities by December 2013, with the Cook Islands being given dispensation to complete groundwater studies by June 2014.
196. From an evaluator's perspective, and while fully appreciating that reporting can often come second to implementing action in terms of meeting performance criteria, the delay in submission final reports made the job of evaluation more difficult. Our concern is less about having access to well written reports than it is about the time put in by country coordinators to rigorously analyse their progress against the specific targets outlined in their logframes. The lessons learned approach to much of the reflection and reporting in the IWRM Project is highly valuable, innovative and commendable, but it should be complementary to the formal analyses of progress. As a result, the Evaluators had to rely upon anecdotal evidence from interviews as to the per-centage achievement made against each target. The M&E process had a rigorous process for doing this, which was applied to degrees of varying quality in mid-term reports.
197. With respect to timeliness, the issue of final reporting is symptomatic of wider issues at play when major initiatives come to conclusion at the time major new initiatives come into planning phases. No doubt planning for R2R has meant that the limited capacity of the PCU could not fully focus on neatly concluding the IWRM Project, despite considerable work that went into exit, replication and final communication strategies at RSC meetings 4 and 5. Certainly the IWRM project would have benefitted from more synthesis analyses of achievements along the lines of gender report, and to a lesser extent the stress reduction report, presented at RSC 5. The evaluators had hoped to have seen some of this synthesis in a project level final report, but this has yet to be prepared at the time of the TE. The MTR suggested that this issue may arise, whereby the country demonstration projects may have been completed but insufficient time may be given to turning the benefits at the country scale into regional scale benefits.
198. Factoring in synthesis into the timeframes of future projects is recommended for future UNEP and UNDP programmes and projects.

Cost efficiencies, adaptation and effect of delays

199. The budget cut of US\$2 million in GEF funds at the commencement of the project forced the IWRM Project to achieve substantial cost efficiencies to ensure that the project would not be

adversely affected to the point where it could not achieve its objectives. This cut was made very late in the project's execution, and so responses to it had to be dealt with in the initial implementation phase (Inception and RSC 1) rather than during the design phase. Table 14 shows how the final approved GEF budget compared to the initial planning budget.

200. The following excerpt from the RSC 1 minutes summarises the implications of the budget cut:

Mr. Wilson reiterated his point made at Agenda Item 4.2.7 that one of the consequences of the budgetary cuts was that there was only 105,000 US dollars allocated over the 5 years of the project to fund intra-regional travel of PCU experts to visit Demonstration Project Management Units, Lead Agencies, and supporting organisations and projects. He noted that this level of funding would not even allow the PCU to visit each country in a year. The consequence of this being that the PCU could only service three to four countries per year, and that each country would be visited once every second year and possibly a maximum of three times during the project. He commented that this clearly was not the intention of the project design which provided for a PCU with significant resource expertise to provide assistance to demonstration projects and participating countries in the implementation of IWRM. He noted also that there was a large shortfall in the funds required to convene meetings of the Regional Project Steering Committee, the project budget provided 12,500 US dollars for the Inception Meeting which was manifestly inadequate given that 55,000 US dollars of regional funds had been used to fund travel and allowances of members to the Inception Meeting, and that cost saving measures such as the purchase of non-refundable air-tickets for participants had enabled substantial savings. He ensured that the Committee also understood that funds were only available for three years for three of the four professional staff of the PCU and that this meant that for the final two years of the project there were only funds for the Regional Project Manager.

Table 14: Initial planned budget compared against final approved GEF budget

	Planned budget (USD)	Approved budget (USD)
PDF A	\$25,000	\$25,000
PDF B	\$697,000	\$697,950
Pacific IWRM	\$10,700,000	\$9,025,688
UNDP Agency Fee	\$747,715	\$727,354
UNEP Agency Fee	\$394,580	\$247,460
Total	\$12,565,245	\$10,723,452
Component 1	\$6,300,000	\$6,055,891
Component 2	\$876,560	\$800,463
Component 3	\$347,000	0
Component 4	\$1,005,000	\$1,327,292
Component 5	\$1,101,000	
Component Totals	\$9,630,000	\$8,183,646

(Source: RSC1 minutes)

201. Under these predicted circumstances, and in the absence of attracting other major donor funds to make up the shortfall, it is commendable that the IWRM Project was able to continue and be as successful as it has proved. This was enabled by the following adaptations:

- Reliance on the EU funding to complete the Component 3 outputs, with countries taking greater ownership of the policy processes internally;
- Innovative leverage of communication expertise, including collaboration with the Oceania Television Network (OTV);
- More rigorous expectations placed on quarterly reporting to counteract the reduced

travel and face to face missions by the PCU; and

- Reallocation of budgets after PNG and Kiribati withdrew from hosting demonstration projects, enabling the PCU to maintain staff levels beyond the first three years.
202. An innovative use of overall resources, human and financial, was achieved through the multi-objective nature of RSC meetings. These tended to last for two weeks, building on the premise that most of the cost was for flights and so extracting maximum value out of travel was achieved through aligning meetings, workshops and training sessions. This not only represented savings in travel, it also helped in the process of forming a strong, constructive and enduring network across the country coordinators.
203. From an efficiency perspective, the expenditure of 93% of budget to 31 December 2013 together with the level of achievement of the Project across all four Components represents an efficient use of funds, even more so taking into account the substantial budget cut experienced at the commencement of the Project.

Building upon and adding value to other initiatives

204. Country hotspot and diagnostic studies during the design phase identified opportunities for the IWRM Project to build on existing and planned activities. The most obvious was the incorporation of the EU policy project as the surrogate for Component 3. However, regional wide collaborations also included forming relationships with the PACC project (Pacific Alliance on Climate Change), where in some countries a common project steering committee was established.
205. At the country level, we heard many examples of where the demonstration projects are working closely with related projects, particularly supported by New Zealand Aid Programme, Australian Aid and JICA. Examples include:
- the relationship between Australian Aid's IWCM project in Vava'u, Tonga and the IWRM work there., including common reporting and liaison with community members to avoid consultation fatigue
 - the co-investment with New Zealand Aid Programme and Australian Aid in the Cook Island's sanitation work, including septic system upgrades
 - the two-way influences between Samoa's *Water For Life* strategy and the IWRM demonstration project work in respect to rolling out related components of *Water for Life*.
206. The catalytic influence of the IWRM Project on national, regional and donor investments is discussed under the relevant section.

Rating: HS

F. Factors affecting performance

Preparation and readiness

207. The preparedness and design factors in the IWRM were dealt with in the TE Inception Report. Most noteworthy in that report's conclusions was the value of the hotspot and diagnostic analyses undertaken for each country leading up to the project design. These lay the foundations for not only putting the UNEP and UNDP Prodocs together, but also in helping each country prepare their equivalent planning documents. SOPAC was able to provide a very

useful guiding role in this process and allowed for continuity between the design and implementation phases of the IWRM Project.

208. The Project's Logframe is one of the more detailed seen by the TE evaluators and the detail was both its strength and weakness. The comprehensive nature of the Logframe ensured that all likely activities to be needed were captured in the design and therefore could be taken into account in workplans and budgets. Where the problem lay was not so much in the Project itself but in the nature of Logframes themselves in that they tend to be linear / sequential in nature. Because many elements of the Project relied upon other elements being in place, i.e. to incorporate indicators into national frameworks requires that national policies that build in such frameworks first be put in place, any delay in one area had a cascading impact on others. In this case, the overly ambitious aspiration of having national IWRM policies in place early in the Project affected the capacity of the indicators framework to be progressed. This resulted in capacity churn in the indicators component that could have been better directed elsewhere. That said, over time, most elements of the Logframe eventually came together; just not within timeframes that were initially guestimates.
209. Responses to specific questions raised in the TE ToRs in respect to preparedness are dealt with in Table 25 in Annex 12. Overall, the response to the ten questions paints a picture of a very meticulously planned project that was consultative in its approach and built on good relationships already established across the PICs and between these and SOPAC. The evaluators found that the overall objectives were feasible over the five year duration of the Project despite the interim milestone targets not all being realistic.

Rating: HS

Project implementation and management

210. The IWRM project followed the course that had been set out for it in the Prodocs. Implementation was well supported and coordinated through SOPAC and the PCU. The role of the PCU in particular was praised by RSC members during interviews. Indeed the interviews suggested that there was a highly functional and rewarding relationship, based on mutual need and respect, in place throughout the life of the Project. It is the view of the TE evaluators that the PCU performed an exemplary and exceptionally role in guiding the IWRM Project to its ultimate success. The professional and personal skills and dedication of the some of the PCU staff was of such a high standard that we judge the Project would have struggled in their absence. This comment was also made by representatives of UNDP at interview.
211. Some RSC members remarked that they would have appreciated greater guidance from and an ongoing liaison with UNEP/UNDP representatives directly, but this was not raised as a major issue of concern. Indeed, where such comments were raised, it was in the context of the desire to replicate the level of support provided by the PCU across all working relationships. As much as anything it was a compliment to the PCU rather than a slight on the UNEP and UNDP representatives. Across the PICs, the role of the UNEP and UNDP was understood and appreciated.
212. A mixed assessment arises in respect to the committee arrangements that were established at the regional and country levels to oversee and advise on project implementation. On the one hand the RSC was viewed as the highlight for many of its members (and non-members) as it provided an essential forum for getting things achieved. In particular it played a strong role in rallying action around particular needs at particular times, such as coordinating a cooperative approach to World Water Day events and preparing various strategies, mid-term and final term reports and the like. Most importantly, the RSC provided the forum for building a strong and

enduring network of national coordinators which add greatly to region wide capacity.

213. On the other hand, the RTAG played a lesser role than some country representatives would have liked particularly in technical support, but the project budget did not allow for this. The Pacific Partnership on Sustainable Water Resource Management was to take the role of RTAG. The Partnership is a virtual partnership, having no funding or regular programme of meetings. To their credit, the PCU greatly expanded the role of the RTAG from that envisaged in the ProDoc, and met eight times during the life of the Project.
214. Responses to specific questions raised in the TE ToRs in respect to implementation and management factors in the IWRM are provided in Table 26 in Annex 12.

Rating: HS

Stakeholder participation and public awareness

215. In summary, communication and engagement strategies were vitally important elements of all project activities, as was the mainstreaming of gender and other social equity considerations within the context of the diverse cultures of the PICs. Extensive stakeholder identification and analysis exercises were undertaken by RSC members in the preparation of stakeholder engagement strategies. In many cases the strategies were taken back to local stakeholders for improvement and endorsement before implementation.
216. To the extent possible, engagement strategies attempted to ensure that all stakeholder groups were represented on either local, regional or national project structures such as committees or APEX bodies. To this end, the stakeholders were essentially treated partners, either through in-kind financial contributions, participation in making decisions and / or participation in implementing activities. Examples of such stakeholder / partner participation included the representation of church or women's groups on such structures. In many cases, however, stakeholders were too diffuse to be partners yet they were critical to the adoption process. The main group of such stakeholders were householders or small family operated businesses such as pig and other smallholder farmers. In the case of householders, these were either reached directly, through partners such as the church and women's groups or through schoolchildren. In the case of the farmers, these were reached either by peers and champions care of their demonstration sites, including dry litter pig pens, or through more formal extension activities organised by the country coordinators.
217. Participation rates and details of engagement activities are outlined in Table 23 in Annex 8. Over the period 2010 through to the second quarter of 2013, 8,550 people had participated in IWRM project events. An important element of information dissemination within all countries was that the information was largely conveyed by citizens, whether local community members, technical specialists or politicians, of the country concerned. O-TV videos were an important element of conveying messages to those communities otherwise hard to reach.
218. A particularly powerful form of engagement has been at the local community level in the oversight of demonstration projects. Community leaders have played a strong role in facilitating the selection of local hosts for activities and have rallied local participation in important events. On several Islands, such as RMI, Tonga and Tuvalu, local community members aspired to convey IWRM messages to outer islands and other communities not so fortunate as to have IWRM activities close at hand. Commitment like this comes from the confidence local people gain from a project's delivery of genuine stakeholder engagement, and on this point the IWRM Project's commitment to local engagement was considered its hallmark by many.

219. Responses to specific questions raised in the TE ToRs in respect to stakeholder and public awareness are provided in Table 27 in Annex 12.

Rating: HS

Country ownership and driven-ness

220. Responses to specific questions raised in the TE ToRs in respect to country ownership are provided in Table 28 in Annex 12. In essence the following quote from the MTR remains the case:

The Pacific IWRM can be considered a good example of national involvement in identifying and designing demonstration projects within a regional framework, resulting in activities that are needed and funded nationally. There have been clear signs of the perceived importance and value of these demonstration projects, and in stakeholder commitment and wish to sustain and expand the work.

221. Overall the short country summaries in Table 28 in Annex 9 suggest that IWRM activities have been country driven and have addressed issues identified in country hotspot and diagnostic analyses. For many countries, the IWRM enabled countries to implement existing agendas that were difficult to pursue without donor assistance, both in finances and expertise. For others it enabled the issue of sustainable water use to get onto the national agenda. Both these points suggest that that ownership is not so high as to translate into national financial commitment. In response, it needs to be acknowledged that participation in IWRM involved some level of national funding commitment. At the very least in countries where there is limited expertise, it involved an opportunity cost in that having an expert dedicate her/his time to IWRM meant that s/he couldn't dedicate to a different issue. In any case, the GDP of many of the islands is such that the remediation actions following the commitment to endorse policies and plans would be prohibitive, particularly where there are other health, education and environmental issues to be dealt with alongside economic growth one. Indeed, this is the very reason why donors commit to supporting PICs, and the endorsed national IWRM plans present to donors a considered priority list of needs from a National perspective.
222. That said, gaining donor funds requires gaining donor confidence, and to this end, many of the participating PICs in the IWRM Project committed to the Project to a good level. The commitment shown by many countries to cross regional activities, such as twinning, is also a sign of excellent Project level ownership.
223. The responses in Table 28 also show that the commitment to both IWRM principles as well as the IWRM project at the local and regional levels was excellent, and this is discussed at length in sections dealing with engagement and up-scaling.

Rating: S

Financial planning and management

224. The IWRM Project was presented with financial challenges through having multiple GEF Implementing Agencies (UNDP and UNEP) and the EU, with different compliance standards in place among the different agencies. The GEF budgets were managed through the PCU while the EU grant was managed through a separate project management unit within SOPAC. This arrangement, while noted in the MTR as being less than optimal, duly worked. SOPAC is an established regional body with extensive experience of managing (technically and financially)

projects funded from bilateral and multilateral donors, and clearly had the necessary financial management capacity to execute the Pacific IWRM Project well.

225. Unlike many GEF investments in projects involving multiple countries, the IWRM Project coordinated national demonstration funding through SOPAC rather than have it go direct to countries through UNOPS. The PCU was adamant that such a process would be necessary to ensure that the PCU had the level of leverage and control to keep the demonstration projects on track and to maximise the opportunity to assist synthesise regional scale lessons. The concern was that direct payment to countries would lessen the motivation for countries to participate in the regional scale activities that ultimately gave the Project its strength, including its capacity building achievements. The PCU also argued that the approach would give the country managers a higher level of ownership and accountability by working with SOPAC. The substantial programme experience of the TE team would support the approach taken.
226. Another effective element of financial management approach that reinforced country manager ownership and accountability was the adoption of transparent annual expenditure results-based performance targets, with RSC-agreed provisions for funds forfeiture for country's not reaching 75% of their targets. The funds forfeited were directed to a reallocation reserve and were available for merit-based reallocation to performing countries and the PCU. The impact of this was to reinforce the need to be diligent in implementation and in processing payments. Many project managers were able to use the threat of a loss of funds to get more efficient financial services from their finance departments.
227. The MTR noted that the UNDP contribution only covered the demonstration work of Component 1 and not its oversight, lessening flexibility to shift funds within the Component to ensure that appropriate capacity would exist in the final two years of the program to maximum regional scale benefits of learning from the Component 1 activities. Ultimately funds were able to be reallocated to ensure that the PCU did not lose capacity in the final two years. Many investment consortia overcome potential problems like this by pooling funds into a global budget rather than component budgets so that all investors have an interest (and say) in overall project administration and management, consistent with the holistic principles of IWRM. This approach would also overcome another issue identified by the MTR, that of the unbalanced approach to financial reporting and discussion at RSC meetings which tended to focus only on the budgets of components 2 and 4.
228. One aspect of financial reporting that has caused angst within the PCU related to audit costs. This issue is about finding a balance between accountability and efficiency. In line with the sentiments of the argument put by the PCU, the TE evaluators recommend that a realistic budget for audit costs be included in the regional R2R project proposal which is now being compiled by SPC-SOPAC. Moreover, we recommend that reasonable thresholds be set that take into account the principle of efficiency when determining whether audits need to be annual or set at an alternative duration.
229. Another issue that brought angst to the PCU and countries alike was the length of time payments took to be processed (often due to the number of organisational hands this went through, from the donors, through to SOPAC, country ministries of finance (in many cases), and finally through to local implementation departments) and the impact that this had on meeting the 80 per cent rule (discussed previously). These issues were resolved but lessons need to be taken into planning arrangements for future initiatives.
230. At the time of preparing early drafts of the TE report, the evaluators had limited access to contemporary financial information, not least in respect to co-investment particularly at the country level. This eventually arrived care of an amalgamated report prepared by the PCU. At

the time of the MTR, it was clear to that evaluator that additional co-financing from national and regional initiatives had been obtained over and above co-investment first mooted. This statement was based on anecdotal statements from interviews. The TE evaluators too heard of such new investments from our interviews, and having good networks with the agencies identified such as Australian Aid and NZ Aid, we know these statements to be true. Upon receipt of the co-investment funding report, we found that co-investment was indeed achieved to an excellent level (approximately \$75 million), but less than first forecast. It appears that the recommendation of the MTR to better track co-investment was indeed achieved, however, the process of planning for R2R at the same time as preparing final reports including financial reports for the IWRM Project delayed presentation of documents important to the TE. The lesson to be taken from this is that projects need to take into account the possibility that adequate project resources may be required to cover concurrent planning and reporting activities during the transition of one initiative into any successor.

Lesson: Several lessons from the IWRM project need to be built into the financial arrangements for future projects, including consideration of centrally coordinated country funding, realistic audit thresholds and scheduling appropriate to project scale, and greater flexibility in carry-over of funds and per-centage expenditure rules. Tracking of co-financing needs to be formalised and readily available. In particular, project design needs to take into account the resources required to adequately complete and report on a project at a time when resources may also be required to plan for a new one.

Rating: S

UNEP and UNDP supervision and backstopping

231. The MTR dealt with this issue at length and the assessment of the TE is not substantially different. The MTR highlighted the role of the UNEP and UNDP and essentially suggested that their supervisory role was arms-length. This view was not only reinforced by UNEP and UNDP representatives at interview, but justified in terms, by the UNDP representative at least, that the Implementation agencies essentially had a strategic role in establishing the project but in the spirit and principle of local ownership leave the management, administrative, coordination and other implementation arrangements to SOPAC and the PCU.
232. Financial supervision for the IWRM project is undertaken by the UNEP Fund Management Officer in Nairobi and by the UNDP Fiji MCO for the national demonstration projects. A significant issue for countries, raised in 2010, concerned a combination of the length of time it took payments to be processed using UNEP's FACE system (sometimes with funds reaching countries in week ten of a quarter) with the "80 per cent rule" which states that *"if at the end of a quarter a country has not acquitted 80% of its funds it will not qualify for a further advance"*. Following negotiation between SOPAC and UNEP, this rule was reduced to 60 per cent.
233. Interviews with the representatives of both UNEP and UNDP showed that both were confident the IWRM Project is delivering transformative results. Indeed, one UNEP representative no longer engaged with the Project was excited that the IWRM has *"bitten the bullet on sanitation and not just water quantity."* To that representative, the transformative change was about shifting the water resource management agenda away from engineering solutions towards more holistic ones. Other representatives were impressed by the level of exchange between countries on issues such as compost toilets, and by their uptake in some countries. Also making a good impression was the capacity of the Project to achieve so much in the communications area despite having this element of the project cut to almost nothing.
234. As noted elsewhere in this report and in the MTR, some country representatives expressed a desire for the UN representatives to be more visible apart from at RSC meetings. The attendance

of GEF Focal Point coordinators at RSC 5 was appreciated and some RSC member interviewees suggested that this should be common practice in future initiatives such as R2R.

235. With respect to the honesty of reporting to UNEP and UNDP, the reporting processes were by and large transparent and coordinated through the PCU. While the evaluators considered the quality of the mid-term reports poor, other reports such as the results notes proved useful in assessing progress. The issue of final reporting is of some concern to the evaluators given that at the time of the TE, no country has finished a final report and most had barely commenced. The concern is less about accountability than it is about the likelihood that as time passes the opportunity will be lost to synthesis and properly analyse lessons beyond simple aggregations of results notes.

Rating: S

Monitoring and evaluation

M&E Design

236. The Prodoc outlined the initial approach to M&E although this evolved during early stages of project implementation. The project M&E framework adopted by the RSC was derived from the original project logframe, with simplified and SMART targets and indicators that align monitoring requirements as much as practical with project activities. The framework was drafted by the RTAG and endorsed at RSC3 (2011). Paper SOPAC/GEF/IWRM/RSC.3/11 presented at the 3rd RSC meeting presents the background to, and development of the project M&E framework. The framework has 34 individual process, stress reduction and environmental status indicators against which the individual country demonstration projects are assessed. Demonstration project results were communicated in the more tradition form of PIR, the more novel form of written country Project Results Notes, and the most influential form of informative and instructive videos. These are available on the GEF Pacific IWRM website.
237. As noted elsewhere, the Logframe provided an excellent basis for monitoring and evaluation. It was comprehensive and the targets and measures meet the SMART criteria for good indicators of performance. With the Hotspot analyses and diagnostic studies having been undertaken, the baselines information was also relatively good. Monitoring and evaluation activities were built into RCS meetings as well as meetings associated with in-country committees, including APEX bodies and Project Steering Committees.
238. Unfortunately at the time of the TE, most countries had not finished preparing their final reports, which would have included valuable M&E data for the TE evaluators. We were, however, able to discuss progress against each PIC's logframe indicators at interview.

Rating: S

Budgeting and funding for M&E

239. The initial Prodoc also specified the various stages of the IWRM Project and the processes that would be taken to ensure that the agreed project schedules and processes would be followed. Responsibilities for M&E actions were defined in the Prodoc and a budget of US\$520,000 excluding staff costs was allocated. As with the MTR it has not been possible for the TE to validate how this budget has been utilized, although accounts suggest that to date \$64,000 has been expended on a budget line allocated to the MTR and TE.
240. The TE evaluators are not concerned that the overall budget dedicated to M&E was sufficient or otherwise as M&E activities as outlined in the Prodoc were largely undertaken.

Rating: S

M&E Plan Implementation

241. At the level of results-based tracking of demonstration project delivery, all demonstration project countries reported annually against an agreed country-relevant subset of the regional project M&E framework, in Performance Indicator Reports (PIR). These reports were the basis for good discussion at RSC plenary and associated workshops. The TE evaluators read several of these country reports and are satisfied that they provided a useful basis not only for project M&E but also for reflection, discussion and lesson sharing between participating PICs.
242. Taking the project M&E framework to the level of results-based tracking of regional Pacific IWRM project delivery the PCU was able to aggregate the country results-based reporting to report against the regional project logframe targets. Regional project results-based reporting has value for reporting to GEF implementing agencies and to participating countries through the RSC, country steering committees and country APEX bodies. Region-to-region sharing and learning of these results occurred through participation and presentations at international IWRM meetings and conferences. Grouping demonstration projects by type (watershed management, wastewater & sanitation, water resources assessment & protection, water use efficiency & safety), made it possible for PCU to aggregate results for each of these groups, providing valuable learning for replication and scaling-up initiatives. An example output that assists group learning is the RSC5 paper Outcomes of Watershed Management Initiatives Supported by the GEF Pacific IWRM Project (SOPAC/GEF/IWRM/RSC.5/4).
243. What has been somewhat disappointing is the, as yet, lack of synthesis of M&E results at the regional level and at the conclusion of the project.

Rating: MS

G. Complementarity with UNEP / UNDP strategies and programmes

Linkage to UNEP's Expected Accomplishments and POWs 2010-2011, 2012-2013

244. The UNEP Medium-term Strategy 2010–2013 identifies six cross-cutting thematic priorities as the focus of its efforts in the period 2010–2013. The Pacific IWRM project encompasses these themes, through the lens of water resource management. In particular, the Pacific IWRM project has made a tangible contribution to the Expected Accomplishments of:
- Disasters and Conflicts theme, building national capacity to minimize threats to human well-being arising from the environmental causes and consequences of disasters (and climate change). For example, the Nadi River Basin Flood Risk Management demonstration project and the Integrated Sustainable Wastewater Management (Ecosan) for Tuvalu demonstration project have both mitigated the acute environmental risks caused by disasters (expected accomplishment).
 - Ecosystem Management theme, facilitating management and restoration of ecosystems in a sustainable manner for socio-economic development. For example, the Rehabilitation and Sustainable Management of the Apia Catchment (Samoa) demonstration project and the Ngerikill Watershed Restoration for Improved Water Quality (Palau) demonstration project have both realigned their environmental programmes and financing to address degradation of selected priority ecosystem services (expected accomplishment).

- Environmental Governance theme, in establishing, implementing and strengthening the necessary processes, institutions, laws, policies and programmes to achieve sustainable development. Component 3 of the Pacific IWRM project supported every country to develop national IWRM and WUE policies, strategies and implementation plans, enabling governments to increasingly implement their environmental obligations and achieve their environmental priority goals, targets and objectives (expected accomplishment).
- Harmful Substances and Hazardous Waste theme, minimising the impact of harmful substances and hazardous waste on the environment and human beings. For example, demonstration projects in RMI, Nauru, Niue and Tonga focused on protecting precious groundwater reserves by reducing or removing sources of contamination such as septic tank effluent, piggery waste and waste oil, have all increased capacities to assess, manage and reduce risks to human health and the environment posed by chemicals and hazardous waste (expected accomplishment).
- Resource Efficiency theme, applying environmentally sound technologies and practices and influencing consumption patterns. For example the demonstration project in Solomon Islands dealt with leak detection and repairs and water use efficiencies, and the many demonstration projects that introduced waterless sanitation systems (compost toilets and dry litter piggeries) have increased resource efficiency and reduced pollution (expected accomplishment).

245. The Pacific IWRM project used an implementation approach consistent with that of the MTS: sound science for decision makers (early warning, monitoring and assessment); awareness-raising, outreach and communications; capacity-building and technology support (Bali Strategic Plan); and cooperation, coordination and partnerships.

Alignment with UNDP Strategic Objectives, Themes and Focus Areas

246. The demonstration component of the Pacific IWRM project contributes to several UNDP strategic themes, particularly climate change and local development. The relevant connection to the climate change theme is helping countries build more resilient societies (e.g. Nadi River Basin Flood Risk Management demonstration project, and the Tuvalu Ecosan demonstration project). The relevant connections to the local development theme are facilitating learning and knowledge sharing (e.g. Regional Steering Committee and the Pacific IWRM website) and strengthening community voices in policy processes (e.g. community awareness programmes, involvement of community members in project steering groups).

247. The demonstration component of the Pacific IWRM project contributes to several UNDP focus areas, particularly water & ocean governance, climate strategies, and gender. The relevant connection to the water & ocean governance focus area is developing capacities implementing integrated approaches to the management of freshwater through promoting more effective governance. The relevant connection to the climate strategies focus area is in strengthening climate information and early warning systems for climate resilient development. The relevant connection to the gender focus area is equitable voice and equitably addressing the needs of both women and men.

Alignment with the Bali Strategic Plan for Technology Support and Capacity-building (BSP)

248. The BSP is an inter-governmentally agreed framework for strengthening the capacity of governments in developing countries and countries with economies in transition to coherently address their needs, priorities and obligations in the field of the environment. The BSP objectives with most connection to the Pacific IWRM project are: to strengthen the capacity of

governments, to provide systematic, targeted, to integrate specific gender-mainstreaming strategies, long and short-term measures for technology support and capacity-building, to enable collaboration with all relevant stakeholders, and to emphasize the identification and dissemination of best practices. Component 4 of the Pacific IWRM project provides a regional capacity building and sustainability programme for IWRM and WUE, including knowledge exchange and learning and replication. The key anticipated outcome of the component is improved institutional and community capacity in IWRM at national and regional levels. The Pacific IWRM project has:

- Built technical and project management capacity in government departments through the demonstration projects;
- Encouraged stakeholder collaboration through the establishment of demonstration project steering committees and the development and implementation of engagement and communications plans;
- Set out to deliver a gender and diversity mainstreaming approach (see Gender section below); and
- Provided technology support, capacity-building and dissemination of best practice through the Regional Steering Committee activities, the post-graduate IWRM qualification, twinning, and the Pacific IWRM website making extensive resource material readily available (see also South-South Cooperation section below).

Gender

249. The IWRM approach is accepted internationally as the way forward for efficient, equitable and sustainable development and management of the world's limited water resources and for coping with conflicting demands. Gender consideration is a component of equity consideration. There is general acceptance that women should play an important role in water management, but bringing this to reality can be a challenge. In line with the Dublin Principle 3, the Pacific IWRM project set out to deliver a gender and diversity mainstreaming approach. Drawing from the RSC5 paper SOPAC/GEF/IWRM/RSC.5/8 *Gender Mainstreaming in the GEF Pacific IWRM Project*:

- The regional project document and logframe outputs and targets identify gender mainstreaming;
- Some guidance on issues related to gender mainstreaming is provided;
- Gender plays a secondary concern to water resource and wastewater management improvements during implementation; and
- At the country level, the majority of countries achieved improvements in gender mainstreaming.

South-South Cooperation

250. South–South Cooperation is a term historically used by policymakers and academics to describe the exchange of resources, technology, and knowledge between developing countries. The intr-regional co-operation fostered in the IWRM project was exceptional at several levels, from on-ground activity such as sharing knowledge and skills between Tuvalu in respect to compost toilets through to regional steering committee arrangements. In addition to documenting and sharing the results of country demonstration projects through the Regional Steering Committee activities, twinning and Pacific IWRM website, the project has also actively engaged with the Caribbean IWCAM project and global events.

V. Conclusions and Recommendations

A. Conclusions

251. The Pacific IWRM project was a highly successful and wide-reaching initiative, improving water resource and wastewater management and water use efficiency in a region that faces significant challenges particularly the fragile nature of the water resources due to the small size of countries, lack of natural storage, competing land use and vulnerability to both natural and human activities. Very limited financial and human resources, and complex governance structures further constrain progress. Nonetheless, the IWRM project has, through its key feature – integration – managed to deliver on a four-component, 13-country project plan to make demonstrable gains in environmental stress reduction, access to safe drinking-water and improved sanitation, and more efficient use of water resources. Furthermore, and informed by the country demonstration projects, it has been able to drive and support the development of IWRM strategies and implementation plans. Through a culture of gathering and sharing lessons, the region-wide engagement and capacity in IWRM from community-to-cabinet has blossomed. This feature has become a hallmark success and significant legacy of the project.
252. On the ground achievements have been made in every participating country, some technical, some infrastructural, and many that reflect social and political change and ownership in line with a common Pacific catch-phrase “Water is everyone’s business”. Composting toilets, far more and in many more countries than anticipated have been skilfully introduced to communities, and the benefits to environmental protection and water demand are obvious. Communities talk about IWRM; they “*get it now*”, and they want to share their knowledge with outer island communities.
253. Would the change have happened without the Pacific IWRM project? To a degree and probably over time, but the project has been able to catalyse ownership of the problems and the solution (IWRM) to the point of taking action and seeing results in just a short five-years. We acknowledge that globally IWRM has been developing for some years, so IWRM is nothing new in itself. Even in the Pacific, IWRM has been talked about since the early 2000s, and in more recent years some countries have adopted and formalised the IWRM approach in water sector strategies and plans. However, the Pacific IWRM project has provided the critical mass of thinking on IWRM in practice by taking advantage of learning from other regions that started before the Pacific, and by crafting a project that had at its heart a learning-by-doing approach coupled with a mechanism of gathering and sharing lessons and building collective regional capacity. The evaluators believe it was this repeated practice-reflect-adapt active learning cycle that has been the catalytic spark for project achievements. This is what the Pacific IWRM project has been able to do that would not have otherwise happened.

Table 15: Evaluation ratings

Criterion	Rating	Summary Assessment
A. Strategic relevance	Highly satisfactory	<i>The conceptualisation and focus of the Pacific IWRM project ticks national, regional and international needs and priorities.</i>
B. Achievement of outputs	Satisfactory	<i>Achievement against demonstration project outputs and policy/governance outputs were satisfactory. There is still room to progress in lifting targets and indicators up above project-level. Achievement against capability building and sustainability was highly satisfactory.</i>

Criterion	Rating	Summary Assessment
C. Effectiveness: Attainment of project objectives and results	Satisfactory	<i>With demonstrable achievement of project objectives and direct outcomes, and a HL assessment of impact, the legacy of the project looks strong. The work of the IWRM has been catalytic. A mostly qualitative assessment shows that the project will, and already has to some extent, achieved its objective of improving natural resource and environmental management in the Pacific.</i>
1. Achievement of direct outcomes	Satisfactory	
2. Likelihood of impact	Highly likely	
3. Achievement of goal & objectives	Satisfactory–Highly satisfactory	
D. Sustainability and replication	Likely³	<i>The prospect for sustainability and replication are good thanks to already securing necessary finances to implement plans, awareness and ownership particularly at the community/catchment level, establishment of strong national and local governance structures, and environmental factors that could impact on sustainable benefits have been considered and mitigated to the extent possible.</i>
1. Financial	Likely	
2. Socio-political	Likely	
3. Institutional framework	Likely	
4. Environmental	Likely	
Catalytic role and replication	Highly satisfactory	<i>The project has been highly catalytic in changing community practice, triggering replication and scale-up, triggering integrated government policy and securing donor funding.</i>
E. Efficiency	Highly satisfactory	<i>From an efficiency perspective, the level of expenditure, together with the level of achievement across all four components represents efficient use of funds, even more so taking into account the substantial budget cut experienced at the commencement of the project.</i>
F. Factors affecting project performance	-	<i>In considering the many factors that can affect project performance, the evaluation found that preparedness and readiness, project implementation and management, and stakeholder participation and public awareness very much enabled performance. Country ownership and driven-ness was satisfactory, varying in degree of local and national commitment. M&E design and implementation was satisfactory, and pleasing to see the improved capacity at country-level over the life of the project. UNEP/UNDP supervision and backstopping was essentially a strategic role in establishing the project.</i>
1. Preparation and readiness	Highly satisfactory	
2. Project implementation and management	Highly satisfactory	
3. Stakeholders participation and public awareness	Highly satisfactory	
4. Country ownership and driven-ness	Satisfactory	
5. Financial planning and management	Satisfactory	
6. UNEP & UNDP supervision and backstopping	Satisfactory	
7. Monitoring and evaluation	Satisfactory	

³ According to the GEF Office of Evaluation, all dimensions of sustainability are deemed critical. Therefore the overall rating is the lowest rating on the separate dimensions

Criterion	Rating	Summary Assessment
a. M&E Design	Satisfactory	
b. Budgeting and funding for M&E activities	Satisfactory	
c. M&E plan Implementation	Moderately Satisfactory	
Overall project rating	Satisfactory– Highly satisfactory	

B. Lessons Learned

254. We consider two types of lessons learned, those that describe what went well and needs to continue in future projects, and those that describe what did not go so well and needs to improve. In each lesson we outline what the lesson was, why it is important or where it is useful, outline the key enabling or hindrance factors to success, and link the lesson to the recommendations that will contribute to sustaining the lesson.
255. **Lesson 1: Engagement:** This was a hallmark success of the project, at regional, national and community levels, and an essential element of any integration project. Effective engagement is a powerful enabler of building awareness, understanding and capacity, fostering ownership, seeking agreement, rallying and coordinating action, demonstrating success, providing accountability and eliciting financial support. In the Pacific IWRM project, effective engagement was enabled by (i) the planning and leading-by-example actions of the PCU, (ii) the RSC model, and (iii) taking cultural considerations into account and emphasising personal relationships and conveyance of information rather than non-personal electronic and written forms of conveyance. The specific lesson for future projects of this scale is to ensure that PCUs have the process of engagement strongly written into their terms of reference so that they lead by example. Indeed, the capacity to demonstrate leadership through engagement should be a criteria for the selection of a PCU. This process then needs to be replicated at the country level through similar but culturally and technically contextualised terms of reference for country coordinators, who should again set the example for the next tier of activity implementers. The process of engagement should focus on both outreach and inreach, ensuring engagement is not just intended to stimulate action among external stakeholders (outreach), but also improve the actions and processes of those within the partnership (inreach). Communication and engagement strategies should adequately and explicitly address outreach and inreach. Recommendations 1–3 contribute to sustaining Lesson 1.
256. **Lesson 2: Adding value by building off other work:** The value of the country diagnostic reports and hotspot analyses in designing the demonstration projects has been highlighted in this TE report. Similarly, building off the endorsed Pacific Regional Action Plan for Sustainable Water Management gave credibility and direction to the regional project. We heard of the two-way benefits of connecting the demonstration projects with national strategy/plans, the projects providing a means to deliver on national plans, and the national plans ensuring high-level support for the project. Projecting forward to post-demonstration projects, the articulated successes of the demonstration projects become the springboards or catalysts, starting the added-value cycle again. For future projects, countries need to be actively creating the catalytic environment. This requires having the right information to communicate, and engaging with and influencing important stakeholders, in particular water APEX bodies, donors and community. Sometimes building upon others' initiatives rather than

establishing one's own new ones requires a certain level of institutional maturity and ability to drop institutional egos. This needs to be explicitly dealt with in project formulation to the point where if existing relevant activities are not built upon, adequate justification needs to be provided to the partners concerned. Recommendations 2, 4 and 5 contribute to sustaining Lesson 2.

257. **Lesson 3: Country capacity:** The project has developed a group of competent IWRM advisors and well-connected project managers, and has improved the competencies of government agency operations staff and community. This is a recognised achievement of the project. Unfortunately, the knife-edge of success is that with increased competency comes increased career opportunity. Retention of experienced and competent people is a significant issue for the Pacific. What is important for sustainability is to (i) provide some form of incentive to encourage these people to stay, and/or (ii) build sufficient networks to make sure the competencies required are accessible, even if not on-staff. There is no better training than on-the-job training and so planning for future projects should attempt to establish teams that involve leaders with experience and those who show potential to be the next generation of leaders. Recommendations 1 and 6 contribute to sustaining Lesson 3.
258. **Lesson 4: Synthesis:** One of the empowering and enduring features of an initiative such as the IWRM Project is its potential to draw lessons together from a synthesis across different components and locations. In some cases, the diversity of activity can help define which principles and activities are easily transferable while in other cases it can help nuance what can be replicated under what circumstances. Regional activities can easily be well intentioned but not adequately seen through due to the busy-ness taken up by the individual components, particularly at the final stages of initiatives that coincide with the planning activities for subsequent projects. It is therefore important to plan and budget for synthesis activity in such a way that it becomes an essential and accountable part of large complex initiatives. Recommendation 1 and 2 contributes to sustaining Lesson 4.
259. **Lesson 5: Financial management:** Complex programs with multiple funding partners, implementing agencies and country partnerships will often in and of themselves demand complex administrative arrangements. These arrangements however need to balance efficiency with effectiveness and take into account the nature of adaptive management that make projects like the IWRM Project successful. Several lessons from the IWRM project need to be built into the financial arrangements of future projects, including consideration of centrally coordinated country funding, realistic audit thresholds and scheduling appropriate to project scale, and greater flexibility in carry-over of funds and per-centage expenditure rules. Tracking of co-financing needs to be formalised and more readily available.

C. Recommendations

260. The following recommendations take into account UNEP evaluation guidelines which emphasise the need for recommendations to be actionable by the UNEP. For this reason, where the TE evaluators' recommendations address matters concerning future initiatives that do not involve UNEP, we have phrased these such that the UNEP action we seek is to convey these lessons to the appropriate agencies concerned.
261. **Recommendation 1: Regional Steering Committee:**

Preliminary comment: We heard many times that engagement was the hallmark of the Pacific IWRM project. The highlight of engagement for the TE evaluators was the Regional Steering Committee (RSC) process. RSC was pivotal to the success of the project, with a strong sense of ownership by the countries. It provided a strong regional network for knowledge and

experience sharing, collaboration and encouragement. Furthermore, we saw evidence of the value added to the RSC process and flow-on integration-value at the country level of including country GEF focal points at RSC annual meetings, and encourage this to be accommodated in future regional GEF projects. The IWRM RSC process is a model that worked particularly well in the cultural context of the Pacific, and is desperately in need of replication across other complex projects. Refer s.IV Evaluation Findings, B. Achievement of outputs, Component 4, and Annex 8.

Recommendations

UNEP and UNDP:

- 1a. The UNEP and UNDP should prepare an Experience Note based to the extent possible on the IWRM Project model. The Note should include advice on adequate budgeting and support to ensure steering committees are effective.

UNEP specific:

- 1b. To help facilitate replication and as an input into the Note (Recommendation 1a), the UNEP should ask the PCU to provide a normative and prescriptive description of the IWRM Project RSC process that can be provided as RSC formation and management guidelines to future project planners. This could be provided as an Annex to the IWRM Project Final report.

262. Recommendation 2: Reporting results:

Preliminary comment: Regionally compiled and synthesized country results against the project-level indicators framework were not available at the time of preparing this evaluation, despite having developed numerous templates for gathering country-level data. This resulted in the evaluation of planned objectives at country and regional levels being a qualitative evaluation. Furthermore, if not compiled and synthesized, the regional-level progress towards lower-order outcomes that was intended to inform intergovernmental agency programmes such as the MDG attainment, and influence donor investment, is lost. The development sector is in desperate need evidenced-based practice, which the Pacific IWRM project provides. The development sector often needs to seek support from the science sector to confirm status and progress, but the science sector lacks grounded information on the current situation. Refer s.IV Evaluation Findings, A. Strategic relevance & B. Achievement of outputs, Component 1 & Component 2, and E. Efficiency, Timeliness.

Recommendation

UNEP and UNDP:

- 2a. To help ensure adequate resources are provided to underpin regional synthesis of multi-country activities and that these activities are tied to accountable milestones, the UNEP and UNDP should prepare an Experience Note for adoption by future projects of similar nature to the IWRM project.

UNEP specific:

- 2b. The UNEP should ensure that the PCU completes the activity of compiling the regional indicator results and makes available the findings to regional tracking programmes and donors.
- 2c. The UNEP should encourage the PCU and countries to write up some aspects of their work for other audiences as appropriate in science and development sector publications. UNESCO could be a possible publisher and funder of a specific edition of the Pacific IWRM story about engagement, environmental and health science, practice and policy.

263. **Recommendation 3: Planned and implemented exit strategy:**

Preliminary comment: An important part of promoting sustainable outcomes is planning for the end of a project, known as an "exit strategy". As evaluators, we have not seen or heard of an exit strategy at either regional-level or country-level. Experience shows the sustainability of a project is improved if support is reduced gradually as the local capacity and capability increases. Our primary concern with the apparent lack of exit strategies at the project level, particularly where the demonstration project was situated in a local community with a local steering committee, is the fall off in local interest we have already observed without the prompting, motivation and support of the IWRM project manager.

Recommendation

UNEP and UNDP:

- 3a. The UNEP and UNDP should prepare an Experience Note for adoption by future projects of similar nature to the IWRM project to ensure that future project designs include a stage at which exit strategies are prepared for all relevant components of an initiative. Exit strategies should be incorporated into the Prodoc for short-term projects or built in as a planned step/milestone in Prodocs for longer-term projects.

264. **Recommendation 4: Grounded targets and appropriate indicators:**

Preliminary comment: The TE evaluators noted that many countries seemed not to be collecting the necessary data to report on their anticipated results. Two aspects were illustrated, inappropriate targets and ineffective monitoring programmes. The issue with targets related particularly to pilot or trial technologies and the setting of somewhat generic targets irrespective of the technology and land type it was to be applied. The issue with monitoring programmes was that protecting or improving public health was repeatedly mentioned as a desired outcome, however, the most important indicator for public health, pathogen indicator microorganisms *E.coli* or coliforms, was rarely mentioned in monitoring programmes or for tracking performance. There was also little evidence of doing anything with whatever data was collected.

Where UNEP and UNDP support regionally based activities with some element of health and sanitation involved, they should consider the inclusion of the following elements into the project design:

- Provide practical training in water quality monitoring programme design and data interpretation;
- Strengthen the country-level capability and capacity to carry out basic microbiological water quality tests, importantly at the location of projects since there are strict time limits between sample collection and analysis;
- Make available expert support to countries to assist with or review programme design and data interpretation;
- Include pathogens/indicator microorganism targets in results-based indicator frameworks for all human-use waters (drinking-water and recreational waters);
- Include more critical thought by people with appropriate local and technical knowledge when setting targets for effectiveness of pilot or trial technologies.

Refer s.IV Evaluation Findings, B. Achievement of outputs, Component 1 & Component 2, and Annexes 5 & 6.

Recommendation

UNDP specific:

- 4a. The PCU of the new R2R initiative should write to National health bodies of participating

PICs to discuss the opportunity for co-investing in relevant indicators monitoring and analysis (i.e. pathogens) at a relatively low cost by building on related monitoring activities to be established as part of R2R.

265. **Recommendation 5: Functional roles for coordinating bodies:**

Preliminary comment: At the start of the project, most countries had some form of water APEX body, but many were inactive, coming to life to fulfil a governance role for the demonstration project. In a few cases these bodies, together with community scale bodies, solely focussed on the implementation of the IWRM project, sometimes to the detriment of forming relationships with related activities where synergies and efficiencies could be created and knowledge, experience and lessons could be shared. With the move towards implementing IWRM plans, and the many projects that will proliferate, many of the APEX and other IWRM bodies are taking on more of a national or holistic functional role, providing governance to the implementation of national or regional / local strategies and plans. Bodies that limit their focus to single project oversight are ultimately not consistent with principles of IWRM, will struggle to gain timely cooperation from critical players and will likely not exist beyond the life of the project, hence reducing opportunities to build on diverse experience and lessons learned.. Refer s.IV Evaluation Findings, D. Sustainability and replication.

Recommendations

UNEP specific:

- 5a. UNEP should prepare an Experience Note providing guidance on what makes a good APEX body, based on the experience of the IWRM project.

UNDP specific:

- 5b. The UNDP should, through SOPAC, recommend to PICs participating in R2R to review the role of their APEX bodies to ensure their Terms of Reference include a functional role relating to the broader oversight and networking of water activity and not just R2R project oversight.

266. **Recommendation 6: Retention of capacity:**

Preliminary comment: The project has developed a group of competent IWRM advisors and well-connected project managers. This is a recognised achievement of the project. Unfortunately, the knife-edge of success is that with increased competency comes increased career opportunity. Retention of experienced and competent people is a significant issue for the Pacific. During our interviews, we heard of several people who had moved out of the IWRM project to fulfil career aspirations. We heard of others who were considering options to progress their careers. What is important for sustainability is to (i) provide some form of incentive to encourage these people to stay, and/or (ii) build sufficient networks to make sure the competencies required are accessible, even if not on-staff. Refer s.IV Evaluation Findings, B. Achievement of outputs, Component 4, and Annex 8.

Recommendations

UNDP specific:

- 6a. The UNDP should ask the R2R PCU to provide a regional level assessment of the needs and options for a programme to foster retention of the IWRM and project management competencies needed in the Pacific, particularly in the context of implementing the R2R initiative.

Annexes

- Annex 1. Evaluation Terms of Reference
- Annex 2. Evaluation interview schedule
- Annex 3. Interview questions
- Annex 4. IWRM Project partnerships
- Annex 5. Component Evaluation: Demonstration projects
- Annex 6. Component Evaluation: Indicator framework
- Annex 7. Component Evaluation: Policy
- Annex 8. Component Evaluation: Engagement (incl gender & equity) and capacity building
- Annex 9. Attainment of demonstration project objectives (components and performance indicators)
- Annex 10. Comprehensive Theory of Change for the Pacific IWRM Project
- Annex 11: Evaluator's assessment against project targets and performance indicators
- Annex 12. Responses to Evaluation questions in respect of factors affecting performance
- Annex 13. WRM Project response to its Mid Term Review
- Annex 14. Co-financial arrangements
- Annex 15: References
- Annex 16: Evaluator Biographical summaries
- Annex 17: Evaluator's responses to evaluation feedback

Annex 1: Evaluation Terms of Reference

Objective and Scope of the Evaluation

In line with the UNEP Evaluation Policy⁴, the UNDP Evaluation Policy⁵, the UNEP Evaluation Manual⁶ and the Guidelines for GEF Agencies in Conducting Terminal Evaluations⁷, the Terminal Evaluation of the Project *“Implementing sustainable water resources and wastewater management in Pacific Island countries”* is undertaken after completion of the project to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP, UNDP the GEF and their executing partner –SOPAC and the relevant agencies of the project participating countries. Therefore, the evaluation will identify lessons of operational relevance for future project formulation and implementation. It will focus on the following sets of key questions, based on the project’s intended outcomes, which may be expanded by the consultants as deemed appropriate:

- (a) To what extent has the project contributed towards improved water resources management, water use efficiency and waste water management in the Pacific Island Countries? Are the necessary steps in place to reach the higher level results?
- (b) Were the demonstration projects useful in terms of generating practical lessons that have the capacity to be mainstreamed into existing local, national and regional approaches? To what extent have lessons been mainstreamed? Did the project put in place the necessary drivers to mainstream lessons?
- (c) Was the developed IWRM and WUE indicator framework practical and useful in improving IWRM and WUE planning and programming? If applied, does it have the potential to enable better monitoring of environmental impacts and further improved IWRM and WUE planning? To what extent was the framework adopted at the national and regional levels? Were the measures taken by the project adequate in order to support and promote the adoption of the framework, especially since the MTR recommended that this should be strengthened?
- (d) Was the project successful in contributing towards institutional change in the participating countries in terms of enacting National IWRM plans and WUE strategies? Did the project set in place the necessary structures that promote the endorsement of IWRM policies within the Pacific – region? To what extent can the change be attributed to the IWRM-Pacific project?
- (e) Is there evidence that institutional and community capacity in IWRM at national and regional levels in the Pacific has improved during the project period? To what extent can the change be attributed to the IWRM-Pacific project?

⁴ <http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationPolicy/tabid/3050/language/en-US/Default.aspx>

⁵ <http://web.undp.org/evaluation/documents/Evaluation-Policy.pdf>

⁶ <http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationManual/tabid/2314/language/en-US/Default.aspx>

⁷ http://www.thegef.org/gef/sites/thegef.org/files/documents/TE_guidelines7-31.pdf

Overall Approach and Methods

The Terminal Evaluation of the Project *“Implementing sustainable water resources and wastewater management in Pacific Island countries”* will be conducted by independent consultants under the overall responsibility and management of the UNEP Evaluation Office (Nairobi), in consultation with the UNEP GEF Coordination Office (Nairobi), the UNDP Regional Technical Advisor – RTA- in Bangkok and the UNEP Task Manager(S) at UNEP/DEPI (Washington and Nairobi).

It will be an in-depth evaluation using a participatory approach whereby key stakeholders are kept informed and consulted throughout the evaluation process. Both quantitative and qualitative evaluation methods will be used to determine project achievements against the expected outputs, outcomes and impacts.

The findings of the evaluation will be based on the following:

- (a) A **desk review** of project documents and others including, but not limited to:
 - Relevant background documentation, inter alia UNEP, UNDP and GEF policies, strategies and programmes pertaining to sustainable water resources management, wastewater management and IWRM;
 - Project design documents; Annual Work Plans and Budgets or equivalent, revisions to the logical framework and project financing;
 - Project reports such as progress and financial reports from the executing partners to the Project Management Unit (PMU) and from the PMU to UNEP and UNDP; Steering Group meeting minutes; annual Project Implementation Reviews, GEF Tracking Tools and relevant correspondence;
 - Project Mid-Term Review (June 2012) and Audit report (December 2011);
 - Documentation related to project outputs;
 - Review of media articles concerning the IWRM – Pacific project, including project website.
- (b) **Interviews with:**
 - Project management and execution support at SOPAC, Suva, Fiji;
 - National Project Managers and National Project Assistants;
 - Members of the Regional Project Steering Committee and National Steering Committees;
 - Members of the Regional Technical Advisory Group;
 - UNEP Task Manager and Fund Management Officer (Washington & Nairobi);
 - UNDP RTA;
 - Relevant authorities in the participating countries;
 - Relevant staff of GEF Secretariat; and
 - Representatives of other multilateral agencies and other relevant organisations.
 - UNDP Fiji country office relevant staff

- (c) **Country visits.** The evaluation team will participate in the 5th Regional Steering Committee meeting in Fiji from 11-15 November 2013 and visit selected project countries (The Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu). The countries will be selected in consultation with the UNEP Evaluation Office, the project Implementing and Executing Agencies and the evaluation team.

Key Evaluation principles

Evaluation findings and judgements should be based on **sound evidence and analysis**, clearly documented in the evaluation report. Information will be triangulated (i.e. verified from different sources) to the extent possible, and when verification is not possible, the single source will be mentioned. Analysis leading to evaluative judgements should always be clearly spelled out.

The evaluation will assess the project with respect to **a minimum set of evaluation criteria** grouped in four categories:

- (1) Attainment of objectives and planned results, which comprises the assessment of outputs achieved, relevance, effectiveness and efficiency and the review of outcomes towards impacts;
- (2) Sustainability and catalytic role, which focuses on financial, socio-political, institutional and ecological factors conditioning sustainability of project outcomes, and also assesses efforts and achievements in terms of replication and up-scaling of project lessons and good practices;
- (3) Processes affecting attainment of project results, which covers project preparation and readiness, implementation approach and management, stakeholder participation and public awareness, country ownership/driven-ness, project finance, UNEP / UNDP supervision and backstopping, and project monitoring and evaluation systems; and
- (4) Complementarity with the UNEP and UNDP strategies and programmes. The evaluation consultants can propose other evaluation criteria as deemed appropriate.

Ratings. All evaluation criteria will be rated on a six-point scale. However, complementarity of the project with the UNEP / UNDP strategies and programmes is not rated. Annex 2 provides detailed guidance on how the different criteria should be rated and how ratings should be aggregated for the different evaluation criterion categories.

In attempting to attribute any outcomes and impacts to the project, the evaluators should consider the difference between *what has happened with and what would have happened without the project*. This implies that there should be consideration of the baseline conditions and trends in relation to the intended project outcomes and impacts. This also means that there should be plausible evidence to attribute such outcomes and impacts to the actions of the project. Sometimes, adequate information on baseline conditions and trends is lacking. In such cases this should be clearly highlighted by the evaluators, along with any simplifying assumptions that were taken to enable the evaluator to make informed judgements about project performance.

As this is a terminal evaluation, particular attention should be given to learning from the experience. Therefore, the “Why?” question should be at front of the consultants’ minds all through the

evaluation exercise. This means that the consultants need to go beyond the assessment of “*what*” the project performance was, and make a serious effort to provide a deeper understanding of “*why*” the performance was as it was, i.e. of processes affecting attainment of project results (criteria under category 3). This should provide the basis for the lessons that can be drawn from the project. In fact, the usefulness of the evaluation will be determined to a large extent by the capacity of the consultants to explain “*why things happened*” as they happened and are likely to evolve in this or that direction, which goes well beyond the mere review of “*where things stand*” today.

Evaluation criteria

A: Strategic relevance

The evaluation will assess, in retrospect, whether the project’s objectives and implementation strategies were consistent with: i) Sub-regional environmental issues and needs; ii) the UNEP / UNDP mandate and policies at the time of design and implementation; and iii) the GEF Climate Change focal area, strategic priorities and operational programme(s).

It will also assess whether the project objectives were realistic, given the time and budget allocated to the project, the baseline situation and the institutional context in which the project was to operate.

B: Achievement of Outputs

The evaluation will assess, for each component, the project’s success in producing the programmed results as presented in Table 2 above, both in quantity and quality, as well as their usefulness and timeliness. Briefly explain the degree of success of the project in achieving its different outputs, cross-referencing as needed to more detailed explanations provided under Section F (which covers the processes affecting attainment of project objectives). The achievements under the regional and national demonstration projects will receive particular attention.

C: Effectiveness: Attainment of Objectives and Planned Results

The evaluation will assess the extent to which the project’s objectives were effectively achieved or are expected to be achieved.

The evaluation will reconstruct the Theory of Change (ToC) of the project based on a review of project documentation and stakeholder interviews. The ToC of a project depicts the causal pathways from project outputs (goods and services delivered by the project) over outcomes (changes resulting from the use made by key stakeholders of project outputs) towards impact (changes in environmental benefits and living conditions). The ToC will also depict any intermediate changes required between project outcomes and impact, called intermediate states. The ToC further defines the external factors that influence change along the pathways, whether one result can lead to the next. These external factors are either drivers (when the project has a certain level of control) or assumptions (when the project has no control).

The assessment of effectiveness will be structured in three sub-sections:

- (a) Evaluation of the **achievement of direct outcomes as defined in the reconstructed ToC**. These are the first-level outcomes expected to be achieved as an immediate result of project outputs.

- (b) Assessment of the **likelihood of impact** using a *Review of Outcomes to Impacts* (ROtI) approach as summarized in Annex 6 of the TORs. Appreciate to what extent the project has to date contributed, and is likely in the future to further contribute to changes in stakeholder behaviour as a result of the project's direct outcomes, and the likelihood of those changes in turn leading to changes in the natural resource base, benefits derived from the environment and human living conditions.
- (c) Evaluation of the **achievement of the formal project overall objective, overall purpose, goals and component outcomes** using the project's own results statements as presented in original logframe (see Table 2 above) and any later versions of the logframe. This sub-section will refer back where applicable to sub-sections (a) and (b) to avoid repetition in the report. To measure achievement, the evaluation will use as much as appropriate the indicators for achievement proposed in the Logical Framework Matrix (Logframe) of the project, adding other relevant indicators as appropriate. Briefly explain what factors affected the project's success in achieving its objectives, cross-referencing as needed to more detailed explanations provided under Section F.

There are some effectiveness questions of specific interest which the evaluation should certainly consider:

D. Sustainability and replication

Sustainability is understood as the probability of continued long-term project-derived results and impacts after the external project funding and assistance ends. The evaluation will identify and assess the key conditions or factors that are likely to undermine or contribute to the persistence of benefits. Some of these factors might be direct results of the project while others will include contextual circumstances or developments that are not under control of the project but that may condition sustainability of benefits. The evaluation should ascertain to what extent follow-up work has been initiated and how project results will be sustained and enhanced over time. The reconstructed ToC will assist in the evaluation of sustainability.

Four aspects of sustainability will be addressed:

- (a) *Socio-political sustainability.* Are there any social or political factors that may influence positively or negatively the sustenance of project results and progress towards impacts? Is the level of ownership by the main national and regional stakeholders sufficient to allow for the project results to be sustained? Are there sufficient government and stakeholder awareness, interests, commitment and incentives to execute, enforce and pursue the programmes, plans, agreements, monitoring systems etc. prepared and agreed upon under the project?
- (b) *Financial resources.* To what extent are the continuation of project results and the eventual impact of the project dependent on continued financial support? What is the likelihood that adequate financial resources⁸ will be or will become available to implement the programmes, plans, agreements, monitoring systems etc. prepared and agreed upon under

⁸ Those resources can be from multiple sources, such as the public and private sectors, income generating activities, other development projects etc.

the project? Are there any financial risks that may jeopardize sustenance of project results and onward progress towards impact?

- (c) *Institutional framework.* To what extent is the sustenance of the results and onward progress towards impact dependent on issues relating to institutional frameworks and governance? How robust are the institutional achievements such as governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. required to sustaining project results and to lead those to impact on human behaviour and environmental resources?
- (d) *Environmental sustainability.* Are there any environmental factors, positive or negative, that can influence the future flow of project benefits? Are there any project outputs or higher level results that are likely to affect the environment, which, in turn, might affect sustainability of project benefits? Are there any foreseeable negative environmental impacts that may occur as the project results are being up-scaled?

Catalytic role and replication. The *catalytic role* of GEF-funded interventions is embodied in their approach of supporting the creation of an enabling environment and of investing in pilot activities which are innovative and showing how new approaches can work. UNEP and the GEF also aim to support activities that upscale new approaches to a national, regional or global level, with a view to achieve sustainable global environmental benefits. The evaluation will assess the catalytic role played by this project, namely to what extent the project has:

- (a) *catalysed behavioural changes* in terms of use and application by the relevant stakeholders of: i) technologies and approaches show-cased by the demonstration projects; ii) strategic programmes and plans developed; and iii) assessment, monitoring and management systems established;
- (b) provided *incentives* (social, economic, market based, competencies etc.) to contribute to catalysing changes in stakeholder behaviour;
- (c) contributed to *institutional changes*. An important aspect of the catalytic role of the project is its contribution to institutional uptake or mainstreaming of project-piloted approaches in the regional and national demonstration projects;
- (d) contributed to *policy changes* (on paper and in implementation of policy);
- (e) contributed to sustained follow-on financing (*catalytic financing*) from Governments, the GEF or other donors;
- (f) created opportunities for particular individuals or institutions ("*champions*") to catalyse change (without which the project would not have achieved all of its results).

Replication, in the context of GEF projects, is defined as lessons and experiences coming out of the project that are replicated (experiences are repeated and lessons applied in different geographic areas) or scaled up (experiences are repeated and lessons applied in the same geographic area but on a much larger scale and funded by other sources). The evaluation will assess the approach adopted by the project to promote replication effects and appreciate to what extent actual replication has already occurred or is likely to occur in the near future. What are the factors that may influence replication and scaling up of project experiences and lessons?

E: Efficiency

The evaluation will assess the cost-effectiveness and timeliness of project execution. It will describe any cost- or time-saving measures put in place in attempting to bring the project as far as possible in achieving its results within its programmed budget and (extended) time. It will also analyse how delays, if any, have affected project execution, costs and effectiveness. Wherever possible, costs and time over results ratios of the project will be compared with that of other similar interventions. The evaluation will give special attention to efforts by the project teams to make use of/build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. to increase project efficiency.

F: Factors and processes affecting project performance

Preparation and readiness. This criterion focusses on the quality of project design and preparation. Were project stakeholders⁹ adequately identified? Were the project's objectives and components clear, practicable and feasible within its timeframe? Were the capacities of executing agencies properly considered when the project was designed? Was the project document clear and realistic to enable effective and efficient implementation? Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to project implementation? Were counterpart resources (funding, staff, and facilities) and enabling legislation assured? Were adequate project management arrangements in place? Were lessons from other relevant projects properly incorporated in the project design? What factors influenced the quality-at-entry of the project design, choice of partners, allocation of financial resources etc.? Were GEF environmental and social safeguards considered when the project was designed¹⁰?

Project implementation and management. This includes an analysis of implementation approaches used by the project, its management framework, the project's adaptation to changing conditions (adaptive management), the performance of the implementation arrangements and partnerships, relevance of changes in project design, and overall performance of project management. The evaluation will:

- (a) Ascertain to what extent the project implementation mechanisms outlined in the project document have been followed and were effective in delivering project outputs and outcomes. Were pertinent adaptations made to the approaches originally proposed?
- (b) Evaluate the effectiveness and efficiency of project management by SOPAC and how well the management was able to adapt to changes during the life of the project.
- (c) Assess the role and performance of the units and committees established and the project execution arrangements at all levels.
- (d) Assess the extent to which project management responded to direction and guidance provided by the Steering Committee and UNEP / UNDP supervision recommendations.
- (e) Identify operational and political / institutional problems and constraints that influenced the effective implementation of the project, and how the project partners tried to overcome

⁹ Stakeholders are the individuals, groups, institutions, or other bodies that have an interest or stake in the outcome of the project. The term also applies to those potentially adversely affected by the project.

¹⁰ <http://www.thegef.org/gef/node/4562>

these problems. How did the relationship between the project management team (SOPAC) and the national teams develop?

- (f) Assess the extent to which MTR recommendations were followed in a timely manner.
- (g) Assess the extent to which the project implementation met GEF environmental and social safeguards requirements.

Stakeholder participation and public awareness. The term stakeholder should be considered in the broadest sense, encompassing project partners, government institutions, private interest groups, local communities etc. The ToC analysis should assist the evaluators in identifying the key stakeholders and their respective roles, capabilities and motivations in each step of the causal pathway from activities to achievement of outputs and outcomes to impact. The assessment will look at three related and often overlapping processes: (1) information dissemination between stakeholders, (2) consultation between stakeholders, and (3) active engagement of stakeholders in project decision making and activities. The evaluation will specifically assess:

- (a) the approach(es) used to identify and engage stakeholders in project design and implementation. What were the strengths and weaknesses of these approaches with respect to the project's objectives and the stakeholders' motivations and capacities? What was the achieved degree and effectiveness of collaboration and interactions between the various project partners and stakeholders during design and implementation of the project?
- (b) the degree and effectiveness of any public awareness activities that were undertaken during the course of implementation of the project; or that are built into the assessment methods so that public awareness can be raised at the time the assessments will be conducted;
- (c) how the results of the project (strategic programmes and plans, monitoring and management systems, sub-regional agreements etc.) promote participation of stakeholders, including users, in decision making in the transport sector.

Country ownership and driven-ness. The evaluation will assess the performance of government agencies involved in the project in The Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu:

- (a) How far have the Governments assumed responsibility for the project and provided adequate support to project execution, including the degree of cooperation received from the various public institutions involved in the project and the timeliness of provision of counter-part funding to project activities?
- (b) To what extent has the political and institutional framework of the participating countries been conducive to project performance?
- (c) To what extent have the public entities promoted the participation of transport facility users and their non-governmental organisations in the project?
- (d) How responsive were the government partners to SOPAC coordination and guidance, and to UNEP / UNDP supervision?

Financial planning and management. Evaluation of financial planning requires assessment of the quality and effectiveness of financial planning and control of financial resources throughout the project's lifetime. The assessment will look at actual project costs by activities compared to budget (variances), financial management (including disbursement issues), and co-financing. The evaluation will:

- (a) Verify the application of proper standards (clarity, transparency, audit etc.) and timeliness of financial planning, management and reporting to ensure that sufficient and timely financial resources were available to the project and its partners;
- (b) Appreciate other administrative processes such as recruitment of staff, procurement of goods and services (including consultants), preparation and negotiation of cooperation agreements etc. to the extent that these might have influenced project performance;
- (c) Present to what extent co-financing has materialized as expected at project approval (see Table 1). Report country co-financing to the project overall, and to support project activities at the national level in particular. The evaluation will provide a breakdown of final actual costs and co-financing for the different project components (see tables in Annex 3).
- (d) Describe the resources the project has leveraged since inception and indicate how these resources are contributing to the project's ultimate objective. Leveraged resources are additional resources—beyond those committed to the project itself at the time of approval—that are mobilized later as a direct result of the project. Leveraged resources can be financial or in-kind and they may be from other donors, NGO's, foundations, governments, communities or the private sector.

Analyse the effects on project performance of any irregularities in procurement, use of financial resources and human resource management, and the measures taken by SOPAC or UNEP / UNDP to prevent such irregularities in the future. Appreciate whether the measures taken were adequate.

UNEP and UNDP supervision and backstopping. The purpose of supervision is to verify the quality and timeliness of project execution in terms of finances, administration and achievement of outputs and outcomes, in order to identify and recommend ways to deal with problems which arise during project execution. Such problems may be related to project management but may also involve technical/institutional substantive issues in which UNEP / UNDP has a major contribution to make. The evaluators should assess the effectiveness of supervision and administrative and financial support provided by UNEP and UNDP including:

- (a) The adequacy of project supervision plans, inputs and processes;
- (b) The emphasis given to outcome monitoring (results-based project management);
- (c) The realism and candour of project reporting and ratings (i.e. are PIR ratings an accurate reflection of the project realities and risks);
- (d) The quality of documentation of project supervision activities; and
- (e) Financial, administrative and other fiduciary aspects of project implementation supervision.

Monitoring and evaluation. The evaluation will include an assessment of the quality, application and effectiveness of project monitoring and evaluation plans and tools, including an assessment of risk management based on the assumptions and risks identified in the project document. The evaluation will appreciate how information generated by the M&E system during project implementation was used to adapt and improve project execution, achievement of outcomes and ensuring sustainability. M&E is assessed on three levels:

- (a) *M&E Design.* Projects should have sound M&E plans to monitor results and track progress towards achieving project objectives. An M&E plan should include a baseline (including data, methodology, etc.), SMART indicators and data analysis systems, and evaluation studies at specific times to assess results. The time frame for various M&E activities and standards for outputs should have been specified. The evaluators should use the following questions to help assess the M&E design aspects:
- Quality of the project logframe (original and possible updates) as a planning and monitoring instrument; analyse, compare and verify correspondence between the original logframe in the Project Document, possible revised logframes and the logframe used in Project Implementation Review reports to report progress towards achieving project objectives;
 - SMART-ness of indicators: Are there specific indicators in the logframe for each of the project objectives? Are the indicators measurable, attainable (realistic) and relevant to the objectives? Are the indicators time-bound?
 - Adequacy of baseline information: To what extent has baseline information on performance indicators been collected and presented in a clear manner? Was the methodology for the baseline data collection explicit and reliable?
 - Arrangements for monitoring: Have the responsibilities for M&E activities been clearly defined? Were the data sources and data collection instruments appropriate? Was the frequency of various monitoring activities specified and adequate? In how far were project users involved in monitoring?
 - Arrangements for evaluation: Have specific targets been specified for project outputs? Has the desired level of achievement been specified for all indicators of objectives and outcomes? Were there adequate provisions in the legal instruments binding project partners to fully collaborate in evaluations?
 - Budgeting and funding for M&E activities: Determine whether support for M&E was budgeted adequately and was funded in a timely fashion during implementation.
- (b) *M&E Plan Implementation.* The evaluation will verify that:
- the M&E system was operational and facilitated timely tracking of results and progress towards projects objectives throughout the project implementation period;
 - annual project reports and Progress Implementation Review (PIR) reports were complete, accurate and with well justified ratings;
 - the information provided by the M&E system was used during the project to improve project performance and to adapt to changing needs.
- (c) *Use of GEF Tracking Tools.* These are portfolio monitoring tools intended to roll up indicators from the individual project level to the portfolio level and track overall portfolio

performance in focal areas. Each focal area has developed its own tracking tool¹¹ to meet its unique needs. Agencies are requested to fill out at CEO Endorsement (or CEO approval for MSPs) and submit these tools again for projects at mid-term and project completion. The evaluation will verify whether UNEP has duly completed the relevant tracking tool for this project, and whether the information provided is accurate.

G: Complementarities with UNEP and UNDP strategies and programmes

UNEP aims to undertake GEF funded projects that are aligned with its own strategies. The evaluation should present a brief narrative on the following issues:

- (a) *Linkage to UNEP's Expected Accomplishments and POWs 2010-2011, 2012-2013.* The UNEP MTS specifies desired results in six thematic focal areas. The desired results are termed Expected Accomplishments. Using the completed ToC/ROtI analysis, the evaluation should comment on whether the project makes a tangible contribution to any of the Expected Accomplishments specified in the UNEP MTS. The magnitude and extent of any contributions and the causal linkages should be fully described. Whilst it is recognised that UNEP GEF projects designed prior to the production of the UNEP Medium Term Strategy 2010-2013 (MTS)¹² would not necessarily be aligned with the Expected Accomplishments articulated in those documents, complementarities may still exist and it is still useful to know whether these projects remain aligned to the current MTS.
- (b) *Alignment with the Bali Strategic Plan (BSP)¹³.* The outcomes and achievements of the project should be briefly discussed in relation to the objectives of the UNEP BSP.
- (c) *Gender.* Ascertain to what extent project design, implementation and monitoring have taken into consideration: (i) possible gender inequalities in access to and the control over natural resources; (ii) specific vulnerabilities of women and children to environmental degradation or disasters; and (iii) the role of women in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation. Appreciate whether the intervention is likely to have any lasting differential impacts on gender equality and the relationship between women and the environment. To what extent do unresolved gender inequalities affect sustainability of project benefits?
- (d) *South-South Cooperation.* This is regarded as the exchange of resources, technology, and knowledge between developing countries. Briefly describe any aspects of the project that could be considered as examples of South-South Cooperation.

The Consultants' Team

For this evaluation, the evaluation team will consist of one team leader and 1-2 supporting consultants. The consultants should have experience in project evaluation, and in planning and implementing sustainable water resources and wastewater management projects, preferably in the Pacific Islands – region. At least one of the consultants should be a policy expert from the relevant field. The consultants should be fluent in written and spoken English. Familiarity with the GEF, UNEP and UNDP is an advantage. The Team Leader will coordinate data collection and analysis, and the

¹¹ http://www.thegef.org/gef/tracking_tools

¹² <http://www.unep.org/PDF/FinalMTSGCSS-X-8.pdf>

¹³ <http://www.unep.org/GC/GC23/documents/GC23-6-add-1.pdf>

preparation of the main report for the evaluation, with substantive contributions by the supporting consultants. The consultants will ensure together that all evaluation criteria are adequately covered.

By undersigning the service contract with UNEP/UNON, the consultants certify that they have not been associated with the design and implementation of the project in any way which may jeopardize their independence and impartiality towards project achievements and project partner performance. In addition, they will not have any future interests (within six months after completion of the contract) with the project's executing or implementing units.

Evaluation Deliverables and Review Procedures

The evaluation team will prepare an **inception report** (see Annex 1(a) of TORs for Inception Report outline) containing a thorough review of the project context, project design quality (see Annex 7), a draft reconstructed Theory of Change of the project, the evaluation framework and a tentative evaluation schedule.

The review of design quality will cover the following aspects:

- (a) Strategic relevance of the project;
- (b) Preparation and readiness;
- (c) Financial planning;
- (d) M&E design;
- (e) Complementarities with UNEP / UNDP strategies and programmes;
- (f) Sustainability considerations and measures planned to promote replication and up scaling.

The inception report will also present a draft, desk-based reconstructed Theory of Change of the project. It is vital to reconstruct the ToC *before* the most of the data collection (review of reports, in-depth interviews, observations on the ground etc.) is done, because the ToC will define which direct outcomes, drivers and assumptions of the project need to be assessed and measured to allow adequate data collection for the evaluation of project effectiveness, likelihood of impact and sustainability.

The evaluation framework will present in further detail the evaluation questions under each criterion with their respective indicators and data sources. The evaluation framework should summarize the information available from project documentation against each of the main evaluation parameters. Any gaps in information should be identified and methods for additional data collection, verification and analysis should be specified.

The inception report will also present a tentative schedule for the overall evaluation process, including a draft programme for the country visit and tentative list of people/institutions to be interviewed. The inception report will be submitted for review and approval by the Evaluation Office before the evaluation team travels.

The main evaluation report should be brief (no longer than 35 pages - excluding the executive summary and annexes), to the point and written in plain English. The evaluation team will deliver a high quality report in English by the end of the assignment. The report will follow the annotated Table of Contents outlined in Annex 1. It must explain the purpose of the evaluation, exactly what

was evaluated and the methods used (with their limitations). The report will present evidence-based and balanced findings, consequent conclusions, lessons and recommendations, which will be cross-referenced to each other. The report should be presented in a way that makes the information accessible and comprehensible. Any dissident views in response to evaluation findings will be appended in footnote or annex as appropriate. To avoid repetitions in the report, the authors will use numbered paragraphs and make cross-references where possible.

Review of the draft evaluation report. The evaluation team will submit the zero draft report latest two weeks after the country visits has been completed to the UNEP EO and revise the draft following the comments and suggestions made by the EO. Once a draft of adequate quality has been accepted, the EO will share this first draft report with the UNEP Task Manager and the UNDP RTA, who will ensure that the report does not contain any blatant factual errors. The UNEP Task Manager and the UNDP RTA will then forward the first draft report to other project stakeholders, in particular the SOPAC and country teams for review and comments. Stakeholders may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions. It is also very important that stakeholders provide feedback on the proposed recommendations and lessons. Comments would be expected within two weeks after the draft report has been shared. Any comments or responses to the draft report will be sent to the UNEP EO for collation. The EO will provide the comments to the evaluation team for consideration in preparing the final draft report.

The evaluation team will submit the final draft report no later than 2 weeks after reception of stakeholder comments. The team will prepare a **response to comments**, listing those comments not or only partially accepted by them that could therefore not or only partially be accommodated in the final report. They will explain why those comments have not or only partially been accepted, providing evidence as required. This response to comments will be shared by the EO with the interested stakeholders to ensure full transparency.

Submission of the final Terminal Evaluation report. The final report shall be submitted by Email to the Head of the Evaluation Office, who will share the report with the Director, UNEP/GEF Coordination Office, the UNEP/DEPI Task Manager and the UNDP RTA. The Evaluation Office will also transmit the final report to the GEF Evaluation Office.

The final evaluation report will be published on the UNEP Evaluation Office web-site www.unep.org/eou. Subsequently, the report will be sent to the GEF Office of Evaluation for their review, appraisal and inclusion on the GEF website.

As per usual practice, the UNEP EO will prepare a **quality assessment** of the zero draft and final draft report, which is a tool for providing structured feedback to the evaluation consultants. The quality of the report will be assessed and rated against both GEF and UNEP criteria as presented in Annex 4.

The UNEP Evaluation Office will also prepare a **commentary** on the final evaluation report, which presents the EO ratings of the project based on a careful review of the evidence collated by the evaluation consultant and the internal consistency of the report. These ratings are the final ratings that the UNEP Evaluation Office will submit to the GEF Office of Evaluation.

Logistical arrangement

This Terminal Evaluation will be undertaken by a team of independent evaluation consultants contracted by the UNEP Evaluation Office. The consultants will work under the overall responsibility of the UNEP Evaluation Office and will consult with the EO on any procedural and methodological matters related to the evaluation. It is, however, the consultants' individual responsibility to arrange for their travel, visa, obtain documentary evidence, plan meetings with stakeholders, organize field visits, and any other logistical matters related to the assignment. The UNEP Task Manager, UNDP RTA and SOPAC will, where possible, provide logistical support (introductions, meetings, transport etc.) for the country visit, allowing the consultants to conduct the evaluation as efficiently and independently as possible.

Schedule of the evaluation

The consultants will be hired under an individual Special Service Agreement (SSA).

Annex 2: Evaluation interview schedule

Date	Person	Affiliation	Interview Location	Method
13/11/13	Rhonda Robinson	Deputy Director, Water and Sanitation Program, SOPAC, Fiji rhondar@spc.int	Nadi, Fiji	In person
	David Hebblethwaite	Policy Adviser, SOPAC, Fiji daveh@spc.int	Nadi, Fiji	In person
14/11/13	Isabelle Vanderbeck	Task Manager, International Waters, UNEP, U.S. uneprep@oas.org	Nadi, Fiji	In person
	Jose Padilla	Regional Technical Advisor, UNDP, Thailand jose.padilla@undp.org	Nadi, Fiji	In person
17/11/13	Marc Wilson	Regional Project Manager, GEF IWRM Project, Fiji markw@spc.int	Nadi, Fiji	In person
09/12/13	Sam Tuuamali Semisi	Project Demonstration Project Manager, GEF IWRM Project, Samoa sam.semisi@mnre.gov.ws	Apia, Samoa	In person
	Sulumalo Amataga Penaia	A/g CEO Water Resources Division, Ministry of NR & E, Samoa amatago.penaia@mnre.gov.ws	Apia, Samoa	In person
	Francis Reupera	Water Sector Coordinator, Ministry of NR&E, Samoa francis.reupera@mnre.gov.ws	Apia, Samoa	In person
10/12/13	Malaki Iakopo	Principal Policy & Regulatory Adviser, Ministry of NR&E, Samoa malaki.iakopo@mnre.gov.ws	Apia, Samoa	In person
11/12/13	Vinesh Kumar	Project Demonstration Manager, GEF IWRM Project, Fiji vinesh.kumar01@govnet.gov.fj	Nadi, Fiji	In person
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	Som Padiachi	District Advisory Council, Nandi, Fiji	Nadi, Fiji	In person
12/12/13	Namoa Sadareke	Chairman, Disaster Management Committee, Nandi, Fiji	Nadi, Fiji	In person
	Kori	Water Authority of Fiji, Fiji	Nadi, Fiji	In person
	Senivasa Waqaramasi	Head of Environment, West, Ministry of Local Government and Urban Development, Fiji, senivasa.waqaramasi@govnet.gov.fj	Nadi, Fiji	In person
	Joeli Cawaki	Commissioner (Western Division), Nadi, Fiji joeli.cawaki@govnet.gov.fj	Nadi, Fiji	In person
13/12/13	Milika Sobey	Head of Water Programs, IUCN, Fiji Milika.SOBEY@iucn.org	Suva Fiji	In person
	Floyd Robinson	Environmental Program Associate, UNDP Multi Country Office, Fiji floyd.robinson@undp.org	Suva Fiji	In person
	Winifereti Nainoca	UNDP Multi Country Office, Fiji winifereti.nainoca@undp.org	Suva Fiji	In person
16/12/13	Marc Wilson	Regional Project Manager, GEF IWRM Project, Fiji markw@spc.int	Suva Fiji	In person
	Chris Patterson	Mainstreaming and Indicators Advisor, GEF IWRM Project, Fiji	Suva Fiji	In person

Date	Person	Affiliation	Interview Location	Method
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17/12/13	Sisi Tongi'onevai	Demonstration Project Manager, Ministry of Lands, Survey, Natural Resources & Environment, Vava'u sisitongaonevai@gmail.com	Neiafu, Vava'u Tonga	In person
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18/12/13	Piula Maea	Neiafu Women's Development Group, Vava'u	Neiafu, Vava'u Tonga	In person
	Karen Stone	Vava'u Environmental Protection Association, Vava'u info@vavauenvironment.org	Neiafu, Vava'u Tonga	In person
	Winnie Veikoso	Vava'u Manager, Department of Environment, Vava'u feauini@gmail.com	Neiafu, Vava'u Tonga	In person
19/12/13	Silika Ngahe	Vava'u Manager, Department of, Fishereis Neiafu	Neiafu, Vava'u Tonga	In person
	Paula Tatafu	Chair of Vava'u IWCM Committee and Vava'u Chief Magistrate	Neiafu, Vava'u Tonga	In person
	Puluno Toke	Director of Tourism, Vava'u tvbv@kalianetvav.to	Neiafu, Vava'u Tonga	In person
23/01/14	Ain Kabua	Community Member, Laura Lens IWRM Committee	Majuro, MRI	In person
24/01/14	Julius Lucky	Demonstration Project Manager, Environmental Protection Agency RMI tupaclolo@hotmail.com	Majuro, MRI	In person
	Roderick Kabua	Assistant Demonstration Project Manager, Environmental Protection Agency RMI rodkabua@gmail.com	Majuro, MRI	In person
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	Warwick Harris	GEF Focal Point, Acting Director Office of Environmental Planning and Policy Coordination, RMI warwick47@gmail.com	Majuro, MRI	In person
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Date	Person	Affiliation	Interview Location	Method
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	Johnny Kintaro Jr	Palau Public Utilities Corporation jkintaro@palaunet.com	Koror, Palau	In person
	Alan Olsen	Belau National Museum kerellang@palaunet.com	Koror, Palau	In person
	Nicholas Kloulubak	Palau Energy Office, Palau nyk@palaunet.com	Koror, Palau	In person
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	Pua Michael	Ministry of Natural Resources, Environment & Tourism palauforestry@gmail.com	Koror, Palau	In person
	Destin Penland	Pacific Resources for Education and Learning penlandd@prel.org	Koror, Palau	In person
03/02/14	Marc Wilson	Regional Project Manager, GEF IWRM Project, Fiji markw@spc.int	Suva Fiji	In person
	Chris Patterson	Mainstreaming and Indicators Advisor, GEF IWRM Project, Fiji christopherp@spc.int	Suva Fiji	In person
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05/02/14	Tauala Katea	Chief Forecaster, Bureau of Meteorology, tuvmet@tuvalu.tv	Funafuti Tuvalu	In person
	Soama Tutonu	Reverend, Baptists Church, Tuvalu	Funafuti Tuvalu	In person
	Saini Simona	Director, Ministry of Local Government, Women and Youth	Funafuti Tuvalu	In person
	Semese Alefaio	Marine Biologist, Department of Fisheries fca@tuvalu.tv	Funafuti Tuvalu	In person
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Date	Person	Affiliation	Interview Location	Method
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	Robin Hekau	Chairperson Alofi south Village Council-Demo Village c/- nina.hekau@mail.gov.nu	Niue	Skype
	Ms Rupina Morrissey	Rep from Alofi North village council rupina@niue.nu	Niue	Skype
	Crispina Konelio	Project assistant Crispina.Konelio@mail.gov.nu	Niue	Skype
	Ms Grizelda Mokoia	Public Health officer (water quality)	Niue	Skype
14/02/14	Reenate Willie	Head of Water Engineering Unit, Ministry of Public Works and Energy reenteariki@gmail.com	Kiribati	Skype
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	Benjamin Billy	Solomon Islands Water Authority	Solomon Islands	Skype
	Kim Irofufuli	Solomon Islands Water Authority	Solomon Islands	Skype
	Rossette Kalmet,	Project Manager, IWRM Project rkalmet@vanuatu.gov.vu	Vanuatu	Skype
	Alsen Obed	Chairman of the IWRM Steering Committee	Vanuatu	Skype
	Glen Alo	Community representative, IWRM Steering Committee	Vanuatu	Skype
21/02/14	Takehiro Nakamura	GEF Coordinator, UNEP, takehir.nakamura@unep.org	Kenya, Nairobi	Skype
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	Vauli Amoe	Recipient of the Demo Composting Toilet (Community Champion)	Nauru	Skype
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	Mii Kauvai	Muri Environment Care Group	Cook Islands	Skype
	Lee	Finance Officer	Cook Islands	Skype

Annex 3: Interview questions

This is a list of questions that we will selectively draw from as appropriate for each of the stakeholder groups we interview.

Preliminary

1. Interviewee's name, organisation and contact details
2. Role in the Project, including as a stakeholder observer/participant (& which activities involved in)
3. General impression on the project and how it WAS executed.

Relevance and achievement

4. Did the project achieve its objective through completion of components and activities? Please give specific information on successes or problems
 - Specifically, were IWRM and WUE plans produced and how will these assist in meeting the objective?
 - What has been the level of adoption of the policy/plan/strategy and how have IWRM policies and WUE strategies been integrated in to National development plans?
5. Were the activities relevant to your community, country and region?
6. How has the Project targeted national and regional level learning with regards to IWRM and WUE?
7. In what way have the indicators monitoring developed assisted with improving the IWRM and WUE planning and activities?
8. What local, national, regional or global benefits (and successes) have been achieved through the development and use of these indicators?

Partnerships and regional coordination

9. What progress was made in developing partnership mechanisms to objectively measure impacts of investment and management actions? Was the approach adopted effective (please explain how/why)?
10. How has the regional / national co-ordination been effective? How could this have been improved?
11. How effective were the linkages between the EU funded Component 3 and the other Project activities?
12. Have the Steering Committee meetings met your expectation and how have they helped guide the project ?
13. What are the key lessons from the involvement of multiple UN Agencies and other organisations?
14. Have the co-ordination mechanisms established (PSC, RTAG, etc.) been effective in managing the project?
15. Has the Regional Co-ordination Unit been responsive to national representatives, national demo projects, other stakeholders (e.g. civil society) requests?
16. What are the specific challenges presented by this project that covers 14 Pacific SIDS?
17. How could the co-ordination / management of the regional project be enhanced?
18. Has the UNEP and UNDP supervision and support been sufficient and effective?
19. What impacts has the RTAG had on the work programme? What changes?

Implementation of project activities

20. Were there any delays to the project's activities? What were these and how were the delays resolved?

Gender and equity

21. How were gender issues included and recorded in the project activities and priorities?
22. Who were the intended beneficiaries of the project outputs and outcomes?
23. Who became the beneficiaries?

Stakeholder participation/engagement

24. How did the demonstration projects involve stakeholders? (examples)
25. How did the demonstration projects assist in reducing barriers to participatory approaches on IWRM and WUE at local and national level?
26. Have policies/strategies developed in the project involved wide government and civil society in their development and approval?
27. How did the project identify the stakeholders? Do you believe this was effective?
28. How has the project encouraged wide stakeholder involvement? Has this been effective? How could it be further improved?

Capacity building

29. What types of training have been provided (eg. technical, project management, M&E)?
30. What further training is needed?
31. What benefits have been accrued from the capacity development activities – locally, nationally and regionally?
 - How will this improve the sustainability of the overall approach to IWRM & WUE?

Sustainability

32. What are the risks to long-term sustainability to IWRM and WUE approaches, and what further could/can be done to improve the sustainability of IWRM & WUE approaches?
33. What are the main barriers to post-project sustainability (financial, institutional, political, social, etc.) of these actions? How can they be overcome?
34. What more could be done to encourage replication of demonstration activities?
35. What aspects of the project were of most value to you, and which aspects will you be carrying forward?

Legacy objectives

36. How will the Project assist in achieving the MDG targets within national development strategies? Please give specific examples.
37. How does the Project contribute to the overall goals of the Pacific Alliance for Sustainability (PAS)?

Annex 4: IWRM Project partnerships

IO=International Organisation; Pac=Pacific regional coordinating organisation; NG=National Government agency; R/LG= Regional or Local Government agency; SOE=State Owned Enterprises; AS=Industry or similar association; NGO=Non-Government Organisation or civil society group

International	Partners
Funders	GEF (IO), EU (IO)
Implementing agencies	UNDP(IO), UNEP(IO)
Executing agency	SPC-SOPAC (Pac)
Regional Steering Committee (Countries)	Cook Islands, Fiji, FSM, Kiribati, Nauru, Niue, Palau, RMI, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu
Regional Technical Advisory Group	<ul style="list-style-type: none"> • Chairperson of the Regional Project Steering Committee (RSC) • CROP Agency representative • GEF Implementing Agency representative • Selected regional experts • Representatives from Public Water Utilities/State Owned Enterprises actively engaged in water resource management and sanitation in Pacific Island Countries • Representatives of NGOs actively engaged in water resource management • Regional Manager of the GEF Pacific IWRM Project.
Country	Implementation Partners (represented on Project Steering Committees)
Cook Islands	<ul style="list-style-type: none"> • Ministry of Infrastructure and Planning (NG) • Muri Environment Care Group (NGO)
Fiji	<ul style="list-style-type: none"> • Airports Fiji Ltd (SOE) • Ba Provincial Council (R/LG) • Commissioner, West (NG) • Forests Conservator (NG) • Departments of Environment, Mineral Resources, National Planning (NG) • Permanent Secretary, Public Enterprises, Communications, Civil Aviation & Tourism (NG) • Fiji Meteorological Services (NG) • Divisional Survey, West (NG) • Land and Water Resource Management Division (NG) • National Disaster Management Office (NG) • Town & Country Planning (NG) • Fiji Hoteliers Association President (AS) • Nadi Chamber of Commerce (AS) • Pacific Dialogue Ltd (AS) • Native land Trust Board (NG) • Roko Tui Ba (Traditional leader) • Nadi Rural Local Authority (LG) • Water Authority Fiji (NG) • Tui Nadi & Tui Nawaka (Traditional leader) • Land Resource Planning and Development (NG)
FSM	<ul style="list-style-type: none"> • Pohnpei, Chuuk, Yap, Korsae State Governments (NG) • Pohnpei, Chuuk, yap Utilities Corporations (NG) • Conservation Society of Pohnpei (NGO) • Departments of T&I Water Division, Health & Sanitation (NG)
Nauru	<ul style="list-style-type: none"> • Departments of Commerce, Industry & Environment, (NG) Health, Finance & Sustainable Development (NG), Home Affairs (NG),

	<ul style="list-style-type: none"> Education (NG), Police (NG), Prison & Emergency Services (NG), National Disaster Risk Management Office (NG) Nauru Utilities Corporation (SOE) Nauru Rehabilitation Corporation (SOE) Nauru Chamber of Commerce (AS) Representative of Nauru Private Business Sector Organisation (NGO) Representative of Community-based Organisations (NGO)
Niue	<ul style="list-style-type: none"> Directors of Public Works (NG), Environment (NG), Met Office (climate change) (NG), Community Affairs (NG), DAFF (NG) Public Health Officer, Water Quality (NG) Manager Water Supply (NG) Water Operation Advisor (NG) President for Chamber of Commerce(AS) Treasury Donor Projects Officer (NG)
Palau	<ul style="list-style-type: none"> Palau Conservation Society (NGO) Bureau of Public Works, Water & Wastewater Operations (NG) Airai State Government (R/LG) Ministry of Natural Resources, Environment & Tourism, Bureau of Agriculture (NG) Ministry of State Government, Bureau of International Trade & Technical Assistance (NG) Ministry of Public Infrastructure, Industries & Commerce, Office of PALARIS (NG) Belau National Museum (NG) Environmental Quality Protection Board (NG) Ministry of Health, Bureau of Public Health (NG) Pacific Adaptation to Climate Change Project (NG) Palau Community Action Agency (NGO)
RMI	<ul style="list-style-type: none"> Traditional leaders and landowners (NGO) Local government representation (R/LG) Laura Farm Association (NGO) Government and technical representation (EPAV (NG), Majuro Water & Sewer Company (SOE), National Weather Services (NG)) NGO representation(NGO) ROC Taiwan Farm Technical Assistance to RMI program (IO)
Samoa	<ul style="list-style-type: none"> Ministries of Women, Culture & Social Development (NG), Education (NG), Sports & Culture (NG), Agriculture & Fisheries (NG), Health (NG), Works & Infrastructure (NG), Natural Resources & Environment (NG) Samoa Tourism and Samoa Water Authorities (NG) Electric Power Corporation (SOE) SUNGO (NGO) University of the South Pacific (ES) SPREP (Pac) UNDP (IO)
Solomon Islands	<ul style="list-style-type: none"> Solomon Islands Water Authority (NG) Honiara City Council (R/LG) Ministry of Mines, Energy and Rural Electrification Water Resources and Geology Survey Divisions (NG) Ministry of Environment, Conservation and Disaster Management Environment & Conservation, Meteorological Services, Climate Change Divisions (NG) Forest Resources Management Division, Women Development Division, Agriculture Research Division (NG) Ministry of Lands & Housing (NG) Kovi & Kongulai landowners (NGO) Solomon Islands College of Higher Education (ES)

	<ul style="list-style-type: none"> • Live & Learn Education (NGO) • National Public Health Service (NG)
Tonga	<ul style="list-style-type: none"> • Ministry of Justice (NG) • Governor's Office (Vava'u) (NG) • Ministries of Lands, Survey and Natural Resources (NG), Health (NG), Works (NG), Tourism (NG), Fisheries (NG), Environment and Climate Change (NG), Forestry (NG), Meteorological Services (NG) • Tonga Water Board (NG) • Church Minister (NGO) • Town and District Officers (R/LG) • Tonga Trust (AS) • Vava'u Environmental Protection Association (NGO) • Neiafu Citizen's representative (NGO) • Vava'u Youth Congress (NGO) • AusAid (IO) • Neiafu and Falelu Women Development Groups (NGO)
Tuvalu	<ul style="list-style-type: none"> • Directors of Works (Ministry of Public Utilities) (NG), Fisheries (Ministry of Natural Resources) (NG), Agriculture (Ministry of Natural Resources) (NG), Women (Ministry of Home Affairs) (NG), Environment (Ministry of Foreign Affairs) (NG), Rural Development (Ministry of Home Affairs) (NG), Treasury (Ministry of Finance) (NG), Education (Ministry of Education) (NG), Disaster Coordinator (Office of the Prime Minister) (NG), Senior Environmental Health Inspector (Ministry of Health) (NG) • Compost toilet owners (NGO) • Church representatives (NGO) • Vaitupu Island Community Leader (NGO) • Chief of Funafuti Island (R/LG) • Kaupule Funafuti Secretary (NG) • TANGO Coordinator (NGO) • PACC Coordinator (NG)
Vanuatu	<ul style="list-style-type: none"> • Departments of Fisheries (NG), Forestry (NG), Water Resources (NG), Public Works (NG), Environment (Sanma Province) (NG) • Sanma Provincial Council (R/LG) • Rural Health (NG) • Live and Learn (NG)) • Departments of Agriculture, Forestry, Lands, Water Resources (NG)

Annex 5: Component 1 Evaluation. Country contributions to Pacific Regional IWRM

The country demonstration project component of the Pacific IWRM project focused on removing barriers to implementation at the community level and was targeted towards national and regional level learning and application: learning from - doing more. This objective, through the Intermediate State of articulating lessons learned (see Figure 3), is the connection to the other three components of the project, the regional indicator framework (C2), policy, legislative and institutional reform (C3) and regional and national capacity building and sustainability (C4). We discuss this connection in country reports (included in this Annex) that provide a perspective of the IWRM project achievements through the lens of Component 1, the demonstration projects.

The demonstration projects also produced direct local environmental results and benefits, and health co-benefits, from on-the-ground changes in practice. In this annex, we also provide an assessment of the progress made towards attaining these benefits, i.e the four lower order outcomes for this component (Figure 3):

- Reduced environmental stress;
- Improved community access to clean water;
- Reduced water-related health issues (through the protection of water supplies and reduced sewage releases into fresh and marine water environments); and
- Best use of water resources.

Country environmental results and benefits, and health co-benefits

The country demonstration projects fell into one of four groups, depending on the intended outcome of the intervention.

Table 16: Country participants by intervention group

Intervention group	Country
Watershed management	FSM
	Palau
	Samoa
	Vanuatu
Wastewater management and sanitation	Nauru
	RMI
	Tuvalu
Water resources assessment & protection	Cook Islands
	Fiji
	Niue
Water use efficiency and water safety	Solomon Islands
	Tonga

The project results-based monitoring and indicators framework set regional targets for these interventions, which were translated to country-specific sets of targets and indicators. As discussed in the next Annex on Component 2, countries reported annually against these results-based targets. Our evaluation takes one target from each intervention group, illustrative of results achieved, and discusses country progress towards the target.

Watershed management: All four countries in this group had Indicator 6 “Increase in land protected and/or rehabilitated over the catchment” assigned. Their respective targets with respect to land area differed. The achievement for each country was reported in the RSC5 paper *Outcomes of Watershed Management Initiatives Support by the GEF Pacific IWRM Project* (SOPAC/GEF/IWRM/RSC.5/4), and repeated here. We heard comments consistent with these reported watershed protection/rehabilitation indicators during our evaluation interviews.

FSM - Watershed protection boundaries for the sustainable management of 1,700 hectares of Nett watershed were agreed and incorporated into municipal laws.

Palau - The project has partnered with Airai State to getting the Upper Ngerikill watershed protected and the entire watershed managed using best management practices. Project revegetation pilots will be scaled up through Airai State funding the implementation of the Management Plan.

Samoa - National government committing to purchase 1,500 ha of upland watershed (valued at ~140 million US dollars) and designating it as a watershed conservation zone. These initiatives in Samoa have acted to leverage national government investment (~45 million US dollars) in the implementation of on-going stress reduction.

Vanuatu - Zoning initiatives in the Sarakata watershed of Vanuatu have resulted in the designation of two conservation areas covering 1,060 hectares. Supporting stress reduction actions in Sarakata have involved the closure and rehabilitation of a large commercial piggery which had been a major contributing factor to waterborne disease among peri-urban communities, as well as the rehabilitation of 50 hectares of degradation hotspots, and the initiation of an ecosanitation programme targeting disadvantaged squatter communities.

Wastewater management and sanitation: All three countries in this group had Indicator 13 “Reduction in use of freshwater for sanitation purposes due to composting toilet installation” assigned. The same target, 30% reduction in household water use (presumably referring to the demonstration households only) was set for all.

Nauru – Demonstration compost toilets have been installed at the household level and also at a junior school. Although the attraction and trigger for the household installation was free compost for the kitchen garden, water savings during drought and protecting the groundwater were additional benefits. The availability of water (the flip side of reduction in water use) was a significant driver for the school. Without water for flushing septic tank style sanitation systems, the school has to close.

RMI - Three demonstration compost toilets have been installed, one at the Laura Lens Learning Centre. The evaluators are not aware of any water use data, but a 30% reduction in household water use is a calculation based on the typical volume of a toilet flush and its contribution to total household daily use volume.

Tuvalu – the home of composting toilets. From a target of installing 10 falevatie, the demonstration project has triggered installation of 40 falevatie to date, for around 280 people (~5% of Funafuti’s population). This has been estimated to reduce water consumption for these households by over 30 percent. With support from EU funding, a

further 45 falevatie are to be installed in Funafuti and another 90 are planned on the outer islands.

Water resources assessment & protection: Both Cook Islands and Niue had Indicator 22 “Nitrogen pollution discharged to groundwater” assigned. There were two targets, one for sewage pollution and the other for discharges from piggeries. The target levels of nitrogen reduction differed for the two sources (the piggery target reduction greater than the human sewage), and differed between the countries.

Cook Islands - A trial of upgrading and monitoring of 10 household septic systems, using combinations of three different secondary treatment systems and two different land types, is nearing completion. Nutrient reductions are reported already, although we heard that the final round of monitoring and the final report are due in the next three months. A discussion happened during interviewing about the sensibility of targets, set before the technologies and locations (land types) were selected, with a conclusion that more critical thought by a group of people with appropriate local and technical knowledge need to develop and agree project-specific targets. The Cook Islands National Sanitation Implementation Plan includes an upscaling strategy and schedule to upgrade a further 1,200 septic units, which has the potential (pending results of the trial) to significantly reduce nitrogen discharge to the ground and lagoon water.

Niue – Work in this area has commenced. A survey of septic tanks and piggeries has been undertaken, and the locations are now in the National GIS mapping system. Rehabilitation work resulting from the survey has not been undertaken because of the cost factor. The ground has been laid for revising the National Building Code to include appropriate septic tank design and construction, inspection requirements and a national guideline for wastewater effluent.

Water use efficiency and water safety: Assessing water resources and water use efficiency programmes were significant aspects of the Solomon Islands and Tonga demonstration projects. Indicator 8 “Reduction in water leakage losses” assigned, but it appears as if the Solomon Islands did not despite having project component on water use efficiency and water demand management.

Solomon Islands – A major project achievement for Solomon Islands was the establishment of a competent leakage detection team in the Solomon Islands Water Authority, and its identification and assessment of major leaks across Honiara. Priority areas have been classified as Demand Management Areas, and with the support of JICA, these areas are undergoing rehabilitation. Rehabilitation has reduced leakage and increased the water-hours.

Tonga – An assessment on the Neiafu groundwater and sustainable management identified 70% water loss, much higher than expected. The project aimed to reduce water leakages by 40%. The majority of the water loss was attributed to failing old infrastructure. A Loss Management Plan for the Neiafu system has been developed and the Tonga Water Board is working through leak detection and system management to improve the situation. Household water use efficiency was also targeted.

Conclusions

Without regionally compiled results against the regional indicators available, it is not possible for the evaluators to say how the project as a whole tracked against its regional-level targets. Indeed, at the country level it is still too early to quantify direct local environmental results and benefits, and health co-benefits, from on-the-ground changes in practice. Nonetheless, the narrative provides a cross-section of country/community-level achievements against the country-level indicators.

We reiterate our comment about setting sensible and well-grounded targets, especially those related to trial or pilot technologies.

We note that, apart from possibly being too early to report quantified results, many countries seemed not to be collecting the necessary data to report such results, or if collecting them had not analysed the dataset.

We strongly recommend that PCU complete the activity of compiling the regional project indicator results for Component 1. Furthermore, we would encourage assistance be given to countries to write up some aspects of their work for other audiences, as appropriate in science and development sector publications. The development sector is in desperate need of evidenced-based practice, which the Pacific IWRM project provides. The development sector often needs to seek support from the science sector to confirm status and progress, but the science sector lacks grounded information on the current situation. UNESCO comes to mind as a possible publisher and funder of a specific edition of the Pacific IWRM story – engagement, environmental and health science, practice and policy.

Annexure Country reports - contributions to Pacific Regional IWRM

The purpose of the country reports that follow is to provide a perspective of the IWRM project achievements through the lens of Component 1, the demonstration projects. This adds richness to the analysis of the evaluation criteria under categories of Attainment of objectives and planned results, Sustainability and catalytic role, and Processes affecting attainment of project results. Annex 9 provides the performance assessment of country demonstration projects against their respective components and indicators.

Since country reporting provides achievement information against the country-level logframe, and regional PCU reports against the IWRM project-level logframe, these country reports take a different approach of assessing country-level achievement and contribution to the regional project against the reconstructed Theory of Change (TOC). We have previously noted the importance of the relationships/linkages between the four components of the IWRM project and between the project phases (conception, design, implementation, synthesis/reflection and legacy) in driving or impeding the pathway of change. Assessing the demonstration projects against the IWRM project-level Impact Drivers (ID) and Assumptions (A) will make explicit the technical, cultural, social and institutional factors and assumptions that have supported or impeded achievements at the country level and consequently achievements at the regional-level.

The format of each country report is:

- The country project title, goal and purpose statements and components, as in the logframe.
- A snapshot of the project achievements, drawn from the country final report and from stakeholder consultations.
- An assessment of how the IWRM project-level Impact Drivers and Assumptions have influenced project design, implementation and achievement, and prepared the country for replication, scale-up and legacy activities, drawn from the country final report and stakeholder consultations.

Cook Islands

Integrated freshwater and coastal management on Rarotonga

Project Purpose

To demonstrate through a process of policy change, capacity building and technical information gathering and management, the delivery of improved water quality in the freshwater and near coastal environments and an improved water resource management structure.

Project Components

No logframe could be found for the Cooks Island IWRM Demonstration Project. The following components derived from a combination of the common IWRM logframe and the 2013 Results Note for the Cook Islands:

1. Trial improved water and wastewater management systems that support sustainable water use and WUE
 - tested at community level as a precursor to upscaling
2. Establish an adequately resourced governance and management framework to support sustainable water management
 - mainstreaming IWRM into national policy and implementation plans
3. Sound governance to provide confidence in the transparency, accountability and credibility of decisions
 - establishing IWRM and related technical committees to oversee and advise on IWRM policies and activities
4. A stakeholder engagement strategy that raises awareness, increases participation and builds stakeholder capacity to support a sustainable IWRM plan
 - comprising communication, participation and capacity building strategies
5. Complete targeted scientific and technical studies to inform water and wastewater management
 - developing best management options and practices for wastewater and disaster (including drought) risk management

Example Project Achievements

- Trial and monitoring of ten household sanitation systems, contributing to development of two programmes; 1. a 'Waste Management and Sanitation Improvement Initiative' (WMI), running from March 2011 – June 2014, funded by NZAid/Aus to a total of \$4.7M, which included a 'pilot' project to upgrade 200 sanitation systems in Muri-Avana as well development of sanitation policy, education and awareness around animal waste management; improved legislation and enforcement and a baseline water quality monitoring programme; and 2. The Sanitation Upgrade Programme – an \$18M programme funded by NZAid , the EU and the CI Govt focussing on upgrading a further 1,000 sanitation systems on Rarotonga and Aitutaki between 2014 and 2018; along with improved monitoring and enforcement
- Preparation of a National Sanitation Policy endorsed by Government in 2013, complemented by a National IWRM Policy (expected to be endorsed early 2014) and a Water Supply Policy (expected to be endorsed later in 2014)

- Indicative reduction in organic loads at the household level in the Muri community from the installation of improved wastewater treatment and disposal systems. Estimated reduction in BOD load discharged to the environment of around 60%
- Establishment of an ongoing water quality monitoring programme, including groundwater assessments
- Strengthened engagement with and involvement of communities leading to a significantly increased awareness of water resource management issues.



Assessment of Impact Drivers and Assumptions

1. **Practical Outcome:** Lessons learned from demonstrations of IWRM and water use efficiency approaches replicated and mainstreamed into existing cross-sectoral, local, national and regional approaches to water management.

ID: Target audiences from Community to Cabinet are reached, and their knowledge about the IWRM and WUE is reflected in their priorities, plans, resource allocation and actions.

- An engagement was implemented to garner community support for IWRM activities and identify the appropriate sites for trialling improved wastewater systems
- The Cook Islands Government has endorsed a National Sanitation Policy, and should soon endorse a National IWRM Policy and National Water Supply Policy, each being linked to provide a whole-of-government approach to water management
- At interview we heard that the local community group in the trial area (Muri Environment Care) played an important and successful role in rallying community support for IWRM activities, and that – for example – the local group of female elders (“Mamas”) had lent support for a number of functions and events by preparing food, welcoming visitors and by creating a traditional ‘tivaevae’ quilt for the project team.

A: Target audiences accept the need for change and are prepared to act both individually and collectively.

- The main area of change to date has been in the acceptance of the need to act collectively at the Government level. This is reflected in three national policy initiatives
- The National Sanitation Policy is complemented by a 3 year implementation plan that will see the 10 improved wastewater systems trialled in the IWRM project installed in 1200 households.

A: Sufficient resources exist to underpin, sustain and upscale action.

- The sanitation implementation plan includes an upscaling strategy and schedule. Donor funds have been secured (around \$20m) to install 1200 improved wastewater units
- Upscaling, particularly where large capital expenditure is required, would be difficult without donor assistance. At interview we heard that such projects need to be at a scale that makes the transaction cost worthwhile; projects such as IWRM can consume considerable time on process rather than action
- The WATSAN (water, waste and sanitation) Unit of the Ministry of Infrastructure Cook Islands has developed and been strengthened through the life of the project and is now a focal and co-ordinating point for many of the main initiatives and projects in the areas of water resources, working alongside the respective Public Health, Marine and Environment Ministries.

A: The impacts of climate change can be forecasted and taken into account in planning.

- Climate change capacity has largely been built around future infrastructure development, including water supply demand
- Donor programs such as The Australian Government's Pacific Adaptation Strategy Assistance Program (PASAP) have helped to strengthen the institutional capacity of the Cook Islands to plan for the impacts of climate change.

2. **Indicator Outcome:** National and Regional adoption of IWRM and WUE indicator framework based on improved data collection and indicator feedback and action for improved national and regional sustainable development using water as the entry point.

ID: There is a demand for and acceptance of national and regional ecosystem indicators and reporting.

- As with other IWRM PICs, addressing indicators remains a work-in-progress. To date the work has been relevant to measuring current and planned (i.e. related to the sanitation implementation plan) project outputs and progress rather than on-ground impacts, which have a much longer time horizon and can be expensive to monitor and assess.

A: The benefits of a framework can be clearly articulated and understood by a range of stakeholders.

- While at interview the benefits were recognised, so too were the enormous challenges in the context of small island technical capacity
- A cautionary note was made at interview that it is important that technical skills be involved in the initial negotiations in establishing programs such as IWRM so that realistic (attainable) targets are set.

3. **Policy Outcome:** Institutional change and realignment to enact National IWRM plans and WUE strategies, including appropriate financing mechanisms identified and necessary political and legal commitments made to endorse IWRM policies and plans to accelerate Pacific Regional Action Plan actions.

ID: There is a national demand for and adoption of revised IWRM plans and WUE policies.

- The development and endorsement by Government of a National Sanitation Policy and the impending endorsement of National IWRM and Water Supply Policies reflects national need and demand

A: A clear roadmap to assist with IWRM implementation is available.

- The Implementation Plan that complements the National Sanitation Policy provides the roadmap.

A: APEX bodies are accepted as beneficial for IWRM and WUE planning and management.

- The proposed IWRM APEX body was not considered necessary by the Cook Islands government in light of its potential overlap with two existing APEX bodies, including the National Development Committee and National Infrastructure Committee. Between them these committees cover the key elements of IWRM.

4. **Capacity Outcome:** Improved institutional and community capacity in IWRM at national and regional levels.

ID: There is a strong willingness of national experts and other stakeholders to participate in training and twinning activities.

- The Cook Islands remains dependent on external (international) expertise, with many areas of technical skills remaining limited due to small island budget constraints
- The Lagoon Day has been used to provide an opportunity to demonstrate and share technical knowledge across agencies as well as across the Muri community
- NGOs, such as the Muri Environment Care Group, play an important role in bridging technical and local expertise and supporting ground-up support for IWRM activities
- Training was directed towards technical staff as the initial priority during IWRM but this will shift towards external parties and the community as a priority area of the National Policy.

A: The benefits of training and participation are understood and considered worthwhile.

- We heard at interview that the Cook Island locals are often disinterested in proposed concepts until they actually commence and offer tangible activities with which to engage. When this happens, enthusiasm increases greatly
- Considerable awareness raising effort has been undertaken at the community level, with great emphasis placed on school children.
- Awareness activities include TV clips and advertisements, essay and poetry competitions, knowledge tests and radio talks, both in English and the native tongue.

A: Sufficient resources are available to sustain interest and participation to the point where benefits are realised.

- The IWRM work has been considerably successful at leveraging over \$20 m in donor funds to help implement the National Water Sanitation Policy.

From this assessment of Impact Drivers and Assumptions, it appears that the most significant factor that will drive the Cooks Islands to achieve its higher level outcomes and impacts is garnering the critical mass of resources needed to implement best management wastewater systems and practices emerging from the current IWRM trials. There will also need to be a cohesive dialogue in the concurrent implementation of the three relevant national policies (Sanitation, IWRM and Water Supply).

Fiji

Integrated flood risk management in the Nadi River Basin

Project Goal

To improve flood preparedness and integrate land and water management planning within the Nadi Basin using an integrated flood risk management approach.

Project Purpose

Improved catchment resilience to flood impacts and better flood preparedness and management within the Nadi Basin.

Project Components

The following components were identified in the logframe and work-plan which encompasses the scope of the demonstration project:

1. Development of Integrated flood management plan and mainstreaming of integrated flood management into policy, planning and legislation framework
 - a. including review legislative requirements to enable integrated flood management within national IWRM framework and review of institutional arrangements for government administration of water resources
 - b. development of a national IWRM Plan incorporating best IWRM and WUE approaches
2. Implementation of sound governance to provide confidence in the transparency, accountability and credibility of decisions
 - a. through the establishment of the Nadi Basin Catchment Committee
3. Implementation of a stakeholder engagement strategy that raises awareness, increases participation, particularly of marginalised sectors, and build stakeholder capacity to support a sustainable flood management plan
 - a. incorporating communication, engagement and capacity building
4. Development of flood risk management tools to support the Flood Management Plan
 - a. including upgrading hydro-monitoring equipment and capacity, best management guides for land management, and mapping of riparian and other vegetated zones
 - b. development of floodplain inundation models
5. Conduct of targeted scientific and technical studies to inform flood management planning
 - a. assessment of flood mitigation and other catchment management activities and capacity
6. Commencement of implementation of the Nadi River Flood Management Plan
 - a. provision of support to the Nadi Basin Catchment Committee in its role in implementing the Flood management plan.

Example Project Achievements

- Establishment of a cross-sectoral Nadi Basin Catchment Committee using a best practice governance model and comprising commercial, community and government membership.

- Development and commencement of implementation of a Nadi Basin Flood Management Plan, involving agreement on roles and responses via an MOU signed by key government agencies
- Development of an improved flood disaster warning system
- Establishment and training of 28 Community Disaster Management Committees, overseeing 28 local disaster risk management plans. These committees helped ensure that no lives have been lost in any floods (at least two) since their establishment
- Implementation of an extensive community awareness and engagement strategy on IWRM principles and activities, including involvement of community and school groups
- Implementation of a save-the-tree and tree planting program for conservation area protection and rehabilitation, resulting in rehabilitation of around 60ha
- Best management practice training to farmers maximise WUE and upper catchment conservation.



(Looking down over the Nadi catchment)

Assessment of Impact Drivers and Assumptions

1. **Practical Outcome:** Lessons learned from demonstrations of IWRM and water use efficiency approaches replicated and mainstreamed into existing cross-sectoral, local, national and regional approaches to water management.

ID: Target audiences from Community to Cabinet are reached, and their knowledge about the IWRM and WUE is reflected in their priorities, plans, resource allocation and actions.

- An engagement strategy was developed and implemented, identifying mechanisms for communicating issues, outputs and outcomes to key stakeholders, particularly at the Nadi Basin scale
- The demonstration project involved praise-worthy levels of community engagement particularly in respect to the formation and ongoing management of community-based flood response groups

- The Nadi Flood Management Plan was endorsed at the highest government levels for implementation in Nadi and will serve as a model for other areas in Fiji (and potentially other PICs)

A: Target audiences accept the need for change and are prepared to act both individually and collectively.

- Local community members have been actively engaged in water resource management awareness activities
- Community-based flood response groups are chaired by and comprised of local volunteers – there appears no shortage of enthusiasm to volunteer for group membership.

A: Sufficient resources exist to underpin, sustain and upscale action.

- Upscaling action is planned under GEF Star Project support as part of Ridge 2 Reef / IWRM2
- The Nadi Basin Catchment Model provides an excellent platform for scaling up to ridge 2 reef activities, however interviews with key informants suggested that along with coastal zone management issues will come strong commercial interests and potentially political considerations
- The improved flood disaster warning system is being replicated in other regions of Fiji.

A: The impacts of climate change can be forecasted and taken into account in planning.

- Climate change planning activities have been undertaken through a related PACC project.
- Climate change variability data collated through the project is now used in the infrastructural and development planning e.g. the new four lane highway

2. **Indicator Outcome:** National and Regional adoption of IWRM and WUE indicator framework based on improved data collection and indicator feedback and action for improved national and regional sustainable development using water as the entry point.

ID: There is a demand for and acceptance of national and regional ecosystem indicators and reporting.

- As noted in the Mid Term Review, the Indicator Framework of the overall Pacific IWRM project has been problematic at both the national demonstration project and national policy level. Fiji has experienced similar issues.

A: The benefits of a framework can be clearly articulated and understood by a range of stakeholders.

- Many of the interviewees understood the need for simple indicators that could be readily monitored at low cost.

3. **Policy Outcome:** Institutional change and realignment to enact National IWRM plans and WUE strategies, including appropriate financing mechanisms identified and necessary political

and legal commitments made to endorse IWRM policies and plans to accelerate Pacific Regional Action Plan actions.

ID: There is a national demand for and adoption of revised IWRM plans and WUE policies.

- A National Water Resources Management & Sanitation Policy has been drafted but is yet to be endorsed by government
- Interviewees described how excellent coordination arrangements, including among government agencies, at the Nadi Basin level are less successful at the national level where there are many competing demands for government attention. The flood risks associated with the Nadi Basin have provided the impetus for action.

A: A clear roadmap to assist with IWRM implementation is available.

- The IWRM planning documents for the Nadi Basin provide a basin level roadmap that has not been scaled up to national level

A: APEX bodies are accepted as beneficial for IWRM and WUE planning and management.

- The project did not establish a national level APEX body. There is a National Water Committee which was described as performing a low level of activity.

4. **Capacity Outcome:** Improved institutional and community capacity in IWRM at national and regional levels.

ID: There is a strong willingness of national experts and other stakeholders to participate in training and twinning activities.

- Training particularly in respect to flood risk management has been exemplary in the Nadi Basin at both community and technical levels.

A: The benefits of training and participation are understood and considered worthwhile.

- Interviews with community members and leaders involved in the local flood risk response groups showed a strong willingness to participate in training. The benefits of the training have been demonstrated during at least two floods since 2011.

A: Sufficient resources are available to sustain interest and participation to the point where benefits are realised.

- Interviews suggested that upscaling IWRM activities will be dependent on donor funds
- continuation of the local flood risk management groups will probably be sustained by local volunteers and community acceptance that the system in place does save lives.

From this assessment of Impact Drivers and Assumptions, it appears that the most significant factor that will drive Fiji to achieve its higher level outcomes and impacts is demonstrated benefits will be government commitment to upscaling activities without donor dependence, both with respect to extending Nadi Basin activities into and beyond the coastal zone and to replicating activities elsewhere across Fiji.

Federated States of Micronesia

Ridge to Reef: Protecting Water Quality from Source to Sea in the Federated States of Micronesia

Project Purpose

Improvement of drinking water quality and significant reduction in pollutants entering the fresh and marine water around Pohnpei and Chuuk States.

Project Components

1. Watershed protection and management
 - Nett watershed forest reserve boundary line survey and legally demarcated
 - capacity building for improved watershed management in Nett municipality
 - informing sustainable watershed management in Nett municipality
 - management plan development for the Nett watershed forest reserve
 - extension of examples of best practice and lessons learned from Nett watershed in Chuuk State
2. Protecting fresh and marine water quality and quantity
 - survey pollutant sources
 - strengthening of efforts to reduce sedimentation and climate proof water supply system
 - building capacity of pig farmers in Nett municipality to improve waste management techniques for reduced organic pollution of the Nanpil River
3. Improving water quality and quantity monitoring and planning
4. Policy and planning for IWRM and water use efficiency in the Federated States of Micronesia



Example Project Achievements

- A National Water Summit was held in 2011, during which time the FSM President and four state governments endorsed a framework national water and sanitation policy and Implementation Plan and established a National Water Task Force as the lead body for planning and coordinating for water and sanitation in the FSM.
- Nett Municipality has principally endorsed the establishment of its watershed Forest Reserve to protect 1,700 h of upland forest critical to the resilience of the Nanpil water as the main public water source for over 70% of households connected to the public utilities system.
- Working with the project partner CSP and sakau farmers, a 70% reduction in prevalence of new upland sakau clearing has been achieved. The “grow low” campaign is focused on educating farmers about the importance of the forest while demonstrating an economically practical sustainable option to destructive upland sakau clearings.
- Baseline sanitation and pollutant assessments of 3 major river systems in Nett have been undertaken. Pollutant sources, including 70 from human and animal waste requiring remediation, have been mapped. Some remediation work has commenced.
- Community-based projects are underway with resource owners and traditional leaders taking an active role to demonstrate community-based solutions to threats on community water resources.

Assessment of Impact Drivers and Assumptions

1. **Practical Outcome:** Lessons learned from demonstrations of IWRM and water use efficiency approaches replicated and mainstreamed into existing cross-sectoral, local, national and regional approaches to water management.

ID: Target audiences from Community to Cabinet are reached, and their knowledge about the IWRM and WUE is reflected in their priorities, plans, resource allocation and actions.

- The FSM President and four state governments signed a resolution at the 2011 National and State Water Summit, and in doing so endorsed a framework national water and sanitation policy and Implementation Plan and established a National Water Task Force.
 - The goal of the policy is to create an environment at the national level, in which collaboration and partnership in addressing water resources and watershed management issues, between all stakeholders and at all levels is fostered and encouraged, and to enhance the mainstreaming of IWRM and WUE principles into national and state development planning.
- The demonstration project involved a good level of community engagement and awareness activities. The Pohnpei Utility Company has built an educational hut to educate visitors to the Nanpil dam.
- The Nett Municipality has principally endorsed the establishment of its watershed Forest Reserve.

A: Target audiences accept the need for change and are prepared to act both individually and collectively.

- The “grow low” campaign, working with sakau farmers, is achieving measurable results in reduced clearing of uplands.
- Community-based projects are underway with resource owners and traditional leaders taking an active role.

A: Sufficient resources exist to underpin, sustain and upscale action.

- The “grow low” campaign is focused on educating farmers about the importance of the forest while demonstrating an economically practical sustainable option to destructive upland sakau clearings.
- The Framework National Water and Sanitation Policy states (s3.5.4) “Each State should work to mobilize necessary resources, capacities and services, as well as develop legal, financial and economic arrangements, including the adoption of a water sector investment plan aimed at meeting the national targets identified.”

A: The impacts of climate change can be forecasted and taken into account in planning.

- Unable to comment.

2. **Indicator Outcome:** National and Regional adoption of IWRM and WUE indicator framework based on improved data collection and indicator feedback and action for improved national and regional sustainable development using water as the entry point.

ID: There is a demand for and acceptance of national and regional ecosystem indicators and reporting.

- The Framework National Water and Sanitation Policy states (s3.5.4) “States should cooperate to identify appropriate water resource management targets and performance indicators, and prioritize State and National freshwater and coastal water quality issues.”

A: The benefits of a framework can be clearly articulated and understood by a range of stakeholders.

- Unable to comment.

3. **Policy Outcome:** Institutional change and realignment to enact National IWRM plans and WUE strategies, including appropriate financing mechanisms identified and necessary political and legal commitments made to endorse IWRM policies and plans to accelerate Pacific Regional Action Plan actions.

ID: There is a national demand for and adoption of revised IWRM plans and WUE policies.

- The endorsed Framework National Water and Sanitation Policy creates this demand.

A: A clear roadmap to assist with IWRM implementation is available.

- At the national level the endorsed Framework National Water and Sanitation Policy sets the expectations for a roadmap.

A: APEX bodies are accepted as beneficial for IWRM and WUE planning and management.

- The FSM President and four state governments signed a resolution at the 2011 National and State Water Summit, and in doing so endorsed the establishment of a National Water Task Force, which by implication can be accepted as beneficial.

4. **Capacity Outcome:** Improved institutional and community capacity in IWRM at national and regional levels.

ID: There is a strong willingness of national experts and other stakeholders to participate in training and twinning activities.

- Unable to comment.

A: The benefits of training and participation are understood and considered worthwhile.

- Unable to comment.

A: Sufficient resources are available to sustain interest and participation to the point where benefits are realised.

- Unable to comment.

From this assessment of Impact Drivers and Assumptions, it appears that the most significant factor that will drive FSM to achieve its higher level outcomes and impacts is work of the National Water Task Force in completing and implementing the National Comprehensive Water and Sanitation Policy and Water Sector Investment Plan.

Kiribati

No title, as no demonstration project was pursued

Project Goal

Not applicable

Project Purpose

Not applicable

Project Components

Like Papua New Guinea, Kiribati did not design and implement a demonstration project as originally envisaged during the IWRM project development stage. However, unlike Papua New Guinea, Kiribati continued to participate in IWRM activities, particularly through participation in Regional Steering Committee meetings. For this reason, this report does not follow the format used for other Annex 6 country reports.

IWRM planning phase

- Kiribati participated in the Diagnostic and Hotspot report activities which were forerunners to the IWRM Prodoc development.
- Interviews suggest that Kiribati staff at the time of the Prodoc development were over-committed to other major (multi-million dollar) priority projects. Kiribati lacked the capacity to handle the number of projects and potential projects on offer. The Kiribati Adaptation Project(KAP) was one that took considerable attention away from other opportunities. It is now in phase III.
- Kiribati did receive an extension to deliver a demonstration project Prodoc, but in the end the other countries could not wait any longer. Kiribati was holding them up, and so a decision was mutually made not to progress with a Kiribati demonstration project.

IWRM-like activities pursued by Kiribati

- The KAP comprised many components overlapping with IWRM.
- Kiribati has prepared and endorsed a Water Policy and implementation plan (2009) and a Sanitation Policy and implementation plan (2010). These incorporate the principles of IWRM, for example including landuse.
- Ministry of Public Works & Utilities (MPWU) has prepared an Infrastructure Plan for water and sanitation and a Kiribati Joint Implementation Plan on Disaster Risk Reduction and Climate Change.
- Kiribati is presently reviewing the 1977 Public Utilities Board (PUB) Act and would like to develop a Water Act which would include water and sanitation and incorporate references to PUB. The Water Act would cover Tarawa (urban) as well as the outer islands.

Interaction with the IWRM Regional Steering Committee (RSC)

- The Water Superintendent (WS) of MPWU has attended 3 meetings of the RCS. The benefits of attending include:

- being able to benchmark where Kiribati is up to in policy development even though not having the resources of a demonstration project; and
- learning how to implement major projects, drawing on lessons from other countries, especially in respect to the compost toilets (Tuvalu) and dry litter piggeries (RMI).
- WS has kept up to date with the regional project by
 - attending RSC (see above)
 - inclusion in emails from the PCU to RSC members
 - contact with the RCU with respect to specific questions
 - remaining in contact with fellow graduates of the IWRM post-graduate training which she completed.

Capacity building

- The depth of IWRM capacity and capability in Kiribati is very limited. One of the Environmental Health water quality team and a public awareness officer have some awareness of IWRM principles. Because of this the public awareness officer has been given the role of project officer for the Bonriki Inundation project.

While Kiribati did not participate in the IWRM project as a demonstration site country, the benefits of ongoing interaction with other participating countries demonstrates the value of transparent and inclusive IWRM communication. This may serve as a model for future participation by PICs not fortunate enough to have demonstration projects themselves.

Nauru

Enhancing water security for Nauru through better water management and reduced groundwater contamination

Project Goal

Sustainable Integrated Water and Wastewater Management in Nauru

Project Purpose

Position Nauru to manage its wastewater and water resources in a sustainable manner, incorporating climate change adaptation

Project Components

The following components were identified in the logframe and work-plan which encompasses the scope of the demonstration project:

1. Establish an adequately resourced governance and management framework to support sustainable water management
 - a. mainstreaming IWRM into national policy through the development of a national IWRM policy and ensuring there is an enabling environment and capacity to implement it
2. Sound governance to provide confidence in the transparency, accountability and credibility of decisions
 - a. establishing an IWRM and related technical committees to oversee and advise on IWRM policies and activities
3. A stakeholder engagement strategy that raises awareness, increases participation, particularly of marginalised sectors, and builds stakeholder capacity to support a sustainable IWRM plan
 - a. comprising communication, participation and capacity building strategies
4. Complete targeted scientific and technical studies to inform water and wastewater management
 - a. developing best management options and practices for wastewater and disaster (including drought) risk management
5. IWRM plan integrated into national policies and legislations
 - a. Including monitoring against plan indicators and secretariat support for IWRM Committee activities

Example Project Achievements

- National IWRM Water and Sanitation Policy endorsed by Cabinet in February 2012
- National IWRM Plan developed and submitted to Cabinet for endorsement in September 2013
- The Project Steering Committee (APEX Body), Water Technical Committee and Water Unit developed and endorsed by Cabinet in November 2011

- A National Community Based Organisation (NCBO) comprised of the leaders of the 15 Districts developed to aid communication and raise awareness of water and sanitation issues and project results
- Piloting of three approaches (1 composting toilet and 2 septic systems) to provide households with better wastewater management
- Development of the IWRM Plan identifying a range of strategies to reduce vulnerabilities, with the IWRM Project Manager embedded as an integral member of the Water Unit to directly implemented activities components of the IWRM Plan.



(Contractor positioning the conventional Septic Tank mold at the demonstration community in Ewa. 22/02/2011)

Assessment of Impact Drivers and Assumptions

1. **Practical Outcome:** Lessons learned from demonstrations of IWRM and water use efficiency approaches replicated and mainstreamed into existing cross-sectoral, local, national and regional approaches to water management.

ID: Target audiences from Community to Cabinet are reached, and their knowledge about the IWRM and WUE is reflected in their priorities, plans, resource allocation and actions.

- An engagement strategy was developed and continues to be implemented, identifying mechanisms for communicating issues, outputs and outcomes to key stakeholders across Nauru
- The Nauru Government has endorsed a National IWRM Water and Sanitation Policy and Implementation Plan, and implementation of these have commenced
- The level of community engagement is significant, with leaders of Nauru's 15 Districts being represented on the National Community Based Organisation, which was formed

specifically for the purpose of aiding communication and raising awareness of water and sanitation issues and project results across Nauru

A: Target audiences accept the need for change and are prepared to act both individually and collectively.

- While trialling of compost toilets and improved septic systems is a key part of the IWRM project in Nauru, the main area of change to date has been in the acceptance of the need to act collectively at the Government level. This is reflected in the National Policy and Implementation Plan
- APEX bodies have existed for water management previously in Nauru, however the IWRM project has succeeded in raising the need for environmental issues to be included – this is reflected in the Plan, Policy and APEX body representation
- The school system is an important part of the community engagement process, and at least one school is involved in trialling and demonstrating compost toilets

A: Sufficient resources exist to underpin, sustain and upscale action.

- Nauru's Prodoc/Mid-Term Report included a detailed upscaling strategy.
- The Water Policy has influenced budget and human resource allocations within the Water Unit - a part of the Department of Commerce, Industry and Environment (CIE) - but to a lesser degree in related agencies at this stage
- Upscaling action is planned under GEF Star Project support as part of Ridge 2 2Reef / IWRM2
- Some aspects of upscaling, particularly where large capital expenditure is required may be difficult without donor assistance. Such assistance is being sought, i.e. through JICA

A: The impacts of climate change can be forecasted and taken into account in planning.

- CIE coordinates a range of donor aid projects related to water and sanitation, including the Pacific Adaptation to Climate Change (PACC) project.
- A new High Level Climate Change Committee which reports to Cabinet was created in 2013. The Project Steering Committee of the IWRM project helps ensure climate change issues are coordinated with and contextualise activities of the IWRM project.

2. **Indicator Outcome:** National and Regional adoption of IWRM and WUE indicator framework based on improved data collection and indicator feedback and action for improved national and regional sustainable development using water as the entry point.

ID: There is a demand for and acceptance of national and regional ecosystem indicators and reporting.

- As with other IWRM PICs, addressing indicators remains a work-in-progress. To date the work has been relevant to only one district. The need for national indicators is reflected in the National Policy and Implementation Plan.
- We heard at interview that the indicators and initial baseline work are biased towards biophysical parameters and underdone on qualitative parameters important for monitoring policy implementation and impact.

A: The benefits of a framework can be clearly articulated and understood by a range of stakeholders.

- Those at interview understood the need for quantitative and qualitative indicators that could be readily monitored at low cost.

3. **Policy Outcome:** Institutional change and realignment to enact National IWRM plans and WUE strategies, including appropriate financing mechanisms identified and necessary political and legal commitments made to endorse IWRM policies and plans to accelerate Pacific Regional Action Plan actions.

ID: There is a national demand for and adoption of revised IWRM plans and WUE policies.

- The development and endorsement by Government of a National IWRM Water and Sanitation Policy is a distinguishing feature of the IWRM project in Nauru

A: A clear roadmap to assist with IWRM implementation is available.

- The Implementation Plan that complements the National Policy provides the roadmap.

A: APEX bodies are accepted as beneficial for IWRM and WUE planning and management.

- The excellent APEX body and technical coordination arrangements at Government level, including arrangements for community engagement, is also a distinguishing feature of the project.

4. **Capacity Outcome:** Improved institutional and community capacity in IWRM at national and regional levels.

ID: There is a strong willingness of national experts and other stakeholders to participate in training and twinning activities.

- Nauru has participated enthusiastically in regional coordination meetings (i.e. RSC meetings).
- The timing of the initial graduate certificate training did not suit Nauru staff, who found they had no time to commit to course assignment obligations at the same time as having to perform the arduous task of designing and implementing a complex IWRM project.
- Training was directed towards CIE technical staff as the initial priority during IWRM but this will shift towards external parties and the community as a priority area of the National Policy.

A: The benefits of training and participation are understood and considered worthwhile.

- Training has been embedded as a national priority under the National Policy
- Considerable awareness raising effort has been undertaken at the community level during events such as World Water Day, World Food Day and World Environment Day.

A: Sufficient resources are available to sustain interest and participation to the point where benefits are realised.

- The National Policy will ensure that many elements of IWRM will endure irrespective of donor funds. As one interviewee put it:

“Participation in IWRM has changed our thinking about issues. The Water and Sanitation Policy has opened up a window to address important issues of wastewater and other environmental concerns.”

From this assessment of Impact Drivers and Assumptions, it appears that the most significant factor that will drive Nauru to achieve its higher level outcomes and impacts is demonstrating benefits to government sufficient to provide confidence that there is value to upscaling activities without donor dependence.

Niue

Using Integrated Landuse, Water Supply and wastewater Management as a Protection Model for the Alofi Town Groundwater Supply and Nearshore Reef Fishery

Project Goal

Sustainable protection and management of Niue groundwater resources and reef fishery for improved and sustainable livelihoods, ecosystems and environment.

Project Purpose

To develop an integrated resource management system that protects the groundwater aquifer from contamination and improves water resources management by users.

Project Components

1. Ongoing sound, integrated, transparent governance of Niue's water resource
2. Water legislation, policy and planning measures
3. Improved management of hazardous and waste products to reduce risks of ground water contamination
4. Improved management of non-household chemicals, effluents and fuels
5. Improved water supply management to reduce peak demands and risk of saline up-coming
6. Improved water resource management measures
7. Communication, education and awareness program
8. Delivery of the Niue GEF IWRM demonstration project.



Example Project Achievements

- Passing of the Water Act in 2012. In developing the Act, one successful workshop on water issues was held with Cabinet and a one-day workshop with the village committee enabled villagers and government authorities to connect. This resulted in the Water Act passing without objections.
- Provided assistance with training, purchase of consumables and upgrading of the water quality testing laboratory.
- Developed village management plans for Alofi North and Alofi South, and villagers working together with government departments to implement the plans.
- Held practical workshops in villages leak detection, repairing leaks and water testing.
- New water reservoir installed and replaced existing leaking tank.
- A national collection and disposal mechanism has been established for waste oil, and a hospital waste management plan has been developed.
- Currently reviewing the Building Code to improve septic tank design, water saving devices and rainwater harvesting.
- Completed the IWRM post-graduate training.

Assessment of Impact Drivers and Assumptions

1. **Practical Outcome:** Lessons learned from demonstrations of IWRM and water use efficiency approaches replicated and mainstreamed into existing cross-sectoral, local, national and regional approaches to water management.

ID: Target audiences from Community to Cabinet are reached, and their knowledge about the IWRM and WUE is reflected in their priorities, plans, resource allocation and actions.

- Through the National Water Steering Committee, relevant government departments are engaged in IWRM activities. Good relationships exist between government departments, and the benefits of teamwork and sharing knowledge have been seen.
- The Water Act passing without objections because of the awareness discussions and consultations between government authorities and villagers before passing the Act.
- Awareness of the importance of water resource management for the people of Niue has increased, and in particular in the area of water conservation demand management, and water use efficiency.

A: Target audiences accept the need for change and are prepared to act both individually and collectively.

- Following the success of the bottom-up approach to introduce and subsequently pass the Water Act 2012 without objection, an approach that enabled villagers and government authorities to connect, other government departments are considering this approach.
- In developing and implementing Village Water Management Plans, the villagers have participated in water system maintenance and village clean-up activities.

A: Sufficient resources exist to underpin, sustain and upscale action.

- In implementing its Village Water Management Plan, the village of Alofi North has secured government funding to complete the water supply system at Fou relocation village.
- The National budget has approved IWRM Project Management Unit staff salary for the 2013/2014 year.
- Co-funding from New Zealand Aid Programme has been secured for a reticulated water system.
- In 2013, Niue opened a rainwater tank manufacturing facility, funded by the EU, the Government of Australia and the GEF.

A: The impacts of climate change can be forecasted and taken into account in planning.

- Unable to comment.

2. **Indicator Outcome:** National and Regional adoption of IWRM and WUE indicator framework based on improved data collection and indicator feedback and action for improved national and regional sustainable development using water as the entry point.

ID: There is a demand for and acceptance of national and regional ecosystem indicators and reporting.

- National water, sanitation and waste indicator framework has been embedded in the National IWRM Plan.
- The National Drinking-water Safety Plan received a successful audit in 2012, and quarterly water quality testing by Health, and at the community level continues, with the aim of 90% of the population of Alofi receiving safe water supply.

A: The benefits of a framework can be clearly articulated and understood by a range of stakeholders.

- A sustainable programme M&E mechanism for the National Water and Sanitation Committee has been drafted for Cabinet endorsement.

3. **Policy Outcome:** Institutional change and realignment to enact National IWRM plans and WUE strategies, including appropriate financing mechanisms identified and necessary political and legal commitments made to endorse IWRM policies and plans to accelerate Pacific Regional Action Plan actions.

ID: There is a national demand for and adoption of revised IWRM plans and WUE policies.

- The Niue Water Act 2012 provides the framework for regulations to address WUE, allocations and water resource protection. It provides for the development of a national Water Resource Management Plan and integration of water and sanitation management across government and other stakeholders.

A: A clear roadmap to assist with IWRM implementation is available.

- The National Water, Sanitation and Waste Strategy is the roadmap to assist with IWRM implementation.
- At the local village level, the Village Water Management Plans provide the roadmaps.

A: APEX bodies are accepted as beneficial for IWRM and WUE planning and management.

- The Niue Water Steering Committee includes representation of the important government agencies and key stakeholders. This committee is responsible for reviewing and endorsing relevant strategies and implementation plans, and is the route to Cabinet.

4. **Capacity Outcome:** Improved institutional and community capacity in IWRM at national and regional levels.

ID: There is a strong willingness of national experts and other stakeholders to participate in training and twinning activities.

- Three staff gained Australian Professional Technical College qualifications, and three new trainee staff have joined the Water Division team.
- The IWRM Focal Point completed the IWRM post-graduate certificate.
- Capacity building workshops in leak detection, repairing leaks and water testing have occurred at village and department levels.

A: The benefits of training and participation are understood and considered worthwhile.

- The Village Water Management planning process was replicate in the three pilot communities of the EU USP-GCCA Programme.
- Following training, villagers now detect leaks and make repairs.

A: Sufficient resources are available to sustain interest and participation to the point where benefits are realised.

- The National budget has approved IWRM Project Management Unit staff salary for the 2013/2014 year. Outside of national budget allocations, and beyond the commitment to the 2013/2014 year, it is difficult to see how Niue plans to sustain activities without continued GEF and similar support.

From this assessment of Impact Drivers and Assumptions, it appears that the most significant factor that will drive Niue to achieve its higher level outcomes and impacts is government direction and encouragement, and government assistance to secure financial support for implementing Village-Water Management Plans that not only benefit the village, but also the common good groundwater resource for Niue. In turn and in time, the results/benefits of the local-level actions will provide grounded evidence of the value in having a government endorsed National IWRM plan.

Republic of Palau

Ngerikiil Watershed Restoration for Improved Water Quality

Project Goal

To promote proper watershed and integrated management practices in the Ngerikiil watershed. The promotion of proper watershed practices will reduce land degradation while preserving ecosystem stability, functions and services such as soil and watershed protection, water purification and nutrient retention.

Project Purpose

By improving the quality of water in the Ngerikiil River the project will improve water quality, decrease the amount of chemicals needed to treat the water, and establish effective institutional arrangements to protect that Ngerikiil watershed.

Project Components

1. Improvement of surface water quality in the Ngerikiil watershed
2. Drainage mitigation
3. Improvement of biodiversity bioindicators
4. Policy/awareness
5. Documentation (Replication Strategy)
6. Establish long-term sustainable governance body
7. Successfully deliver the Palau demonstration project
8. National Policy and legal reforms for IWRM



Example Project Achievements

- Managing impacts to the Ngerikill watershed by land rehabilitation, establishing buffer zones, and reducing pollution sources through change in agricultural practices.
- Completed assessment and mapping of pollution sources, and an assessment of stormwater drainage from the Compact road.
- Established a novel avian bioindicator approach for monitoring change in environmental quality, and trained EQPB staff in the approach.
- Established a Ngerikill watershed water quality monitoring programme and database.
- Completed Palau's first watershed management plan for the Ngerikill in Airai State, and allocation from the national budget to implement the plan.
- Received high-level political endorsement of the National Water Policy by the President of Palau.
- Raising community and political awareness and support for IWRM through a National Water Summit and extensive on-going outreach activities such as Earth Day and World Water Day.
- Established an energetic cross-agency cross-project network of early-to-mid career environment project managers, fostering strong connections between IWRM, energy, sustainable land management and conservation, also filling lead agency (EQPB) capability and capacity gaps.

Assessment of Impact Drivers and Assumptions

1. **Practical Outcome:** Lessons learned from demonstrations of IWRM and water use efficiency approaches replicated and mainstreamed into existing cross-sectoral, local, national and regional approaches to water management.

ID: Target audiences from Community to Cabinet are reached, and their knowledge about the IWRM and WUE is reflected in their priorities, plans, resource allocation and actions.

- An engagement strategy was developed and implemented, identifying mechanisms for communicating issues, outputs and outcomes to key stakeholders.
- At the demonstration project location (Airai State) there was a high level of community engagement throughout the project, championed by the project steering committee led by the Governor of the State.
- The Belau Watershed Alliance, a State-based body with an objective to sustain water quality and quantity, is seen as possibly having a role in IWRM replication.
- The demonstration project studies and achievements have resulted in national endorsement of Palau's first watershed management plan for the Ngerikill in Airai State, and allocation from the national budget to implement the plan.
- The collaborative nature of IWRM practice stimulated the establishment of the National Water Committee, and subsequently drafting of Palau's National Water Policy.
- Two national water summits provided the opportunity for community and government to engage in, and learn about IWRM.
- Every opportunity is taken to raise community awareness about IWRM, in its own right and also in collaboration with sustainable land use management, conservation and energy initiatives.

A: Target audiences accept the need for change and are prepared to act both individually and collectively.

- We heard of the importance of national and local champions to encourage change.
- The Governor of the State of Airai and her State government accepted the need for change, as illustrated by the preparation of the 5-Year Airai State Watershed Management Plan, 2013–2017.
- The State of Airai has taken the preventative action of putting on hold the leasing out of land in the Ngerikill watershed until the boundary of the watershed has been defined.
- The National Government of Palau accepted the need for change, by providing a first year budget allocation of \$200,000 for sole purpose of the protection and preservation of water source and its ecosystem in Airai, which provides 80% of Palau's potable water.
- The National Water Committee accepted the need for change, as illustrated by their drafting of Palau's National Water Policy.

A: Sufficient resources exist to underpin, sustain and upscale action.

- Upscale action includes studying the remaining three of four watersheds in Airai State (the Ngerikill being most studied already) as outlined in the 5-Year Airai State Watershed Management Plan. We heard that possibly the Belau Watershed Alliance could have a role in IWRM replication to the other States, but heard nothing about budgets and resources to support this.
- For the State of Airai, a national budget allocation will support the implementation of the 5 year Airai State Watershed Management Plan. An IWRM Compliance/Watershed Officer for Airai is now in place.

A: The impacts of climate change can be forecasted and taken into account in planning.

- The 5 year Airai State Watershed Management Plan includes a discussion on the effects, and implications of climate change and watershed management responses, and includes a climate change objective relating to food production.
- The threat caused by climate change is acknowledged in Palau's National Water Policy, and management plans are expected to address the impacts of and build resilience to climate change.

2. **Indicator Outcome:** National and Regional adoption of IWRM and WUE indicator framework based on improved data collection and indicator feedback and action for improved national and regional sustainable development using water as the entry point.

ID: There is a demand for and acceptance of national and regional ecosystem indicators and reporting.

- The demonstration project has established a long-term water quality and quantity monitoring programme for the Ngerikill River, a database of river water quality and

Koror-Airai water treatment data. It is not clear about analysis, interpretation and reporting of this data.

- Established a novel avian bioindicator approach for monitoring change in environmental quality, and trained EQPB staff in the approach.
- Work began on a National set of indicators; a draft was prepared but was not completed because technical support from RCU interrupted.
- Palau's National Water Policy includes establishment, reviewing and enforcement of appropriate water quality standards for the various types of water, and includes the expectation of appropriate monitoring against these standards, and sharing of the results with relevant stakeholders.
- Palau's National Water Policy calls for measures to quantify and track water use efficiency against targets.

A: The benefits of a framework can be clearly articulated and understood by a range of stakeholders.

- Unable to comment

3. **Policy Outcome:** Institutional change and realignment to enact National IWRM plans and WUE strategies, including appropriate financing mechanisms identified and necessary political and legal commitments made to endorse IWRM policies and plans to accelerate Pacific Regional Action Plan actions.

ID: There is a national demand for and adoption of revised IWRM plans and WUE policies.

- The former President of the Republic of Palau, Johnson Toribiong, formally expressed his full endorsement of the Water Policy for the Republic of Palau.

"The outcome of this comprehensive Water Policy for the Republic of Palau will serve as a clear indicator and important guide for our nation's future economic and sustainable development based on clean and safe water that is essential for the health of our people, ecosystem and economy."

A: A clear roadmap to assist with IWRM implementation is available.

- For the State of Airai, the 5-Year Airai State Watershed Management Plan includes a 5-Year action plan.
- At the national level, the Water Policy for the Republic of Palau sets the expectations for a roadmap, and the implementation plan is in draft form.

A: APEX bodies are accepted as beneficial for IWRM and WUE planning and management.

- Increased multi-sectoral engagement in IWRM activities stimulated the need to establish a national APEX Water Body, a subcommittee under the National Environmental Planning Council. The body will coordinate future water projects.

4. **Capacity Outcome:** Improved institutional and community capacity in IWRM at national and regional levels.

ID: There is a strong willingness of national experts and other stakeholders to participate in training and twinning activities.

- An energetic cross-agency cross-project network of early-to-mid career environment project managers has been established, fostering strong connections, sharing and learning between IWRM, energy, sustainable land management and conservation in areas of engagement, policy and practice.
- Capacity building activities have occurred at community, school and professional levels. Examples include community awareness activities during Earth Day and World Water Day, revegetation, bioindicator field surveys, water quality surveys, erosion and sediment control, watershed planning and management.
- National staff have attained a graduate certificate in IWRM.
- The Micronesia Challenge, a commitment by the Federated States of Micronesia, the Republic of the Marshall Islands, the Republic of Palau, Guam, and the Commonwealth of the Northern Marianas Islands to preserve the natural resources that are crucial to the survival of Pacific traditions, cultures and livelihoods, provides the opportunity to share, learn and reflect on progress between the countries.

A: The benefits of training and participation are understood and considered worthwhile.

- Mentors of the IWRM team recognised the value of on-going upskilling, including furthering tertiary education.
- We heard that more/earlier training in financial reporting would have been beneficial. More generally, we heard that a national capacity building project in reporting is being planned.

A: Sufficient resources are available to sustain interest and participation to the point where benefits are realised.

- Mentors were also aware of the dilemma created with on-going education, taking key staff away from projects, and the importance of attracting the people back to Palau.
- Retention of key staff, and in particular their commitment to the outcomes for Palau, their networks, technical and institutional knowledge, is acknowledged.

From this assessment of Impact Drivers and Assumptions, it appears that the most significant factor that will drive Palau to achieve its higher level outcomes and impacts is state-level champions with state-level watershed management plans that individually and collectively contribute to meeting the expectations of the National Water Policy. Retention of existing committed technical experts and development of additional experts to support replication throughout Palau will be essential.

Republic of Marshall Islands

Integrated Water and Land Management for the Sustainable Use of the Laura Lens

Project Goal

To strengthen national and local coordination for water resource management with a focus on reducing stress on the Laura Water Lens and planning the longer term sustainable use of the Laura Water Lens.

Project Purpose

The Laura water lens is a critical resource in that it supplies a significant portion of fresh water for the Majuro Atoll population, and yet it faces multiple threats and has not been managed very effectively or sustainably over the years. It is therefore imperative and critical that steps be taken to introduce more sustainable use of water lens.

Project Components

1. Strengthened coordination for integrated land and water management at Laura
 - a. Revitalization of the National Water Resource Management Task Force and establishment of a Laura Integrated Water & Land Management Advisory Committee
 - b. Development of community engagement and capacity building strategies
2. Identification of key threats and management issues
 - a. Reviews of sanitation and waste management systems and status of water and land resources in Laura
 - b. Spatial mapping of potential pollution sources
3. Development of a Laura Lens integrated water and land resource management plan
 - a. Identification of priority management interventions and costed actions
 - b. Endorsement of the plan by RMI cabinet
4. Targeted stress reduction demonstrations for the Laura Lens
 - a. Development of a septic monitoring, collection and disposal program
 - b. Demonstration of compost toilets and their benefits
 - c. Demonstration of dry litter pig farms
5. Enhanced awareness of Laura Water Lens
 - a. Development and promotion of a learning centre supplemented by web based information
 - b. Implementation of training and education activities
 - c. Conduct of a National Water Summit
6. IWRM policy and plan development
 - a. Draft national integrated water policy and legal reforms



(Laura Lens Learning Centre)

Example Project Achievements

- Established 21 dry litter waterless piggery demonstration sites across Laura farms (only 1 had been planned for)
- Evidence of reduced smell and nitrogen leaching from piggery farms utilising dry litter pens
- Negotiation with the RMI Bank to provide micro loans for establishing dry litter piggeries (with one uptake to date)
- 40 percent of all overloaded septic systems in Laura have been remediated
- Establishment of the National IWRM Task Force
- Establishment of the Laura Lens Community Advisory Committee to oversee local implementation of IWRM activities
- Establishment of the Laura Lens Learning Centre (see photo above)
- Draft Water and Sanitation Bill well progressed towards Cabinet approval (some amendments still required at the time of the TE assessment).

Assessment of Impact Drivers and Assumptions

1. **Practical Outcome:** Lessons learned from demonstrations of IWRM and water use efficiency approaches replicated and mainstreamed into existing cross-sectoral, local, national and regional approaches to water management.

ID: Target audiences from Community to Cabinet are reached, and their knowledge about the IWRM and WUE is reflected in their priorities, plans, resource allocation and actions.

- An engagement strategy was developed and implemented, identifying mechanisms for communicating issues, outputs and outcomes to key stakeholders

- At the demonstration project location (Laura Lens) there was a high level of community engagement throughout the project, championed by the project steering committee supported by RMI's First Lady
- While priorities for the management of the Laura Lens have been identified, this has not been translated into a completed IWRM Plan. The hold-up has been in part due to the desire to nest the plan under national policy (still to be ratified by Cabinet) as well as by community desire to focus on immediate stress reduction actions, such as the demonstration and adoption of dry litter piggeries and compost toilets
- A National Water Summit was convened in 2011 and this provided the opportunity for community and government to engage in and learn about IWRM
- The establishment of the Laura Lens Learning Centre provided and will continue to provide a focal point for extending IWRM messages to the Laura and wider Majuro Atoll communities.

"Engagement has been the hallmark of IWRM here in the Marshalls!"

A: Target audiences accept the need for change and are prepared to act both individually and collectively.

- Local demand for action saw one planned dry litter piggery demonstration site extend to 20 sites
- Already one pig farmer sought and received a micro loan to pay for his own dry litter piggery
- The Laura Lens Advisory Committee has remained active in its oversight of the IWRM Demonstration project and in the wider communication of IWRM messages
- The National IWRM Task Force has accepted the need for change, as illustrated by their drafting of a National Water and Sanitation Policy in 2013
- The National Policy has been complemented by a Regional Action Plan for Water and Sanitation over 2012-13.

A: Sufficient resources exist to underpin, sustain and upscale action.

- Upscaling action from the Laura Lens Demonstration site is very much dependent on future R2R / IWRM 2 funding
- The Laura Lens Advisory Committee has had limited contact with communities of outlying islands but would like to do so under R2R / IWRM 2

A: The impacts of climate change can be forecasted and taken into account in planning.

- The RMI has a National Climate Change Policy Framework (NCCPF) that sets out the Government of RMI's commitments and responsibilities to address climate change.
- The assumption that climate change is likely to affect RMI's access to reliable volumes of water is implied in the draft National Water and Sanitation Policy.

2. **Indicator Outcome:** National and Regional adoption of IWRM and WUE indicator framework based on improved data collection and indicator feedback and action for improved national and regional sustainable development using water as the entry point.

ID: There is a demand for and acceptance of national and regional ecosystem indicators and reporting.

- As noted in the Mid Term Review, the Indicator Framework of the overall Pacific IWRM project has been problematic at both the national demonstration project and national policy level. The RMI has not incorporated the Framework at the project level beyond the Project Logframe framework
- A change in the IWRM Project staffing during the course of the project meant that the new expertise made available to the project become more focussed on implementation of demonstration site activities (Component 1) and communication and engagement activities (Component 4) than on the Indicators Framework
- The need to develop and monitor indicators has been incorporated into the National Water and Sanitation Policy.

A: The benefits of a framework can be clearly articulated and understood by a range of stakeholders.

- Unable to comment beyond that the understanding of an indicators framework differs between stakeholders and that at no point did this understanding convert into a formal framework.

3. **Policy Outcome:** Institutional change and realignment to enact National IWRM plans and WUE strategies, including appropriate financing mechanisms identified and necessary political and legal commitments made to endorse IWRM policies and plans to accelerate Pacific Regional Action Plan actions.

ID: There is a national demand for and adoption of revised IWRM plans and WUE policies.

- A draft National Water and Sanitation Policy was considered by Cabinet in 2013 and requires amendment to address issues of drought and compliance

“Some government members think that the document needs more teeth!”

- The Laura Lens Advisory Committee is keen to pursue the preparation of a Laura Lens IWRM Plan in the R2R / IWRM2.

A: A clear roadmap to assist with IWRM implementation is available.

- At the national level, the draft National Water and Sanitation Policy sets the expectations for a roadmap.

A: APEX bodies are accepted as beneficial for IWRM and WUE planning and management.

- We heard that despite the reinvigoration of a National IWRM Task Force, it was perhaps less influential over Cabinet decisions on water and sanitation issues that it was over local coordination of IWRM project activities.

4. **Capacity Outcome:** Improved institutional and community capacity in IWRM at national and regional levels.

ID: There is a strong willingness of national experts and other stakeholders to participate in training and twinning activities.

- The RMI has been particularly active in regional level exchanges with respect to compost toilets and dry litter piggeries
- Capacity building activities have occurred at community, school and professional levels. Examples include community awareness activities during Earth Day and World Water Day, and the National Water Summit.
- Former national staff have attained a graduate certificate in IWRM
- The Micronesia Challenge, a commitment by the Federated States of Micronesia, the Republic of the Marshall Islands, the Republic of Palau, Guam, and the Commonwealth of the Northern Marianas Islands to preserve the natural resources that are crucial to the survival of Pacific traditions, cultures and livelihoods, provides the opportunity to share, learn and reflect on progress between the countries.

A: The benefits of training and participation are understood and considered worthwhile.

- Mentors of the IWRM team recognised the value of on-going upskilling, including furthering tertiary education.
- The Laura Lens Advisory Committee is keen to continue its role beyond the life of the IWRM, but we were not able to ascertain whether this was influenced by imminent commencement of R2R / IWRM2
- The Advisory Committee is keen to share its experience with other island communities in future.

A: Sufficient resources are available to sustain interest and participation to the point where benefits are realised.

- In the absence of budget allocations by the RMI Cabinet specifically to implement the Draft National Water and Sanitation Policy, it is difficult to see how the RMI plans to sustain activities without continued GEF and similar support.

Other issues

- The septic tank cleaning truck purchased with IWRM funds has been commandeered by another agency and Laura Lens community members are expected to pay \$500 per visit and waste removal

From this assessment of Impact Drivers and Assumptions, it appears that the most significant factor that will drive the RMI to achieve its higher level outcomes and impacts is demonstrated reductions in nutrients into the Laura Lens as is beginning to be observed. While in one sense this may demonstrate that major gains can be made in the absence of a national policy and plan, such a policy and plan could enhance the replication of activities and benefits to other islands of the RMI.

Samoa

Rehabilitation and Sustainable Management of the Apia Catchment

Project Goal

The Apia water catchment is a well managed water resource ensuring appropriate and sustainable management and continued availability of quality water to meet all reasonable health, environmental & economic development needs.

Project Purpose

Improved integrated water resources and wastewater management in the Apia catchment.
Improved environmental conditions, water quality and public health.

Project Components

1. Project Management – effective and timely delivery of IWRM project, developed capacity of PMU and CCC
2. Policy and Planning – policy, institutional and legislative/regulatory requirements in place, planning and management tools developed
3. Rehabilitations and Conservation of the Degraded Areas – conservation and rehabilitation measures/plans implemented in priority areas of the Apia catchment
4. Awareness and Capacity Building



Example Project Achievements

- The IWRM project is an integral part of the Samoa Water Sector Program and the *2012-2016 Water for Life Framework for Action* (Samoa's IWRM roadmap), facilitating the IWRM project contributions to national planning.
- Development of the Watershed Conservation Policy, protecting the top 600m of watershed, has led to the Government of Samoa's commitment to purchase and designate 485 hectares of upland watershed as a watershed conservation zone.
- Development of watershed management plans for the Vasisigano and Fuluasou watersheds of the Apia catchment.
- Developed and implemented a range of approaches to work through gender and equity issues during consultations.
- Increasing GIS mapping expertise and consequently upgrading the hydrology GIS layer of Samoa.
- Transformed a non-government mechanical engineer into a competent IWRM project manager and IWRM advisor.
- Received significant benefits from co-financing, such as reducing septic overflow and leakages from commercial businesses in Apia by piping it to the new wastewater treatment plant.

Assessment of Impact Drivers and Assumptions

1. **Practical Outcome:** Lessons learned from demonstrations of IWRM and water use efficiency approaches replicated and mainstreamed into existing cross-sectoral, local, national and regional approaches to water management.

ID: Target audiences from Community to Cabinet are reached, and their knowledge about the IWRM and WUE is reflected in their priorities, plans, resource allocation and actions.

The concept of IWRM and its practice existed before this IWRM demonstration project. The Samoa Water Sector Program and *Water for Life Framework for Action* Plan is, by another name, the existing national IWRM Plan. The Joint Water Sector Steering Committee is the APEX body for the sector. Replacing the previous *Water for Life Framework for Action*, the 2012-2016 framework has the goal of "Reliable, clean, affordable water and basic sanitation within the framework of IWRM, for all people in Samoa to sustain health improvements and alleviate poverty".

"The Government looks at the water sector as successful, rather than IWRM specifically – and that is a good thing."

- Developing watershed management plans (9 to date) involved extensive consultation with affected communities to introduce the issues, show the proposed plan and discuss the necessary bylaw, then seek agreement/approval for the bylaw.
- A stakeholder analysis and engagement and communication strategies were developed and implemented, identifying mechanisms for involvement, and communicating issues, outputs and outcomes to key stakeholders.

- The IWRM Demonstration Project Coordinating Committee came under an existing sub-sector committee that reports up to the Samoa Joint Water Sector Steering Committee through the Technical Steering Committee. Coordination and commitment to IWRM is hence strengthened at many levels of government.
- Community group participation in watershed clean-up and rehabilitation was encouraged, and is now a regular event during World Water day and Environment Week celebrations.

A: Target audiences accept the need for change and are prepared to act both individually and collectively.

- At the government level the acceptance of need to change is illustrated through the Government of Samoa's commitment to purchase and designate 485 hectares of upland watershed as a watershed conservation zone, and its consideration of a 'cloud forest' 600 metre exclusion zone to prohibit development for the purpose of watershed conservation.
- A successful partnership between the MNRE-Water Resources Division and the Samoa Water Authority in organising the 2011 World Water Day activities has led to many cooperative activities since.
- The major land owner in the watershed conservation zone (the affected party), the Catholic Church, took considerable time and effort to come to a resolution about subdividing land in the watershed.
- Seeing the benefits of protecting watershed, people are writing to MNRE asking for land to be purchased. After an assessment of the land, an appropriate plan to protect the watershed is made, this may include purchase but also land swap, fencing, replanting or removing stock.

A: Sufficient resources exist to underpin, sustain and upscale action.

- A budget line is in place for national IWRM.
- The Government of Samoa has made a commitment to purchase upland watershed as a watershed conservation zone to enact the Watershed Conservation Policy.
- The success and status of the demonstration project has attracted significant co-financing that underpins (eg, through water resource data collection) and sustains (eg, through wastewater connections) action.
- Some of the results of the demonstration project, when they reached higher-level government approval became landmark accomplishments that resulted in directives for upscaling. One example of this is the national Water Conservation Policy that aims to protect the upland of the entire country, and which will transition to the new GEF R2R programme.

A: The impacts of climate change can be forecasted and taken into account in planning.

- Environmental sustainability and disaster risk reduction are among the priorities of the Strategy for the Development of Samoa 2008-2012, which identifies climate change adaptation as a cross-cutting issue. Climate change adaptation is reflected as a priority

in many high-level plans and strategies. The Water for Life sector plan integrates climate change adaptation measures in all phases of the programme cycle

2. **Indicator Outcome:** National and Regional adoption of IWRM and WUE indicator framework based on improved data collection and indicator feedback and action for improved national and regional sustainable development using water as the entry point.

ID: There is a demand for and acceptance of national and regional ecosystem indicators and reporting.

- Quarterly stakeholder meetings provide the main avenue to engage in demonstration-level planning, monitoring and evaluation activities.
- Indicators are a component of the National Water Sector Program and Water for Life Framework for Action.

A: The benefits of a framework can be clearly articulated and understood by a range of stakeholders.

- Unable to comment

3. **Policy Outcome:** Institutional change and realignment to enact National IWRM plans and WUE strategies, including appropriate financing mechanisms identified and necessary political and legal commitments made to endorse IWRM policies and plans to accelerate Pacific Regional Action Plan actions.

ID: There is a national demand for and adoption of revised IWRM plans and WUE policies.

- The IWRM project is an integral part of the Samoa Water Sector Program and the *2012-2016 Water for Life Framework for Action* (Samoa's IWRM roadmap), facilitating the IWRM project contributions to national planning.

A: A clear roadmap to assist with IWRM implementation is available.

- Samoa's *2012-2016 Water for Life Framework for Action* is the IWRM roadmap.

A: APEX bodies are accepted as beneficial for IWRM and WUE planning and management.

- The Joint Water Sector Steering Committee is the APEX body for the sector, and the Samoa Water Sector Program (the existing national IWRM Plan) comes under its mandate.

4. **Capacity Outcome:** Improved institutional and community capacity in IWRM at national and regional levels.

ID: There is a strong willingness of national experts and other stakeholders to participate in training and twinning activities.

- The twinning activity with the Cook Islands provided many lessons, for example the use of signs to discourage cleaning of cars in rivers.

- National staff have attained a post-graduate certificate in IWRM.

A: The benefits of training and participation are understood and considered worthwhile.

- Participating in the IWRM post-graduate course gave the demonstration project manager the confidence to plan and deliver, the 'science of water' and 'project management' papers in particular. Having a senior manager also understand IWRM assisted with understanding and appreciation of the project logframe direction and activities.
- A lesson learned is to build training (capacity building) into planning from the start. Confidence to act is built up through training.

A: Sufficient resources are available to sustain interest and participation to the point where benefits are realised.

- A significant driver of interest and participation is the nation's will to fulfill the expectations of its National Water Sector Program and 2012-2016 Water for Life Framework for Action.
- The National Water Sector Program has a significant budget for capacity building.
- Up-scaling of some aspects of the IWRM project is proposed in the R2R project, for example watershed management plans.

From this assessment of Impact Drivers and Assumptions, it appears that the most significant factor that will drive Samoa to achieve its higher level outcomes and impacts is its commitment to fulfil the expectations of its National Water Sector Program and *2012-2016 Water for Life Framework for Action*. The drive for IWRM is coming from a national sector push (not specifically IWRM) that preceded the IWRM demonstration project, and watershed-level commitment to local action for local benefit and public good.

Solomon Islands

Managing Honiara city water supply and reducing pollution via IWRM approaches

Project Goal

To promote best water management strategies and protection measures for Honiara city water resources to ensure there is sustainable reliable water supply and wastewater services in the Honiara city through the following mechanisms: IWRM management strategies; policy and legislative review and formulation; a Water safety Plan; water use efficiency (WUE) and demand management; and water catchment management.

Project Purpose

Hot Spot Analyses undertaken in 2007 highlighted the priority issue of pollution due to the disposal of raw sewerage through septic systems and outfalls at the coastal areas within Honiara city. As a consequence, this project aims to achieve best practice in water resources and supply management using the “ridge to reef” concept while at the same time tackling water issues using the bottom up approach using the “community to cabinet” concept.

Project Components

The following components were identified in the logframe and work-plan which encompasses the scope of the demonstration project:

1. Development of a Catchment Management Plan
 - a. at a selected water catchment through enactment of IWRM policy and new Water Resources Legislation
2. Catchment Survey
 - a. assessments of catchment resources including mapping of vegetation, cultural sites, forestry and biodiversity and hydrological (data) acquisition
3. Awareness to promote and increase capacity of communities and government institutions
 - a. in order to integrate development activities, social equity and environment protection using integrated water resources management approach
4. Water Safety Planning
 - a. promoting the Solomon Islands Water Authority (SIWA) to have in place a coordinated and documented method of risks assessment, identifying areas within water supply distribution that needs attention
 - b. preparing a risk reduction or emergency plan to be implemented to ensure that both moral and practical aspects of meeting the water safety standards increases public confidence in the water provider
5. Water Use Efficiency (WUE) and Water Demand Management (WDM)
 - a. promoting wise use of water through improved infrastructure, attitude change and retrofitting at supply and demand sides
 - b. detecting and abating leaks at selected areas
 - c. improved planning for developing new water sources taking into consideration the costs of water losses through leaks and vandalisms in current distribution systems



(Mataniko Groundwater Monitoring borehole)

Example Project Achievements

- Establishment of the Kovi/Kongulai Community Catchment Committee
- Establishment of the National Inter-sectoral Water Coordinating Committee as the national APEX body
- Preparation of a draft National IWRM Policy and Implementation Plan, submitted for Ministerial approval (but still awaiting Cabinet approval)
- Establishment of a Leakage Detection Team, and identification and assessment of major leaks across Honiara – priority areas are defined as Demand Management Areas (DMAs). JICA is building upon and extending this work
- Preparation of a Water Safety Plan and completion of Plan assessment training
- Input into a National Ecotourism Plan (an IUCN initiative) aimed at helping conserve critical Kovi/Kongulai catchment areas
- Establishment of an ongoing water monitoring program testing for both chemical/nutrients and pathogens.

Assessment of Impact Drivers and Assumptions

1. **Practical Outcome:** Lessons learned from demonstrations of IWRM and water use efficiency approaches replicated and mainstreamed into existing cross-sectoral, local, national and regional approaches to water management.

ID: Target audiences from Community to Cabinet are reached, and their knowledge about the IWRM and WUE is reflected in their priorities, plans, resource allocation and actions.

- An engagement strategy was developed and implemented, identifying mechanisms for communicating issues, outputs and outcomes to key stakeholders
- The demonstration project involved a good level of community engagement throughout the project,

- A National Water Resources and Sanitation Policy has been drafted and presented to the Minister, and will be forwarded for Cabinet decision in the first half of 2014
- A National Inter-sectorial Water Coordinating Committee (NIWCC) was established to coordinate IWRM activities, including policy coordination across government agencies.

A: Target audiences accept the need for change and are prepared to act both individually and collectively.

- Local community members have been actively engaged in the water monitoring activities
- The Kovi/Kongulai Community Catchment Committee has remained active in its oversight of the IWRM Demonstration project and in the wider communication of IWRM messages
- The NIWCC has accepted the need for change, as illustrated by the drafting of a National Water and Sanitation Policy in 2013
- The National Policy has been complemented by a Water Safety Plan, with some strategies being implemented ahead of Cabinet approval of the National Water and Sanitation Policy.

A: Sufficient resources exist to underpin, sustain and upscale action.

- Upscaling action may be limited by a lack of capacity within some agencies (i.e. water quality analysis expertise) without further R2R / IWRM 2 funding
- Funds have been secured from JICA to extend the Leakage Detection Team.

A: The impacts of climate change can be forecasted and taken into account in planning.

- Climate related forecasts were undertaken in 2011 as part of the input into the preparation of the National Water and Sanitation Policy
- Climate change adaptation funding is almost exclusively donor dependent.

2. **Indicator Outcome:** National and Regional adoption of IWRM and WUE indicator framework based on improved data collection and indicator feedback and action for improved national and regional sustainable development using water as the entry point.

ID: There is a demand for and acceptance of national and regional ecosystem indicators and reporting.

- As noted in the Mid Term Review, the Indicator Framework of the overall Pacific IWRM project has been problematic at both the national demonstration project and national policy level. The Solomon Islands has not incorporated the Framework at the project, although some good water quality monitoring and analysis work is being undertaken with IWRM support.
- Indicators will be developed following Cabinet approval of the national policy.

A: The benefits of a framework can be clearly articulated and understood by a range of stakeholders.

- Unable to comment beyond that the understanding of an indicators framework differs between stakeholders and that at no point did this understanding convert into a formal framework.

3. **Policy Outcome:** Institutional change and realignment to enact National IWRM plans and WUE strategies, including appropriate financing mechanisms identified and necessary political and legal commitments made to endorse IWRM policies and plans to accelerate Pacific Regional Action Plan actions.

ID: There is a national demand for and adoption of revised IWRM plans and WUE policies.

- A draft National Water and Sanitation Policy was prepared in 2013 and will be considered for endorsement by Cabinet in the first half of 2014
- The Policy is complemented by a Water Safety Plan.

A: A clear roadmap to assist with IWRM implementation is available.

- At the national level, the draft National Water and Sanitation Policy sets the expectations for a roadmap.

A: APEX bodies are accepted as beneficial for IWRM and WUE planning and management.

- The NIWCC involves most of the important government agencies in respect to water and related policy and is considered an important national coordinating body.
- We did hear at interview that some aspects of policy such as land use zoning and development approval has been problematic and is not helped by the Department of Lands and Honiara City Council lack of attendance at NIWCC meetings.

4. **Capacity Outcome:** Improved institutional and community capacity in IWRM at national and regional levels.

ID: There is a strong willingness of national experts and other stakeholders to participate in training and twinning activities.

- Capacity building activities have occurred at community and government level, with the community having some training in monitoring methods and the theory of IWRM, while government officers have received training also in leakage detection methods
- Former national staff have attained a graduate certificate in IWRM
- In its Mid-term and draft terminal reports the Solomon Islands has not described its participation in regional level activities beyond participation in IWRM Regional Steering Committee meetings.

A: The benefits of training and participation are understood and considered worthwhile.

- Participants in the project steering committee highlighted that participation in the IWRM project has significantly enhanced their understanding of the need for and methods to implement integrated water resource management.

“When we started, IWRM was a new concept. Not many of us were well versed in it. But since participating in IWRM I, and other members of the committee, have really started to grasp the concept. Understanding the need for a whole of government approach has been valuable. And involving the community and NGOPs has been really important.”

A: Sufficient resources are available to sustain interest and participation to the point where benefits are realised.

- In the absence of budget allocations by Cabinet specifically to implement the Draft National Water and Sanitation Policy, it is difficult to see how the Solomon Islands plans to sustain activities without continued GEF and similar support.

From this assessment of Impact Drivers and Assumptions, it appears that the most significant factor that will drive the Solomon Islands to achieve its higher level outcomes and impacts is demonstrated reductions in significant levels of leakages, accompanied by reductions in nutrient and pathogen levels, resulting in an overall increase in the availability of safe drinking water.

Kingdom of Tonga

Improvement and Sustainable Management of Neiafu's Groundwater Resources

Project Goal

Sustainable water resource assessment and protection of the fragile Neiafu groundwater resources.

Project Purpose

Improved understanding of the quality and quantity of surface water, groundwater, rainwater, coastal receiving waters, and their vulnerabilities to land based pollution.

Project Components

1. Mitigate threats from contaminants
2. Assess water resources and water use efficiency
3. Governance and project management
4. Develop water resource management plan for Neiafu, including incentives
5. Develop and implement national water resources management policy incorporating WUE



Example Project Achievements

- Managing impacts to the environment by rehabilitating failing septic tanks, installation of demonstration composting toilets and use of septic tank pump-out truck and disposal facility
- Developed community best household water management practice manual and provided training
- Strong connection with the Neiafu IWCM project

- Assessments of aquifer water quality and sustainable yield, and septic tank and water wastage and leaks, and established a water quality testing facility
- High levels of community engagement in project and awareness of water and sanitation challenges
- Established the Neiafu Aquifer Management Committee, including participatory planning, monitoring and evaluation
- Drafted Water Resource Management Plan for Neiafu (the draft IWRM Plan)
- Re-invigorated the National Water Resources Management Committee, which is progressing the National Water Bill and Water Resource Management Policy
- Progressing an increase in national budget for IWRM activities
- Established a National participatory M&E Framework to support IWRM implementation, and trained staff in participatory M&E methods

Assessment of Impact Drivers and Assumptions

1. **Practical Outcome:** Lessons learned from demonstrations of IWRM and water use efficiency approaches replicated and mainstreamed into existing cross-sectoral, local, national and regional approaches to water management.

ID: Target audiences from Community to Cabinet are reached, and their knowledge about the IWRM and WUE is reflected in their priorities, plans, resource allocation and actions.

- At the demonstration project location (Neiafu) there was a high level of community engagement throughout the project, championed by the community leadership and engagement of members of the Neiafu Aquifer Management Committee.
- The demonstration project studies and achievements have informed discussions and public consultations of the National Water Bill. The Bill incorporates the principles of IWRM and WUE. The demonstration project community's awareness and knowledge of IWRM and WUE was reflected in their understanding of the Bill and engagement in public consultations.
- Efforts have commenced to raise awareness of communities nationally, using among other means television, radio talkback and World Water Day activities.

A: Target audiences accept the need for change and are prepared to act both individually and collectively.

- We heard that the demonstration project community, when provided with scientific evidence and explanations, were generally accepting of the need for change.
- The National Water Resources Management Committee accepted the need for change, as illustrated by their progressing the National Water Bill and Water Resources Management Policy.

A: Sufficient resources exist to underpin, sustain and upscale action.

- We heard of the importance of an active agency lead, a dedicated and trained implementation team, and an active local community committee to sustain local activity. Up scaling will therefore likely require more implementation teams and the formation and support of local community committees. We did not hear about an on-going budget

to support this, although the project final report indicates progress has been made against the indicator of national budget increase for IWRM activities.

A: The impacts of climate change can be forecasted and taken into account in planning.

- The draft National Integrated Water Resource Management Plan, Kingdom of Tonga document has a number of goals related to climate change impacts, for example “To clearly delineate Tonga’s fresh groundwater resources and set an initial sustainable rate of extraction for each water source taking into account climate change predictions and other disaster related risks to resource quantity” and “To understanding current and future water use and demands within the context of climate change predictions”.
- Water resources planning for climate change is integral to the sister IWCM project in Neiafu, for example the activities “Integrate climate change considerations into regional plans for integrated water/coastal management proposed for Vava’u (following IWRM guidelines designed in Neiafu)” and “Reduce wastewater discharge into coastal waters through improving foreshore housing wastewater management”.

2. **Indicator Outcome:** National and Regional adoption of IWRM and WUE indicator framework based on improved data collection and indicator feedback and action for improved national and regional sustainable development using water as the entry point.

ID: There is a demand for and acceptance of national and regional ecosystem indicators and reporting.

- Extrapolating what we heard about the value of environmental data collection and reporting in stimulating Neiafu community action and in supporting discussions and public consultations of the National Water Bill, we infer there is a demand for national indicators and reporting.
- The National Water Bill includes water resource monitoring, assessment and reporting objectives. Once enacted, a fair assumption would be setting indicators against which the assessments would be made.
- The demonstration project final report indicates a national participatory M&E framework to support IWRM implementation has been established.

A: The benefits of a framework can be clearly articulated and understood by a range of stakeholders.

- Unable to comment.

3. **Policy Outcome:** Institutional change and realignment to enact National IWRM plans and WUE strategies, including appropriate financing mechanisms identified and necessary political and legal commitments made to endorse IWRM policies and plans to accelerate Pacific Regional Action Plan actions.

ID: There is a national demand for and adoption of revised IWRM plans and WUE policies.

A: A clear roadmap to assist with IWRM implementation is available.

- There is a draft National Integrated Water Resource Management Plan, Kingdom of Tonga document, and the National Water Bill and draft Water Resources Management Policy incorporate the principles of IWRM and WUE.

A: APEX bodies are accepted as beneficial for IWRM and WUE planning and management.

- Through the demonstration project, the National Water Resources Management Committee was re-invigorating, and has been able to progress the National Water Bill and Water Resource Management Policy, which incorporate the principles of IWRM and WUE.

4. **Capacity Outcome:** Improved institutional and community capacity in IWRM at national and regional levels.

ID: There is a strong willingness of national experts and other stakeholders to participate in training and twinning activities.

- Training of community water champions in household level drinking-water safety planning occurred in 2012.
- The Project Management Unit team recognised the gaps in their knowledge, particularly at the beginning of the project, and demonstrated a willingness to learn. The team has participated in several training programmes related to IWRM, including a JICA Water Resources Conservation Management workshop, food and water safety training, and IWRM post-graduate training.
- Advice was sought from Tuvalu on their experience with design and construction of composting toilets.

A: The benefits of training and participation are understood and considered worthwhile.

- Of particular note by the team was the value of the IWRM post-graduate training. The Project Manager has commenced a Masters study in Water Resource Management.
- The community water champions are expected to run on-going training within their communities. The champions contributed to the Best Household Water Management Practices manual, which covers safe drinking-water sanitation practices.

A: Sufficient resources are available to sustain interest and participation to the point where benefits are realised.

- Unable to comment.

From this assessment of Impact Drivers and Assumptions, it appears that the most significant factor that will drive Tonga to achieve its higher level outcomes and impacts is an array of locally-beneficial practical projects each led by an informed, committed and adequately supported (technically and financially) local committee.

Tuvalu

Integrated sustainable wastewater management (Ecosan) for Tuvalu

Project Goal

To Reduce Tuvalu's vulnerability to drought and improve human health and the environment through improving wastewater management in an IWRM framework.

Project Purpose

To save water and protect human health and the environment through improvements to sanitation systems.

Project Components

The following components were identified in the logframe and work-plan which encompasses the scope of the demonstration project:

1. Develop/revise national policy and legislation to enable better wastewater and water management
 - a. identifying priority gaps, necessary amendments to the draft Water Act and Water Policy
2. Provide sound governance to provide confidence, transparency, accountability and credibility
 - a. reconvening the Sanitation Steering Committee as an APEX body
 - b. defining roles and responsibilities for water and wastewater management, and engaging government more broadly
3. Develop and implement a National Water and Sanitation Plan
 - a. reflecting community/stakeholder values and priorities through participation
 - b. developing local capacity to implement the Plan
4. Develop and maintain a sound information and knowledge base
 - a. allowing for the basis of ongoing monitoring, assessment and continuous improvement
 - b. supporting community trialing of compost toilets and improved septic systems
5. Develop tools to aid the management of water and wastewater
 - a. Incorporating regulations, guidelines and design of roof catchments, rain storages and sanitation systems into building codes
6. Support on ground works to improve water and wastewater management
 - a. Supporting improvements to household rainwater collection and storage systems

Example Project Achievements

- 40 compost toilets have been installed, reducing water consumption in the households by over 30 per cent (covering around 280 people, or ~5 per cent of Funafuti's population). A further 45 compost toilets are to be installed in Funafuti and 90 on outer islands over the coming months. Compost toilet uptake has reached the point where it is seen as the preferred sanitation option (see NWP below)

- Reduction in nitrogen leaching due to the introduction of the compost toilets is estimated at ~6 per cent
- Establishment of a National Water Policy (NWP) endorsed by Cabinet in 2013. The policy includes best management approaches to IWRM and WUE
- Establishment of a National Water and Sanitation Steering Committee (APEX body) for IWRM policy development and implementation
- National IWRM indicators developed and used as a means of monitoring project progress by the Steering Committee
- IWRM has supported the government of Tuvalu and the National Disaster Committee through periods of drought and National State of Emergency, assisting in emergency planning and logistical distribution of water
- Over 25 per cent of all people in Funafuti have been engaged in IWRM activities.



(Pisi Seleganiu inspecting one of about 50 compost toilets developed and installed in Tuvalu under the IWRM Project)

Assessment of Impact Drivers and Assumptions

1. **Practical Outcome:** Lessons learned from demonstrations of IWRM and water use efficiency approaches replicated and mainstreamed into existing cross-sectoral, local, national and regional approaches to water management.

ID: Target audiences from Community to Cabinet are reached, and their knowledge about the IWRM and WUE is reflected in their priorities, plans, resource allocation and actions.

- An engagement strategy was developed and implemented, identifying mechanisms for communicating issues, outputs and outcomes to key stakeholders
- The demonstration project involved a good level of community engagement throughout the project, reaching over 25 per cent of the population
- A National Water Policy based on IWRM principles has been endorsed by Cabinet

- A National Water and Sanitation Steering Committee (NWSSC) was established to coordinate IWRM activities.

A: Target audiences accept the need for change and are prepared to act both individually and collectively.

- Local community members have been actively engaged in water management awareness activities
- The demand for the compost toilets has exceeded the initial target envisaged, with some community members paying the full price of having one installed
- The Tuvalu government has accepted the need for change, as illustrated by the drafting of a National Water and Sanitation Policy in 2013
- A significant drought experience in 2011 has been a major driver for collective action in increasing WUE and rainwater harvesting.

A: Sufficient resources exist to underpin, sustain and upscale action.

- Upscaling action is already taking place, with funds sought for the installation of 90 compost toilets on outer islands
- The GDP of Tuvalu is insufficient to undertake all necessary actions to fully implement the NWP without donor assistance.

A: The impacts of climate change can be forecasted and taken into account in planning.

- The Tuvalu Meteorology Bureau has some capacity to forecast climate change but is reliant on international models and collaboration. The NWP is based on scenarios of rising seawater levels, more frequent king tides and overall increase in climate variability, including droughts
- Climate change adaptation funding is almost exclusively donor dependent.

2. **Indicator Outcome:** National and Regional adoption of IWRM and WUE indicator framework based on improved data collection and indicator feedback and action for improved national and regional sustainable development using water as the entry point.

ID: There is a demand for and acceptance of national and regional ecosystem indicators and reporting.

- As noted in the Mid Term Review, the Indicator Framework of the overall Pacific IWRM project has been problematic at both the national demonstration project and national policy level. Tuvalu has adopted a scaled-down framework to monitor critical nutrient levels.

A: The benefits of a framework can be clearly articulated and understood by a range of stakeholders.

- Many of the interviewees understood the need for simple indicators that could be readily monitored at low cost.

3. **Policy Outcome:** Institutional change and realignment to enact National IWRM plans and WUE strategies, including appropriate financing mechanisms identified and necessary political

and legal commitments made to endorse IWRM policies and plans to accelerate Pacific Regional Action Plan actions.

ID: There is a national demand for and adoption of revised IWRM plans and WUE policies.

- A National Water Policy was endorsed by Cabinet in 2013
- Tuvalu supported the development of a draft National Master Plan for public debate comprising 1) the introduction of a sewerage system across Funafuti, 2) building seawalls to protect the coastal environment and infrastructure, 3) waste management systems based on zero net waste, and 4) better planning and logistics. The cost of most actions is far beyond the capacity of Tuvalu to meet, and the sewerage concept is reliant on open sea (as opposed to lagoon) disposal and is counter to the aims of the compost toilet concept that can also provide compost for agricultural and related purposes.

A: A clear roadmap to assist with IWRM implementation is available.

- At the national level, the draft National Water Policy sets the expectations for a roadmap.

A: APEX bodies are accepted as beneficial for IWRM and WUE planning and management.

- The NWSSC involves most of the important government agencies in respect to water and related policy and is considered an important national coordinating body.

4. **Capacity Outcome:** Improved institutional and community capacity in IWRM at national and regional levels.

ID: There is a strong willingness of national experts and other stakeholders to participate in training and twinning activities.

- Staff of several agencies have participated in training sessions provided by IWRM coordinators
- National staff have attained a graduate certificate in IWRM
- The Tuvalu demonstration project is an excellent example of south-south twinning, with its ground-breaking work on compost toilets being actively shared with Tonga, Nauru, Marshall Island and others.

A: The benefits of training and participation are understood and considered worthwhile.

- IWRM participants highlighted during interviews that Tuvalu agencies are dependent upon strong collaboration and participation as a means of creating the critical mass needed to achieve positive results.

A: Sufficient resources are available to sustain interest and participation to the point where benefits are realised.

- In the absence of budget allocations by Cabinet specifically to implement the National Water Policy, it is difficult to see how Tuvalu plans to sustain activities without continued donor support.

From this assessment of Impact Drivers and Assumptions, it appears that the most significant factor that will drive Tuvalu to achieve its higher level outcomes and impacts is demonstrated benefits from compost toilets and other WUE strategies. Most of these benefits may not be fully understood until the next drought comes along; however, the impact of the 2011 drought was so severe it will continue to influence water management decisions for a while yet, particularly as many of the important IWRM strategies have been incorporated into national policy.

Vanuatu

Sustainable Management of the Sarakata Watershed

Project Goal

Ensure the Sarakata basin is managed sustainability from “Ridge to Reef” to meet the needs of the rural and urban populations it serves and providing an exemplary model nationally and regionally.

Project Purpose

To provide an operational network and mechanism to plan for and monitor all development in the watershed that may affect the ecology, availability and quality of water and other natural resources in the Sarakata watershed.

Project Components

7. Strengthened coordination for IWRM in the Sarakata Watershed
8. Development of Sarakata Watershed IWRM Management Plan
9. Delivery of safe and secure water to consumers
10. Mitigate flooding and establishing flood monitoring systems

Example Project Achievements

- Establishment of two Community Conservation Areas within the Sarakata Watershed with their Catchment Management Plans and endorsed by the IWRM Steering Committee.
- Government compensation for a significant area of conservation protection land for the Luganville water supply source.
- Established water protection zones (Zone I, II, & III) with fencing of Zone I and accompanying restrictions to ensure that the water supply source is safe.
- Established rainwater harvesting catchments for a community with contaminated water, and a small scale formal system for Pump Area, one of the worst affected areas in Luganville.
- Government and community working together to achieve a common goal on water issues.
- Established six monitoring sites at the reef to gather baseline information on land-use sedimentation.
- Established surface water quality monitoring sites along the Sarakata River & Coastal water quality around the Canal area to gather baseline information on land use impact on water quality.
- IWRM project helped to progress water demand management and drinking-water safety planning programmes.
- Implement WASH programme such as Composting Toilets as an alternative to improved sanitation in areas with high water tables especially in the Pepsi & Solway Areas.
- Establishment of a Semi-aerobic solid waste management low cost system
- Replanting of exposed riparian areas and reforestation on some areas inland.
- Establishment of Tilapia Farm Demonstration Ponds in two communities that rely heavily on the Sarakata River for fish.

- Increased Knowledge on watershed & environmental management & conservation to rural communities within the watershed
- In the process of drafting a National IWRM Plan, which draws on the 2008-2018 National Water Strategy, the 2010 National Integrated Coastal Management Framework, and lessons from the IWRM demonstration project.

Assessment of Impact Drivers and Assumptions

1. **Practical Outcome:** Lessons learned from demonstrations of IWRM and water use efficiency approaches replicated and mainstreamed into existing cross-sectoral, local, national and regional approaches to water management.

ID: Target audiences from Community to Cabinet are reached, and their knowledge about the IWRM and WUE is reflected in their priorities, plans, resource allocation and actions.

- The project steering committee was established from the existing Sanma Water Advisory Committee, and expanded to now include Vanuatu Government departments, Sanma Provincial Government, Luganville Municipality, and women's representative and customary/traditional land owners.
- Engagement and communications strategies were developed and implemented.
- Stakeholders that did not participate in the inception meetings, such as women and chiefs, were brought in on specific community activities, and became village representatives in consultation meetings.

A: Target audiences accept the need for change and are prepared to act both individually and collectively.

- The expanded steering committee has been effective in opening up communication between provincial and national government, influencing provincial and national-level decision making, and fostering a coordinated approach to managing the Sarakata Basin water resource.
- A collaboration MoU was signed by all Directors of the relevant government agencies and stakeholders, outlining the responsibilities of each partner.
- The national APEX body, the National Water Resources Advisory Committee, assisted the project to gain support from other departments that are not members of the project steering committee.
- The conservation of reserve areas was agreed by traditional land owners.
- During the course of the project, community engagement progressed from passive to active through activities such as clean-up campaigns, constructing of composting toilets, reforestation, and agriculture demonstration plots.
- Women are the most targeted group in the sanitation part of the project. They are the managers of the house and can influence the minds and actions of the children

A: Sufficient resources exist to underpin, sustain and upscale action.

- We heard that with the next R2R project moving location to Port Vila, the project steering committee has been discussing options for sustaining activity in the Sarakata

Basin. The energy is there and opportunities have been opened up by the demonstration project.

- Access to funding is a limited factor. But ideas were mentioned, such as ecotourism to generate income for the communities.

A: The impacts of climate change can be forecasted and taken into account in planning.

- One example of APEX body support was in organising a workshop to mainstream climate change into the IWRM planning process.

2. **Indicator Outcome:** National and Regional adoption of IWRM and WUE indicator framework based on improved data collection and indicator feedback and action for improved national and regional sustainable development using water as the entry point.

ID: There is a demand for and acceptance of national and regional ecosystem indicators and reporting.

- Inclusion of targets for area of land to be conservation protected land, priorities for reforestation, and percent population target for access to safe drinking water illustrates demand for, and acceptance of indicators by the steering committee, which is representative of the key stakeholders.

A: The benefits of a framework can be clearly articulated and understood by a range of stakeholders.

- Unable to comment beyond having a sense that the demonstration project Performance Indicator Report was front-of-mind for the interviewees when asked about regional indicators.

3. **Policy Outcome:** Institutional change and realignment to enact National IWRM plans and WUE strategies, including appropriate financing mechanisms identified and necessary political and legal commitments made to endorse IWRM policies and plans to accelerate Pacific Regional Action Plan actions.

ID: There is a national demand for and adoption of revised IWRM plans and WUE policies.

- The guiding document for water management in Vanuatu is the National Water Strategy 2008-2018. The strategy calls for an IWRM approach to meet its objectives. The strategy calls for the Provinces to develop IWRM Master Plans appropriate for their local context.
- A view was expressed during the interview that the EU-funded policy component came too early in the overall project. It should have come toward the end when policy development could benefit from lessons learned during the demonstration project.
- We heard that support from SPC-SOPAC will be provided soon to complete drafting the National IWRM Plan.

A: A clear roadmap to assist with IWRM implementation is available.

- The IWRM demonstration project provided the first opportunity to put the National Water Strategy into practice at a local level. Through the lessons learned, the National

APEX body will learn effective ways to integrate IWRM principles at the national, provincial and community levels.

A: APEX bodies are accepted as beneficial for IWRM and WUE planning and management.

- As articulated in the National Water Strategy, the APEX body will oversee the development of IWRM Master Plans.

4. **Capacity Outcome:** Improved institutional and community capacity in IWRM at national and regional levels.

ID: There is a strong willingness of national experts and other stakeholders to participate in training and twinning activities.

- Professional training occurred in water quality and quantity monitoring.
- Consultants from FSM assisted the Public Water Works team with water demand management training, theory and practical, installing and reading flow meters and installing pressure reducing valves.
- Awareness and understanding was achieved with active training in waste management, environment protection, composting toilets, forestry, and fisheries reef check monitoring. Targeted training was held with women's groups, chiefs and elders, and youth.

A: The benefits of training and participation are understood and considered worthwhile.

- As a result of the FSM support and community training, better planning and delivery of the Luganville water supply, and responsible water use has been possible.
- Significant value was gained from interacting with the Tuvalu experience of introducing composting toilets to communities. Vanuatu were heading down the path of making an enterprise of composting toilets (ie, a way to make money), but learned from Tuvalu that greater engagement and acceptance can be gained by focusing on the aesthetics of the facility (ie, a desirable place to visit).

A: Sufficient resources are available to sustain interest and participation to the point where benefits are realised.

- Unable to comment.

From this assessment of Impact Drivers and Assumptions, it appears that the most significant factor that will drive Vanuatu to achieve its higher level outcomes and impacts is to drive change at the local watershed level where the communities will contribute because they can see the benefit to them, but ensure key government agencies are involved in the planning stages so their support and contribution can be incorporated into the watershed work plan. A valuable lesson learned from this demonstration project was the value of having a Director-level MoU agreeing on project aims and partner responsibilities.

Table 17: Outputs, targets and evaluators' assessment summary (Component 1)

Project Strategy	Objectively verifiable indicators					Terminal Evaluation Assessment Summary
Component 1 Objective:	Practical demonstrations of IWRM and WUE focused on removing barriers to implementation at the community / local level and targeted towards national and regional level learning and application					
Outputs	Indicator	Baseline	Target	Source of Verification	Risks and assumptions	
Component 1 Outputs:	1.1 Capture of Lessons from Demo Projects & other Water Initiatives (CTI/PACC/PAS) shared regionally & with global SIDS (P)	1.1 Limited water resources susceptible to over-exploitation and pollution	<u>i) Watershed Management</u> (i) 40% increase in population with access to safe drinking water at 1 demo site (SR) (ii) 30% reduction in animal manure and sewage entering marine waters at 1 demo site (SR) (iii) 30% increase in forest area at 2 demo sites (SR) (iv) Water Safety Plans in place and enacted in 3 peri-urban areas (SR) (v) Legislation in place to protect surface water quality in 4 SIDS (P) (vi) 1 basin flood risk management plan in place (P) (vii) Sustainable forest & land management practices established and trialled with landowners in 2 demo sites (SR)	Quarterly, bi-annual and annual National Demonstration Progress Reporting Project Coordination Unit (PCU) Annual Monitoring Reports and missions	Strong and high-level government commitment is not sustained Vulnerability to changing environmental conditions Inclusive stakeholder involvement in the IWRM consultation process	Without regionally compiled results against the regional indicators available, it is not possible for the evaluators to say how the project as a whole tracked against its regional-level targets. Indeed, at the country level it is still too early to quantify direct local health and environmental results and benefits from on-the-ground changes in practice. Nonetheless, the narrative provides a cross-section of country/community-level achievements against the country-level indicators.
1.1 Improved access to safe drinking water supplied	1.2 Replication of Demo Projects within & between PICS (where support and finances available) (SR)	1.2 Vulnerability to climate variability	(viii) Water Safety Plans in place and enacted in 3 peri-urban areas (SR) (ix) Legislation in place to protect surface water quality in 4 SIDS (P) (x) 1 basin flood risk management plan in place (P) (xi) Sustainable forest & land management practices established and trialled with landowners in 2 demo sites (SR)	National and regional statistical reports (SPC MDG) and census reporting)	Limited influence of national and catchment stakeholder to promote and sustain IWRM	
1.2 Reduction in sewage release into coastal receiving waters	1.3 Successful demos of IWRM approaches mainstreamed into existing local, national & regional approaches (SR)	1.3 Insufficient political and public awareness of the role water plays in economic development, public health and environmental protection	<u>(ii) Wastewater & Sanitation Management</u> (i) 40% reduction in FW and marine pollution discharge at 2 demo sites from sewage and manure (SR) (ii) 30% reduction in drinking water resources pollution discharge for 1 SIDS (SR) (iii) 30% reduction in use of freshwater for sanitation purposes due to eco-sanitation expansion in 1 demo site (SR) (iv) 50% increase in community engagement with National Government in 3 SIDS (P)	Mid-Term Review Reporting and mission PCU general reporting to Project Steering Committee and UNDEP UNEP	Restricted capacity of stakeholder to implement IWRM best practice in countries	We note that, apart from possibly being too early to report quantified results, many countries seemed not to be collecting the necessary data to report such results, or if collecting them had not analysed the dataset.
1.3 Reduction in catchment deforestation and sustainable forest and land management practices established	1.4 PIC understanding & adoption of technical, allocative and equitable water use efficiency measures (P)	1.4 High urban water losses, poor water conservation & inadequate drinking water treatment	<u>(iii) Water Resources Assessment & Protection</u> (i) National effluent standards reached for wastewater treatment at 3 sites (P) (ii) 20% increase in water storage	IWRM Planning and WUE Strategies (available online and via PCU)		We strongly recommend that PCU complete the activity of compiling the regional project indicator results for Component 1. Furthermore, we would encourage assistance be given to countries to write up some aspects of their work for other audiences, as appropriate in science and development sector publications. The development sector is in desperate need evidenced-based practice, which the Pacific IWRM project provides. The development sector often needs to seek support from the science sector to confirm status and progress, but the science sector lacks grounded information on the current situation. UNESCO comes to mind as a possible publisher and funder of a specific edition of the Pacific IWRM story – engagement, environmental and health science, practice and policy.
1.4 Water Safety Plans developed and adopted	1.5 Support for social and economic welfare of island communities	1.5 Poor wastewater management resulting in increased land based source pollution into the watershed and coastal environment		National IWRM APEX body meeting minutes		
1.5 Integrated flood Risk Management approaches designed and developed		1.6 Fragmented				
1.6 Expansion in eco-sanitation use and reduction in freshwater use for sanitation						

Project Strategy	Objectively verifiable indicators					Terminal Evaluation Assessment Summary
Component 1 Objective:	Practical demonstrations of IWRM and WUE focused on removing barriers to implementation at the community / local level and targeted towards national and regional level learning and application					
Outputs	Indicator	Baseline	Target	Source of Verification	Risks and assumptions	
purposes	through improved water management (P)	institutional responsibilities, weak policies, communication & coordination	facilities at 1 demo site (SR)			
1.7 Improved community level engagement with national institutions responsible for water management	1.6 Environ-mental quality and productivity sustained (SR)	1.7 Conflicts between national v traditional rights	(iii) Water leakage reduced by 40% from existing baseline levels in 1 water supply system (SR)			
1.8 Increase in water storage facilities	1.7 Improved public health across SIDS with improved monitoring (SR)	1.8 Inadequate financing due to poor cost-recovery and limited	(iv) 10% reduction in damage to infrastructure due to flooding in 1 significant catchment (SR)			
1.9 Technical and allocative Water use Efficiency approaches designed and adopted	1.8 Increase in groundwater monitoring and regular sampling routines established for SIDS (leading to improvements in groundwater quality) (SR)	'economies of scale'	(v) 1 basin flood risk management plan in place and a Catchment Council established in 2 SIDS (SR)			
1.10 Identification and adoption of appropriate financing approaches for sustainable water management	1.9 Functioning water & env cost recovery schemes adopted using PIC driven mechanisms to sustain env productivity balances with equitable use of water resources (P)	1.9 Weak linkages both within and outside the water sector	<u>(iv) Water Use Efficiency & Water Safety</u>			
		1.10 Reduction in ecosystem productivity and biodiversity	(i) WUE improved by 30% over baseline in 2 urban water supply systems (SR)			
		1.11 Reduction in human health and socio-economic condition due to poor and inadequate access to sanitation and safe water supplies	(ii) Water Safety Plans in place and enacted in 2 urban areas (P)			
			(iii) 20% reduction in sewage and manure pollution into fresh and marine waters for 2 urban peri-urban areas (SR)			
			(iv) 30% reduction in groundwater pollution discharge for 2 water supply systems (SR)			

Annex 6: Component 2 Evaluation: Indicators framework

The objective for this component of the project was to develop and use a suite of indicators for IWRM and WUE, enabling results-based reporting of progress and providing valuable feedback for improving future planning. A vision for the component was that in demonstrating the value of improved data collection and indicator feedback for the water sector, other sectors would be stimulated to do similar, improving national and regional sustainable development.

Our evaluation of this project component considers:

1. Whether the framework was practical and useful in improving IWRM and WUE planning and programming and better monitoring of environmental impacts;
2. The extent to which the framework was adopted at the national and regional levels; and
3. Whether the measures taken by the project were adequate in order to support and promote the adoption of the framework, especially since the Mid-term Review recommended that this should be strengthened.

Indicators are an essential component of a project monitoring and evaluation (M&E) plan, along with baselines and targets. This project component intended to develop an approach that could aggregate indicator information for use at multiple M&E levels. At the demonstration project-level, tracking of delivery was guided by project logframe activity-based indicators. In addition, results-based targets and indicators provided an effective way of monitoring progress at project output and outcome levels. At a level up from project M&E, a *National and Regional Indicator Framework* was intended to guide IWRM/WUE sector-level results-based M&E for on-going tracking of impacts against national, regional or global goals beyond the targets and life of the demonstration project.

Table 18 summarises the levels of M&E indicators adopted by each country.

At the level of activity-based tracking of demonstration project delivery, all demonstration project countries worked to, and reported against their logframe activities and indicators. The demonstration project logframes were drafted at the project preparation stage and reviewed at the inception stage once project managers and project steering committees were in place. We repeatedly heard from project managers that the concept of an activity-based logframe was new to them, but once grasped became a valuable management and communication tool. The logframe was the basis of quarterly M&E with the project steering committee and reporting. We heard for some countries how M&E against the logframes informed changes to work and resource planning, demonstrating the practical value of tracking progress.

One general observation was made by the evaluators about demonstration project activity indicators relating to water quality monitoring programmes. Although the indicators were appropriate for keeping track of activity delivery (e.g. water quality data collected), the usefulness of the indicators could have been strengthened to also provide evidence for results-based feedback on the value of the activity. This would require consideration and articulation of the question(s) the water quality monitoring was expected to answer (i.e. a clear target statement like reporting against a health or environmental standard), and giving adequate consideration to the most useful contaminants/parameters, sampling points and frequency of sampling required to judge progress towards the target. Although protecting or improving public health was repeatedly mentioned as a desired outcome, the most important water quality indicator, *E.Coli* or coliforms, was rarely mentioned in monitoring programmes or for tracking performance. When discussed with project

managers, they agreed that future projects could be strengthened by seeking specialist advice on water quality monitoring programmes, which may be beyond the capability of in-country expertise.

At the level of results-based tracking of demonstration project delivery, all demonstration project countries reported annually against an agreed country-relevant subset of the regional project M&E framework, in *Performance Indicator Reports* (PIR). The project M&E framework was derived from the original project logframe, with simplified and SMART targets and indicators that align monitoring requirements as much as practical with project activities. The framework was drafted by RTAG and endorsed at RSC3 (2011). Paper SOPAC/GEF/IWRM/RSC.3/11 presented at the 3rd RSC meeting presents the background to, and development of the project M&E framework. The framework has 34 individual process, stress reduction and environmental status indicators against which the individual country demonstration projects are assessed. Demonstration project results were communicated in the more traditional form of PIR, the more novel form of written country *Project Results Notes*, and the most influential form of informative and instructive videos. These are available on the GEF Pacific IWRM website.

Taking the project M&E framework one step further, at the level of results-based tracking of regional Pacific IWRM project delivery, the PCU was able to aggregate the country results-based reporting to report against the regional project logframe targets. Regional project results-based reporting has value for reporting to GEF implementing agencies and to participating countries through the RSC, country steering committees and country APEX bodies. Region-to-region sharing and learning of these results occurred through participation and presentations at international IWRM meetings and conferences. Grouping demonstration projects by type (watershed management, wastewater & sanitation, water resources assessment & protection, water use efficiency & safety), made it possible for PCU to aggregate results for each of these groups, providing valuable learning for replication and scaling-up initiatives. An example output that assists group learning is the RSC5 paper *Outcomes of Watershed Management Initiatives Supported by the GEF Pacific IWRM Project* (SOPAC/GEF/IWRM/RSC.5/4).

Bringing together project components 2 (indicators) and 3 (policy), an expectation for each country was to include results-based M&E targets and indicators in national sector policies and plans. These targets and indicators needed to reflect higher-level IWRM/WUE sector and national goals that reach beyond the specific targets and life of the demonstration project, enabling on-going tracking of progress and impacts¹⁴. As for the IWRM project-level M&E, the intention was to be able to aggregate the national IWRM/WUE sector results-based reporting into regional reporting. The Pacific IWRM project included a specific component on developing a *National and Regional Indicator Framework* to guide sector-level results-based M&E and reporting.

The RSC3 (2011) approved the broad approach for a regional indicator framework, and committed to developing national indicator frameworks, which would then be integrated into a regional indicator framework. The Mid-Term Review (MTR, 2012) noted that the work in developing the regional indicator framework had been slow, and that greater support was needed to countries in understanding the indicator approach and developing national indicator frameworks. The RSC4 paper SOPAC/GEF/IWRM/RSC.4/8 was the PCU's response to the MTR, and according to the minutes of RSC4, a workshop for demonstration project managers was held the week following RSC. Of

¹⁴ The initial set of indicator themes was: health, governance, human rights, resilience, economic growth and environmental sustainability. See papers SOPAC/GEF/IWRM/RSC.4/3 and SOPAC/GEF/IWRM/RSC.4/8.

relevance to progress, the RSC4 paper noted that the process to prepare *National Water Sanitation and Climate Outlook* reports, which were to inform national indicator frameworks, had not been funded as intended, causing delays. Both Tuvalu and Samoa requested support from PCU to commence developing national indicator frameworks. The RSC4 paper also notes “that conceptually the framework should be sound, but until more countries have developed frameworks, discussions on aggregation can only be based on assumptions.” During our terminal evaluation interviews we heard that Palau had since requested assistance, and heard Niue had a draft national indicator framework. We did hear that progress for Tuvalu and Palau stopped when the PCU advisor resigned.

Notwithstanding *National and Regional Indicator Framework* progress, we did hear about the inclusion of results-based targets and indicators in national IWRM/WUE (or similar) strategies and implementation plans, in many cases most likely influenced by the experiences of the IWRM demonstration project. It is worth noting that when asked about the regional indicator framework, several countries connected only with the project-level indicators, ie, their Performance Indicator Reporting.

Conclusions

From a generally unfamiliar position of project M&E processes and results-based targets and indicators, the countries have come a long way during the Pacific IWRM project. The project managers and steering committees routinely use participative monitoring, evaluation and results-based performance indicators for revision, communication and reporting. IWRM-related policies and implementation plans are increasingly incorporating M&E processes and results-based targets and indicators. As a result, monitoring data is more thoughtfully gathered and provides improved value-for-money. Although making progress at the country-level, the region seems not yet ready for a common regional indicator framework and programme.

Improving the value of water quality monitoring programmes:

Finding: Water quality monitoring programmes seemed more generic than designed to answer specific questions. An important and common omission in monitoring programmes and results-based targets was the most important water quality indicator for public health, pathogen indicator microorganisms *E.Coli* or coliforms. Furthermore, there was little evidence of doing anything with data once collected. This behaviour risks spending money on monitoring for little or no gain. Having due regard for limitations in laboratory facilities and expertise in Pacific island countries, it is the opinion of the evaluators that there is room for improvement in designing cost-effective water quality monitoring programmes to answer specific questions, and on tracking performance. More attention should be given to selecting the most appropriate contaminants/parameters, knowing acceptable levels of these (e.g. health or environmental standards), planning sampling locations to gather data with and without the intervention (e.g. traditional wet and dry-litter pig pens) and to gather data with and without interference (e.g. dry-litter pig pens near and far from septic tanks), and planning some short-term intensive sampling to take account of factors like rain that affect the transport and variability of contaminants into the water as well as less-frequent and longer-term trend sampling.

Recommendation: To support future IWRM-related projects:

- Provide practical training in water quality monitoring programme design and data interpretation;
- Strengthen the country-level capability and capacity to carry out basic microbiological water quality tests, importantly at the location of projects since there are strict time limits between sample collection and analysis;
- Make available expert support to countries to assist with or review programme design and data interpretation; and
- Include pathogens/indicator microorganism targets in results-based indicator frameworks for all human-use waters – drinking-water and recreational waters.

Table 18: Levels of M&E indicators adopted by each country

	Demonstration Project activity indicators reporting (project logframe reporting)	Demonstration Project results indicators reporting (Performance Indicator Reports)	Sub-national strategy/plan includes results indicators ^{15,16}	National IWRM/WUE (or similar) strategy/plan includes results indicators	National IWRM Indicator Framework (suitable for aggregation into Regional Indicator Framework)
Cook Islands	✓	✓		<ul style="list-style-type: none"> National Sanitation Policy and draft IWRM Policy 3-year Implementation Plan for Sanitation includes indicators 	
Fiji	✓	✓	<ul style="list-style-type: none"> Nadi Basin Integrated Flood Management Plan 	<ul style="list-style-type: none"> Draft National WATSAN Policy and Rural WATSAN Policy 	
FSM	✓	✓		<ul style="list-style-type: none"> Framework National Water & Sanitation Policy and Implementation calls for targets and indicators 	
Nauru	✓	✓		<ul style="list-style-type: none"> The national WaSH Implementation Plan includes an indicator identification purpose statement. 	<ul style="list-style-type: none"> The key issues addressed in the national WaSH Implementation Plan are very similar to the proposed indicator themes
Niue	✓	✓	<ul style="list-style-type: none"> Village Management Plans 	<ul style="list-style-type: none"> National Sanitation Policy and draft IWRM Policy 3-year Implementation Plan for Sanitation includes indicators 	

¹⁵ Not all countries prepared sub-national strategies or plans.

¹⁶ The evaluators were unable to confirm whether indicators were included in the documents highlighted in blue.

	Demonstration Project activity indicators reporting (project logframe reporting)	Demonstration Project results indicators reporting (Performance Indicator Reports)	Sub-national strategy/plan includes results indicators ^{15,16}	National IWRM/WUE (or similar) strategy/plan includes results indicators	National IWRM Indicator Framework (suitable for aggregation into Regional Indicator Framework)
Palau	✓	✓	<ul style="list-style-type: none"> Setting indicators is a first year activity in the 5-year Airai State Watershed Management Plan 	<ul style="list-style-type: none"> National Water Policy calls for measures to quantify and track water quality and water use 	<ul style="list-style-type: none"> Started
RMI	✓	✓		<ul style="list-style-type: none"> Draft National Water & Sanitation Policy and IWRM plan 	
Samoa	✓	✓	<ul style="list-style-type: none"> Watershed management plans for Apia catchment 	<ul style="list-style-type: none"> Samoa Water Sector Program and Water for Life Framework for Action, 2012-2016 	<ul style="list-style-type: none"> Started
Solomon Islands	✓	✓	<ul style="list-style-type: none"> Honiara Drinking Water Safety Plan Kovi/Kongulai Ecotourism Plan 	<ul style="list-style-type: none"> Drafting National Water Resources & Sanitation Policy and Plan, does not have targets or indicators 	
Tonga	✓	✓	<ul style="list-style-type: none"> Draft Water Resource Management Plan for Neiafu 	<ul style="list-style-type: none"> Draft National IWRM Plan does not yet have targets or indicators 	
Tuvalu	✓	✓		<ul style="list-style-type: none"> National Water & Sanitation Policy, Implementation Plan to be developed around indicators 	<ul style="list-style-type: none"> Started, indicators married up with Water & Sanitation Policy
Vanuatu	✓	✓	<ul style="list-style-type: none"> Draft Sarakata basin IWRM Management Plan Draft Conservation Area Management Plans Luganville Drinking Water Safety Plan 	<ul style="list-style-type: none"> National Water Strategy 2008-2018, and Implementation Plan 	

Table 19: Outputs, targets and evaluators' assessment summary (Component 2)

Project Strategy	Objectively verifiable indicators					Terminal Evaluation Assessment Summary
Component 2 Objective	IWRM and environmental stress indicators developed and monitored through national and regional M&E systems to improve IWRM and WUE planning and programming and provide national and global environmental benefits					
Outputs	Indicator	Baseline	Target	Source of Verification	Risks and assumptions	
Component 2 Outputs	1.1 Regional Indicator Framework (RIF) integrated into national sustainable development approaches (NSDSs and NEAPs) and national adaptation programmes for action (NAPAs) and national adaptation plans (NAPs) for disaster risk reduction (P)	1.1 National approaches do not use appropriate indicators and where they do these are single sectoral in nature	1.1 Aggregation of all final national demonstration project indicators by month 8 of the project (P)	Revised and finally endorsed Demonstration Project Proposals (available month 8)	Indicator data is available and/or the means to find/collect the data are available	From a generally unfamiliar position of project M&E processes and results-based targets and indicators, the countries have come a long way during the Pacific IWRM project. The project managers and steering committees routinely use participative monitoring, evaluation and results-based performance indicators for revision, communication and reporting. IWRM-related policies and implementation plans are increasingly incorporating M&E processes and results-based targets and indicators. As a result, monitoring data is more thoughtfully gathered and provides improved value-for-money. Although making progress at the country-level, the region seems not yet ready for a common regional indicator framework and programme.
2.1 Process Stress Reduction, Environmental and Socio-Economic Status, WUE, Catalytic, Governance, Proxy, and X-Cutting Regional Indicator Framework (RIF) established and in use	1.2 Indicator data provides evidence base for action by SIDS National Governments (P)	1.2 Communities are rarely involved in water and environmental management approaches	1.2 Draft regional Indicator Framework developed for consultation by month 18 of the project (P)	C2 Indicator Framework annual reports	Strong understanding and willingness to use and act upon the data is present	
2.2 Participatory M&E adopted within Demonstration Projects (C1) and mainstreamed into national best practice	1.3 Communities actively involved in designing, implementing and monitoring water and environment projects (P)	1.3 Monitoring is not a mainstreamed practice in national institutions responsible for water and environmental management	1.3 countries fully utilising Indicator Framework by month 36 (P)	Regional Indicator Framework progress reports	Strong willingness to participate by communities involved in Demonstration Projects and wider stakeholders	
2.3 Improved institutional capacity for monitoring and support for action on findings across the region, including Pacific RAP progress for water investment planning (and International	1.4 National expert monitoring staff available as a	1.4 Inconsistent monitoring data collection and insufficient use of information for intervention improvements and planning	1.4 Stakeholder consultation and approval of project design and PM&E plan for each national demonstration project by month 8 of the project, including separate consultations with women (P)	National Demonstration Project reporting	Willingness by national government to learn from and adopt PM&E approaches where applicable	
			1.5 National promotion and adoption of PM&E approaches by national water APEX body by month 36 of project using Most Significant Change (MSC) and reflection and learning techniques (P)	Annual national IWRM reporting by national APEX bodies	Appropriate staff are available to work with project staff and the national IWRM APEX bodies to mainstream monitoring into normal practice4	
			1.6 Relevant national country staff trained in monitoring and PM&E approaches by month 24 of the project based on needs assessment (P)	Training Needs Assessment report and Training of Trainers workshops		
			1.7 APEX body leading institutional training in consistent data collection and development of national monitoring rationale by month 36 of project (P)	National Monitoring Plans and relevant data collection records and action recommendations		
			1.8 Regional matrix in place for Pacific RAP monitoring and national	Regional matrix available online and annual investment planning reporting per country		

Project Strategy	Objectively verifiable indicators					Terminal Evaluation Assessment Summary
Component 2 Objective	IWRM and environmental stress indicators developed and monitored through national and regional M&E systems to improve IWRM and WUE planning and programming and provide national and global environmental benefits					
Outputs	Indicator	Baseline	Target	Source of Verification	Risks and assumptions	
Waters SAP)	resource to National IWRM APEX bodies and across government using systems thinking approaches (P) 1.5 Established national data collection for monitoring and access by all data base facilities with appropriate institutional mandates and powers in place for use of and action with the data for national programming, advocacy, learning and accountability (P)		investment planning by month 42 of the project (P)			

Annex 7: Component 3 Evaluation: Policy

Background

This component of the project stands apart in that it was almost exclusively funded by the European Union (EU) from 1 January 2008, and preceded other components of the IWRM project. Known to the EU as the *Pacific Integrated Water Resources Management Planning Programme*, the project was incorporated into the IWRM Project as Component 3 because of its integral fit with the need for the demonstration, indicator and capacity building components to be supported by national policy planning, legislative and coordination frameworks. Indeed, Component 3 is fundamental to ensuring the sustainability of the IWRM project as these frameworks embed the principles of integration, whole-of-government commitment and community participation that lie at the heart of IWRM.

The specific EU objective of its investment was to *improve the sustainability water resources management in the participating Pacific Island Countries through the increased involvement of regional, national and local stakeholder groups in national, catchment and community scale water governance*.

The specific IWRM Project objective of Component 3 was to *support Pacific Island Countries to develop national IWRM policies and water efficiency strategies, endorsed by both government and civil society stakeholders, and integrated into national sustainable development strategies*.

At interview it was explained to the evaluators that the reason to incorporate the EU project into the IWRM project, under UNEP supervision, was to 1) reduce the possibility of duplication of effort and hence increase efficiency of resource use at both the individual country and regional level (SOPAC hosted both the IWRM and EU coordination mechanisms); 2) meet expectations of both the GEF and EU that their projects would leverage partnership funds; and 3) reinforce the need for water to be managed through integrated frameworks and not to divorce these from on ground action and capacity building.

The schedule and budget for this component over 1 January 2008 through to June 2012 was €2.82 million of EU funds with co-financing of €1.02 million provided by GEF, NZAID and Australian Aid.

Our evaluation of this project component considers:

1. Whether the component met its projected objectives, outputs and outcomes i.e. the extent to which policies, plans and related institutional frameworks were adopted by participating PICs; and
2. Whether the measures taken by the project were adequate in order to support and promote the adoption of component outputs.

Implementation

While the EU project was ostensibly nested under Component 3 of the IWRM Project, in reality its resources also supported Component 2 (Indicators), Component 4 (Capacity Building) and contributed towards overall IWRM Project coordination. From a *modus operandi* perspective, Component 3 was also closely related to Component 1 at the country level in that the administrative and coordination arrangements for the demonstration component activities blurred with the policy component activities. Indeed, following the formal completion of the EU project, many of the policy activities continued to be pursued within each participating PIC and to a large extent the same

people involved in demonstration activities were also involved in policy ones. During interviews, many country program coordinators suggested they placed less distinction between project components than the delineations outlined in formal project documents.

In an attempt to capture the formal and informal processes at play in Component 3, Figure 5 outlines its sub-components and how each of these related not only within Component 3 but across other IWRM Project components as well.

Component	Expected results	Integration across IWRM project components
Regional IWRM Resource Centre	Operational resource centre, improved communication and coordination, indicators developed	Related to all IWRM components, but provided a legacy for longer term capacity building (C4) in particular
National and catchment partnership promotion	Progress towards establishing informal and formal partnerships	Related to capacity building in particular, but partnerships helped support on-ground activities (C1)
Political and public awareness raising of IWRM	Awareness of IWRM improved at the political, public and school level	Related to all IWRM components
Support to national initiatives to develop IWRM policies & plans	Strengthened national consultation interim partnerships. Policy consultation	Related to C3 in particular, providing a framework for C1,2&4 (on-ground work, indicators & capacity building)
Promoting IWRM good governance policies and strategies	Commencing IWRM water governance. Policies and plans drafted and formally endorsed	Related to all IWRM components
Capacity building	Improved partnership ability to deliver good IWRM governance	Related to C4 in particular, providing the capacity to effectively implement C1-3

Figure 5. Policy sub-component relationships to all IWRM Project Components

Achievement

At the time of the Mid Term Review, and even upon completion of the EU project in 2012, this Component appeared more aspirational than realistic. The development of national integrated water policies, plans, legislation and/or regulations, by necessity involving inter-agency and often inter-jurisdictional cooperation, is always a complex and difficult task for any country, let alone small island nations and territories where water and related environmental issues are often considered as secondary priorities to those of national economic and infrastructure development. The final achievements therefore are somewhat surprising, and highly commendable in that the aim of having all countries adopt national policies based on IWRM principles was largely accomplished.

In assessing the achievements of Component 3, the evaluators chose to dissect the term policy, which is often used generically to encapsulate very divergent means by which government can seek agreement upon and then act to achieve particular goals outcomes. Table 20 provides a summary of

the IWRM project achievements influenced by Component 3, differentiating different policy mechanisms from highly centralised to largely decentralised. These mechanisms include:

- a) Intergovernmental functions and national policy: These are formal agreements between governments to work towards specified objectives as well as national policies/legislation that prescribe collective and individual agency activity.
- b) Inter and intra-governmental coordination: These are mechanisms established to ensure government agencies at similar and / or hierarchical levels cooperate in the implementation of national policy.
- c) Regulation by prescription: These are mandatory (legal) requirements that must be met under specific laws/legislation.
- d) Planning processes: These are strategic and administrative procedures and modus operandi by which agencies prescribe and authorize desired action (i.e. building codes).
- e) Funding functions: These are incentive programs or investment initiatives that provide subsidies or co-investment as a means of stimulating the uptake of particular actions.
- f) Information support: These are publicly funded means of providing information to the public to better inform decision making.
- g) Market and civil society arrangements: These are instruments of government that can gain industry cooperation through deriving private benefit from public good services. It also covers mechanisms by which government can help citizens cooperate and take action.

It needs to be stressed that Table 20 only includes those initiatives where IWRM project activity had some level of input and influence, from refinement, reinvigoration or supplementation of existing policies through to conception, drafting and submission for government endorsement of new policies. Blank boxes do not necessarily indicate that there is a gap in a country's portfolio of policies, merely the IWRM Project was not a significant player in that area. Also, having many empty boxes against the 'information' column, for example, does not reflect absence of IWRM Project activity but rather that the IWRM activity was different to what the evaluators would call policy work. Here the substantial education and awareness raising activities are ascribed to Component 4 achievement rather than Component 3 achievement. In some cases, empty boxes down columns will be filled over time as a legacy of IWRM project activity, for example where the passage of recent water policy may not yet have been translated into implementation plans, regulation or prescribed codes at this point in time.

As can be seen from Table 20, nearly all PICs drafted, enacted or revised national policies consistent with IWRM principles. In most cases, these were endorsed or sought to be endorsed by PIC governments in 2012 or 2013, the final two years of the IWRM Project. Indeed, much of this accomplishment was achieved after the formal completion of the EU funding. This suggests that the mechanisms put into place during the EU support period were enduring and in themselves catalytic. It also reinforces the country coordinator perspective that the IWRM Components were in a sense arbitrary; necessary to serve administrative, management and reporting purposes, but in the longer term integral to and inseparable from the overall fabric of the IWRM Project.

The catch cry of Community to Cabinet proved not to be rhetoric. All countries provided significant opportunities for community participation at many levels, with almost half of them including some

form of civil society representation on APEX bodies (national water policy committees) and all of them including such representation on project steering committees, watershed management committees or local advisory committees. Certainly public participation was a hallmark of many IWRM activities, an issue discussed in more detail under Component 4. Several interviews with policy participants suggested that this process was not only important in the political process of gaining the public's imprimatur for IWRM policy, but it provided tangible benefits by matching the PCU's demand for IWRM implementation plans with a ground up demand that these be put into place to ensure policy translated into local action. Table 20 shows that more than half the endorsed national water policies are complemented by implementation plans of one kind or another.

Case study: Covering all policy bases under the Nadi Flood Risk Management Plan

An excellent case study of the impact the IWRM project has had simultaneously against several columns of policy activity is the Nadi Basin Integrated Flood Risk Management Plan. This plan drew upon the cooperation and input of community to cabinet organisations under the Nadi Basin Catchment Committee, involved a Memorandum of Understanding to underpin smooth implementation of the plan and its hierarchy of responses, improved the information base and technology upon which to forecast and then sound alerts, identified priority areas to mitigate potential flood risk, engaged local community leaders and members in disaster management actions groups, provided training in disaster risk management and provided the basis for feedback and continuous improvement in the systems in place. Since the Plan was prepared and agreed to, there have been two significant floods, neither of which resulted in loss of life primarily due to enacting systems that had previously been based.

Noteworthy in the policy achievements has been the inclusion of sanitation as a fundamental rather than parallel policy objective in much of the policies, legislation and plans. This reinforces the fundamental consideration of public health as a driver for improved water management. For this reason, it is notable that while most countries engaged some level of health agency participation, this did not extend to specific health focussed donors.

Conclusions

Ultimately most of the important Targets set out in the Component 3 section of the IWRM Project Logframe were met, although the attempt to write the Targets as SMART was, in the minds of the evaluators, highly ambitious. The endorsement of policy and the prescription of formal APEX bodies is ultimately a political process and a process that is influenced by a country's political and cultural institutions and sometimes writ-in-stone by its constitution.

That said, the IWRM Project did remarkably well to have achieved the drafting and often the endorsement of national policies and plans consistent with IWRM principles. In most cases the drafting, submission or endorsement of policy did not occur in the target timeframes. That they occurred at all during the life of the IWRM Project could be attributed to the one principle that could be said to be the hallmark of the Project: the principle of community to cabinet engagement.

In this respect, it was not so much the IWRM project that drove the policy achievements but rather the citizens, NGOs, churches, and local to national political actors, no doubt empowered by the opportunities provided by IWRM project funds, committee responsibilities and on ground activities.

Without community support, there would be no real ownership of policy - it would simply be relegated to a short-term obligation and opportunism. In this respect there is hope that Component 3 will provide the basis for the IWRM Project's long-term legacy.

Realistically, the extent to which countries demonstrate ownership of and commitment to IWRM principles will be whether they allocate sufficient resources to see plans and strategies in support of national policy implemented. In most cases, the GNP of most of the PICs makes implementation difficult without donor assistance. For this reason, the value of many of the national policies and APEX bodies will be to provide confidence to donors that their funds will be used efficiently and directed appropriately towards areas of need under arrangements that are accountable, inclusive and appreciative.

Table 20: Policy areas where the IWRM Project has had significant influence

Country	Intergovernmental / national policy	Inter and intra-governmental coordination	Regulation by prescription	Planning processes	Funding mechanisms	Information support	Market and civil society arrangements
Cook Islands	<ul style="list-style-type: none"> • National Sanitation Policy • Draft IWRM Policy • Draft Water Supply Policy 	<ul style="list-style-type: none"> • National Water Committee 				<ul style="list-style-type: none"> • IWRM information centre for Muri Lagoon 	
Fiji	<ul style="list-style-type: none"> • National Water & Sanitation Policy • Groundwater Resources Exploitation & Management Policy • Rural water Sanitation Policy 	<ul style="list-style-type: none"> • Nadi Basin Catchment Committee 		<ul style="list-style-type: none"> • Nadi Basin Integrated Flood Risk Management Plan 		<ul style="list-style-type: none"> • IWRM Resource Centre • Flood alert system for Nadi 	
FSM	<ul style="list-style-type: none"> • Water & Sanitation Policy Framework 	<ul style="list-style-type: none"> • National Water Task Force 		<ul style="list-style-type: none"> • Creation of a watershed forest reserve, Nanpil 		<ul style="list-style-type: none"> • Education hut built at Nanpil 	
Kiribati	<ul style="list-style-type: none"> • National Water Resources Management Policy • National Sanitation Policy 	<ul style="list-style-type: none"> • National Water Resources Management Implementation Plan • National Sanitation Implementation Plan 					
Nauru	<ul style="list-style-type: none"> • National IWRM Water and Sanitation Policy 	<ul style="list-style-type: none"> • Project Steering Committee (Surrogate APEX body) • Water Technical Committee • Creation of a Water Unit • Draft IWRM implementation plan 					<ul style="list-style-type: none"> • Creation of the National Community Based Organisation (NCBO)

Country	Intergovernmental / national policy	Inter and intra-governmental coordination	Regulation by prescription	Planning processes	Funding mechanisms	Information support	Market and civil society arrangements
Niue	<ul style="list-style-type: none"> Niue Water Act 	<ul style="list-style-type: none"> Niue Water Steering Committee Draft IWRM Plan Village IWRM plans for Alofi North and South 		<ul style="list-style-type: none"> Review of building codes National collection and disposal mechanism installed 			
Palau	<ul style="list-style-type: none"> National Water & Sanitation Policy endorsed by president but not yet promulgated 	<ul style="list-style-type: none"> National Water Sub-committee of the National Environmental Planning Council Ngerikill Watershed Management Plan 		<ul style="list-style-type: none"> Designated protection areas in Airai province 			
RMI	<ul style="list-style-type: none"> Draft National Water & Sanitation Bill 	<ul style="list-style-type: none"> National Water Task Force 				<ul style="list-style-type: none"> Laura Lens Learning Centre 	<ul style="list-style-type: none"> Micro loans for dry litter pig pens and compost toilets Laura Lens Community Advisory C'ttee
Samoa	<ul style="list-style-type: none"> Watershed Conservation Policy 	<ul style="list-style-type: none"> Samoa Joint Water Sector Steering Committee 2012-2016 Water for Life Framework for Action 		<ul style="list-style-type: none"> Watershed management plans for Vasisigano and Fuluasou 	<ul style="list-style-type: none"> Purchase of upland above Apia to act as a watershed conservation zone 		
Solomon Islands	<ul style="list-style-type: none"> Draft National Water and Sanitation Policy 	<ul style="list-style-type: none"> National Inter-sectoral Water Coordinating Committee Draft National IWRM Policy and Implementation Plan and Water Safety Plan 		<ul style="list-style-type: none"> National Ecotourism Plan 			<ul style="list-style-type: none"> Kovi/Kongulai Community Catchment Committee
Tonga	<ul style="list-style-type: none"> Draft National Water Bill and Water Resource Management Policy 	<ul style="list-style-type: none"> National Water Resources Committee Draft National Integrated Water Resource Management Plan Neiafu Water Resource Management Plan 	<ul style="list-style-type: none"> National Water Regulations 				<ul style="list-style-type: none"> Neiafu Aquifer Management Committee Incentives for private businesses to service septic tanks

Country	Intergovernmental / national policy	Inter and intra-governmental coordination	Regulation by prescription	Planning processes	Funding mechanisms	Information support	Market and civil society arrangements
Tuvalu	<ul style="list-style-type: none"> • Draft Water Act and Water Policy 	<ul style="list-style-type: none"> • Sanitation Steering Committee • National Water and Sanitation Plan 		<ul style="list-style-type: none"> • Improved national disaster planning • Review of building codes • Review of national disaster arrangements 			
Vanuatu		<ul style="list-style-type: none"> • National Water Resources Advisory Committee • National IWRM Plan, drawing on the 2008-2018 National Water Strategy 		<ul style="list-style-type: none"> • Sarakata Watershed Management Plan 			

Table 21: Outputs, targets and evaluators' assessment summary (Component 3)

Project Strategy	Objectively verifiable indicators					Terminal Evaluation Assessment Summary			
Component 3 Objective	Supporting countries to develop national IWRM policies and water efficiency strategies, endorsed by both government and civil society stakeholders, and integrated into national sustainable development strategies								
Outputs	Indicator	Baseline	Target	Source of Verification	Risks and assumptions				
Component 3 Outputs	1.1 National IWRM Plans in place and adopted by SIDS National Governments with appropriate resources to implement and monitor & strategic links made to NAPAs and NAPs, NSDSs and coastal resources management plans (P)	1.1 No nationally endorsed IWRM plans in place 1.2 Water use efficiency measures not considered (or only focusing on technical efficiency) 1.3 APEX bodies in place but with weak or no mandates/ToR, budget, or authority 1.4 Adhoc awareness campaigns for water management, with little engagement with the private sector, civil society or the education sector	1.1 14 draft National IWRM plans produced by month 18 of the project, with final versions published by month 24 (P) 1.2 14 draft Water Use Efficiency Strategy documents produced by month 18 of the project, with final versions published by month 24 (P) 1.3 National recruitment of support adviser to national APEX bodies by month 6 of the project (P) 1.4 Strategic IWRM communication plan framework for individual national development in place by month 12 of the project (based on Regional Communication Strategy in place by month 5) with national development and implementation by month 24 (P) 1.5 Multi-sectoral participation in national APEX bodies by month 12 of the project with 33% female membership (including private and education sector membership and national finance and economic planning units(P) 1.6 Replication Framework in place by month 6, Replication Toolkit in place by month 24, National scaling-up and replication strategies in place based on Demonstration project success and failures for each country by month 54 of the project (P)	National IWRM Plans and Water Use Efficiency Strategies	Appropriately qualified national staff available Stakeholders willing to participate Country and catchment priority issues exist Early partnerships continue to exist and function. Partnerships have capacity to use support tools or work with external advisors Partnerships maintain capacity and external examples of good practice exist and can be adapted for SIDS				
3.1 National IWRM plans and WUE strategies developed and endorsed				National IWRM Roadmaps					
3.2 Implementation of IWRM approaches agreed across national, community and regional organisations				Other National Plans (Sanitation action Plans, etc)					
				Contract and annual performance reviews of Advisers to national APEX bodies					
				National IWRM communication plans and materials produced (videos, webshots, websites, articles, press releases, speeches, posters, workshop reports, meetings, community theatre productions, radio stories/interviews, work stories, community meeting notes, APEX body Terms of Reference, membership log, minutes, other national APEX body meeting minutes)					
3.3 Strengthened and sustainable APEX water bodies to catalyse implementation of national IWRM and WUE plans, including balanced gender membership				1.2 National Water Use Efficiencies in place and adopted by SIDS National Governments with appropriate resources to implement and monitor (P)		1.4 Multi-sectoral participation in national APEX bodies by month 12 of the project with 33% female membership (including private and education sector membership and national finance and economic planning units(P)	National IWRM communication plans and materials produced (videos, webshots, websites, articles, press releases, speeches, posters, workshop reports, meetings, community theatre productions, radio stories/interviews, work stories, community meeting notes, APEX body Terms of Reference, membership log, minutes, other national APEX body meeting minutes)		
3.4 Awareness raised across civil society, governments, education systems and the private sector				1.3 Regularly meeting capable IWRM APEX bodies responsible for the coordination of national IWRM activities including sharing		1.5 Few operation and maintenance plans for infrastructure in place	National Scaling-Up and Replication		

Project Strategy	Objectively verifiable indicators					Terminal Evaluation Assessment Summary
Component 3 Objective	Supporting countries to develop national IWRM policies and water efficiency strategies, endorsed by both government and civil society stakeholders, and integrated into national sustainable development strategies					
Outputs	Indicator	Baseline	Target	Source of Verification	Risks and assumptions	
3.5 Sustainability strategies developed focusing on institutional and technical interventions required for Demonstration scaling-up as part of National IWRM Plan development and implementation	experience regionally with other SIDS IWRM APEX bodies (P) 1.4 IWRM communicated and mainstreamed into national working practices, including national school curricula (P) 1.5 National budgeting and financial planning for x-sectoral IWRM approaches included within Treasuries/Financial Ministries (P)	1.6 Few asset management plans or approaches developed 1.7 Unwillingness to change institutional situation to improve water governance		recommendation reports Regional Indicator Framework progress reports and National Monitoring Plans National Demonstration Project reporting Regional matrix available online and annual investment planning reporting		Realistically, the extent to which countries demonstrate ownership of and commitment to IWRM principles will be whether they allocate sufficient resources to see plans and strategies in support of national policy implemented. In most cases, the GNP of most of the PICs makes implementation difficult without donor assistance. For this reason, the value of many of the national policies and APEX bodies will be to provide confidence to donors that their funds will be used efficiently and directed appropriately towards areas of need under arrangements that are accountable, inclusive and appreciative.

Annex 8: Component 4 Evaluation: Capacity building and engagement

This component was a key enabler of what has been achieved in the Pacific IWRM project, and the component's legacy becomes a key enabler of national and regional IWRM sustainability. Our broader consideration of IWRM sustainability is covered in the Findings section D. In this annex, we focus our assessment two specific enablers of sustainable IWRM, capacity building and engagement. Engagement has two functions, one as a process for capacity building, and the other for bringing the appropriate people together to deliver for a variety of purposes.

Capacity building

Capacity building is about understanding and overcoming the obstacles that inhibit action towards achieving goals. It refers to strengthening the skills, competencies and abilities of individuals, communities of practice and organisations. Capacity building uses human, scientific, technological, organizational, and institutional and resource capabilities. For our assessment of capacity building, we consider the formal and informal processes that have built skills and confidence, and generated new knowledge, resources, tools and processes for the benefit of community, national and regional participants. We comment on the sustainability of the capacity developed thus far in Pacific IWRM.

An effective capacity building programme needs to establish conditions that will allow individuals, communities of practice and organisations to engage in the process of learning and adapting to change. We note there was a strong philosophy and practice of learning-by-doing (experiential learning) during the project, and importantly mechanisms were in place to springboard off the collective experiences (lessons learned) to broader and higher levels of learning.

In an attempt to capture the formal and informal capacity building activities in the Pacific IWRM project, Table 22 outlines the types of capacity building delivered, who were the trainers and recipients, and the approaches used to build these capabilities.

Table 22: Capacity building in the Pacific IWRM project

Capacity building in	Provided by whom	Provided to whom	Approaches
Project management	PCU	All National project managers	RSC sessions, one-on-one country visits, feedback on planning and reporting documentation, project-specific tracking and reporting tools
	National project managers	National project managers	RSC presentations, RSC informal discussions
	National project managers	Self & project officers	Trial and error, websites, asking or receiving from manager or country peer
	National project managers	Departmental managers, Project steering committees and APEX bodies, demonstration site communities	Face-to-face presentations, routine PM&E process
Knowledge of IWRM principles	International Water Centre, Australia	Selected National project managers, project officers, steering committee members	Formal graduate qualification in IWRM, mostly distance learning, some block modules
	National project	Project steering	Face-to-face presentations, demonstration

Capacity building in	Provided by whom	Provided to whom	Approaches
	managers	committees and APEX bodies, demonstration site communities, general public	site resource centres, media (tv and radio), country videos
	National project managers	National project managers	RSC presentations, RSC informal discussions, country videos
	National project managers	Self & project officers	Websites, asking or receiving advice from manager or country peer
	Other sector or region IWRM programmes	PCU, RSC	Cross-regional or cross-sector learning through twinning, participation in meetings
Technical competence in IWRM practice	PCU technical advisors, RTAG, consultants	National project managers, technical staff of government departments	RSC sessions, one-on-one country visits, lessons learned compilation reports
	Professional technical trainers	Departmental experts and technical contractors	Formal training courses
	National project managers	National project managers	RSC presentations, RSC informal discussions, twinning visits, Pacific IWRM website demonstration project documents, country videos
	Departmental experts	Demonstration project participants	Assistance in the field
	National project managers	Self	Trial and error, websites, asking or receiving advice from manager or country peer
	Other sector or region IWRM programmes	PCU, RSC	Cross-regional or cross-sector learning through twinning, participation in meetings
Policy development	PCU policy advisors, policy consultants	National project managers, policy staff of government departments	Steering committee and APEX body workshops
	National project managers and policy officers, community consultation experts	National project managers, policy staff of government departments, community-to-cabinet	Community consultation workshops
Community engagement	National project managers, community leaders, community engagement experts	Specific communities, general public	Community information and consultation workshops, demonstration site resource centre and local resource material, technology demonstrations, World Water Day and similar activities, school visits, media
	Project steering committees	Demonstration site communities	Project managers supporting local ownership, supporting the steering committees to have the leadership and decision-making responsibility, and accountability for project delivery, outcomes and local benefits
Communication	PCU, communications consultants and practitioners	National project managers, steering committees, national/departmental communications advisors	RSC presentations, story-boarding and recording stories over time, preparing results-based videos, media interviews

Highlighting capability in Demonstration Project Managers

The country project managers had the responsibility to implement and manage the demonstration projects. They were accountable, formally, to SOPAC and the relevant focal Ministry. Informally, they were also accountable to the communities with which they worked, and their RSC peers. Formal project management, especially UN-style, was new to many. The level of detail and processes for planning and reporting was a huge challenge at the start. The PCU recognised this capability gap in its planning, and developed appropriate tools and templates to streamline project management, and provided training. The Pacific region now has a group of competent project managers who can plan projects, prepare logframes, manage delivery of services, monitor and report on progress and results, represent financial reports, and tell compelling stories about IWRM successes.

The knife-edge of such success is that with increased competency comes increased career opportunity. Retention of experienced and competent people is a significant issue for the Pacific.

Highlighting IWRM Graduate Certificate

The Pacific IWRM project made available the opportunity for RSC members to study for a formal qualification in IWRM while participating in the project. Sixteen students from 10 PICs graduated from the International Water Centre with a Graduate Certificate in Integrated Water Management. The course covered papers in project management, science of water, water development and sustainability, and water governance and policy. The Centre was founded by four of Australia's leading Universities (The University of Queensland, Griffith University, Monash University and The University of western Australia) and collaborates with many international researchers and practitioners.

Highlighting technical awareness material

The project has produced a significant amount of readily accessible technical material. Much of this is in forms that have value for wide-ranging audiences, not just water professionals. The real value in the material is that it is situated in the demonstration projects. Local audiences can immediately connect to "their place" and the wider Pacific can connect to places and issues similar to their own. The video material produced as part of the Pacific IWRM project is world-class, produced by Oceania Television with which the Pacific IWRM project has a partnership. The Pacific IWRM webpage provides open access to regional planning and achievement videos, national issue and progress videos, and practical technical videos.

Engagement

A powerful element of capacity building is engagement, but engagement fulfils additional purposes in any initiative such as the IWRM Project. Among these other purposes are:

- 1) Fostering ownership and equity, with benefits for longer term sustainability;
- 2) Seeking agreement upon priorities and public imprimatur for action;
- 3) Rallying collective and individual action;
- 4) Coordinating collective and individual action;
- 5) Eliciting financial, administrative and moral support;
- 6) Demonstrating proof as a precursor to upscaling;
- 7) Providing accountability; and

8) Building understanding: avoiding people and organisations receiving unpleasant surprises.

IWRM Project engagement planning documents aggregated these purposes into the three categories of gaining project ownership; laying down the platform for replication and upscaling; and ensuring national policy reflected on-ground needs. By whatever definition or aggregation, engagement was according to many stakeholders from government officials to local community members interviewed by the evaluators, the hallmark of the IWRM Project.

From its commencement, the IWRM Project placed a significant emphasis on stakeholder involvement and increasing awareness on the issues being addressed by the Project. The Mid Term Review highlighted that public involvement had been evident, indeed “mainstreamed” from the preliminary work undertaken in the PDF-B stages to design the project through to the positive examples seen in the national demonstration activities stakeholder involvement (in the form of participation in steering committees, basin or community management groups, etc.). Good levels of engagement continued beyond the Mid-Term cycle of the Project, although never reached the levels of earlier years. The reason provided at many interviews was that 2013 represented a concerted effort by the regional and country coordinators on project completion and report preparation as well as planning for R2R in the latter part of that year. In some countries, such as RMI, project steering committees had not met for up to twelve months prior to the evaluator’s mission in December 2013 and January 2014. This issue is discussed further below.

Engagement in the IWRM Project essentially had two elements; outreach and inreach. Examples for each of these elements as they applied to the IWRM Project are outlined in Table 23. Essentially the outreach activities were those that engaged broader stakeholders for the purposes 1-8 outlined above. The kind of activities relevant here included the establishment and facilitation of local steering committees, participation in local trials such as testing dry litter pig pens, conduct of awareness campaigns during World Water Day, school visits, community seminars and the like. Inreach activities were solidarity-building ones that bonded the immediate family of IWRM collaborators. Examples here included the establishment and conduct of the Regional Steering Committee, internal knowledge exchange through sharing lesson learnt, and missions between the PCU and participating PICs among other activities. Another way of viewing the difference between the outreach and inreach elements of the IWRM Project is that the former was largely about effectiveness while the latter was largely about efficiency, including the catalytic role of efficiency in achieving effectiveness.

Table 23 focuses on the tangible, technical and institutional mechanisms of engagement, with more direct two-way, decision-making forms of engagement preceding less direct forms that may lead to two way engagement. In an initiative such as the IWRM Project, a major element that needed to be dealt with was the cultural aspects relating to traditional community, tribal and inter-island practices, rights and interests. For this reason, the modus operandi of the overall IWRM Project approach to engagement was to devolve responsibility for it to as local a level as could be achieved while retaining accountability (i.e. providing evidence that engagement was actually happening) and rigour (i.e. ensuring engagement had purpose and appropriateness and IWRM messages were sound). For this reason, the confidence provided through inreach activities among the country project coordinators supported their efforts at the local scale where they were all by and large culturally embedded. Indeed, in almost every country the country coordinators were well known and accepted by local communities. In islands as small as the PICs, it should hardly be surprising that

many were closely related either by kinship or friendship with most of the key target stakeholders. In many of the PICs, the church was represented on various committees, from local advisory committees such as in Tonga for example, through to National APEX Bodies such as in Tuvalu.

The establishment of APEX and other policy related committees within participating PICs is discussed under Annex 7 (Component 3) and whilst a highlight, does not warrant repeated discussion here. In many ways, however, the highlight of engagement for the evaluators was the Regional Steering Committee (RCS) process. To our minds, without this, many other forms of engagement would have been much weaker and some may not have occurred at all. Indeed, nearly all members of the RCS interviewed by the evaluators stated emphatically that the RCS was pivotal to the success of the overall IWRM Project. These meetings were used to provide countries with a sense of Project level ownership, reinforced by rotating Chairpersons selected from the participating PICs. They also formed the basis of building a strong peer network that both formally and informally provided an avenue for collaboration, knowledge exchange, motivation and encouragement, venting frustration, sharing success and resolving issues. The RCS meetings were used to build capacity (see previous section on matters such as training) but most importantly to get things done. Many long days and nights were spent preparing plans and strategies and writing reports - RCS meetings were not merely fora for discussing agenda items. This meant that committee members saw practical value in the meetings and in the network, and it reflected the results oriented focus of the PCU that was underpinned by a push to extract lessons learned from all activities in the IWRM Project and to reflect on these. This is a model desperately in need of replication across other complex programs including those supported under UNEP, UNDP and other donors. The model focusses on heartfelt commitment to outcomes rather than contracted obligation to process.

The IWRM Project twinning programme acted as a means of cross-regional engagement. Building on the relationships formed across the RSC, the twinning programme resulted in some valuable exchanges and sharing of expertise, none more successful than in respect to the compost toilets work led by Tuvalu. This example demonstrates how the RSC network not only underpinned the formal twinning programme of the IWRM Project, but stimulated greater than initially expected interest in an IWRM technology across PIC. Pisi Seleganiu, the Tuvalu project coordinator, not only participate formally in a twinning activity with the RMI, but was constantly in demand by other PICs to provide advice on technical and sanitation issues in relation to the toilets. Indeed, so successful was this work that it was presented to Caribbean SIDs, where there has been great resistance to the concept. It was unfortunate therefore that the twinning programme was one of the victims of a budget cut after the initial design phase.

An important element of the twinning work was that through engagement across PICs, capacity has been built at the regional level. This means can mitigate the risk for the region of holding expertise in just one person.

Table 23: Engagement mechanisms commonly used in the IWRM project and their outcomes

Outcome Mechanisms	Ownership	Agreement on priorities	Rallying action	Coordinating action	Eliciting support	Moving towards upscaling	Showing accountability	building understanding
Formal group processes (direct engagement)								
Regional Steering Committee	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓
APEX Committees	✓	✓	✓	✓	✓	✓	✓	
Project Steering Committees	✓	✓	✓	✓	✓	✓	✓	
Watershed Committees	✓	✓	✓	✓	✓	✓	✓	
Local advisory committees	✓	✓	✓	✓	✓	✓	✓	
Technical working committees	✓✓	✓✓	✓✓	✓✓	✓	✓✓		✓✓
Memoranda of Understanding	✓	✓	✓	✓		✓	✓	
Youth groups/Women's groups	✓	✓	✓	✓	✓	✓		
Consultative processes (direct engagement)								
Regional Missions	✓		✓	✓	✓	✓	✓	✓
Public consultation meetings			✓		✓	✓	✓	
Household visits			✓		✓	✓		
Technical, trialling and extension processes (direct engagement)								
Technical workshops		✓		✓✓	✓✓	✓✓		✓✓
Participation in demonstrations			✓	✓	✓			✓
Demonstration site visits			✓		✓	✓		✓
Community learning centres			✓		✓			✓
Group action (direct engagement)								
Tree planting / clean-up days			✓	✓	✓			✓
Participatory monitoring			✓	✓	✓			✓
Group discussions			✓	✓	✓			✓
Education and awareness mechanisms (seeking engagement through interest and feedback)								
Government briefings					✓	✓	✓	✓
School Visits			✓		✓			✓
National / Regional Summits			✓		✓	✓		✓
World Water Day events			✓		✓	✓		✓
Conference presentations					✓			✓
Communication mechanisms (seeking engagement through interest and feedback)								
Newsletters					✓	✓		✓✓
Website					✓✓	✓✓		✓✓
Factsheets								✓✓
✓ = inreach ✓+ = outreach								

Returning to an issue raised previously, the IWRM Project engagement process was not uniform over time. Figures 6–8 show a universal pattern at the country and regional level whereby engagement reached a peak around 2011. Notwithstanding that the small populations of PICs can result in engagement fatigue, and that some PIC demonstration activities were more focussed on policy than technical outputs (i.e. once a policy is adopted it doesn't need adopting over and over again), the evaluators are concerned that insufficient attention was given to 1) reinforcing messages through repeated but diverse (thus interesting) forms of engagement; 2) differentiating forms of engagement over time according to the phases of each demonstration project i.e. moving from priority identification through to activity adoption; and 3) developing specific exit strategies for the project beyond the aspirational replication strategies developed early in the project. That said, the peak in engagement in 2011 relates to a concerted effort to celebrate World Water day in 2011 and so set a high bar difficult to maintain. Moreover, the PCU and RCS members are to be commended for keeping excellent records on engagement. The point to be made, however, is that with strengthened communication and engagement capacity now built across the IWRM family, future communication and engagement strategies could become more sophisticated than simply targeting generic audience stereotypes with generic mechanisms. A whole of life strategy should be tailored for each audience in R2R for example.

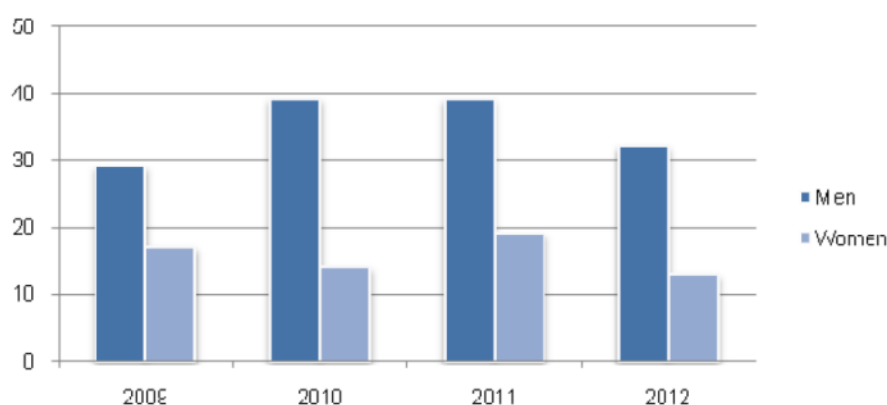


Figure 6: Regional steering Committee membership (note the peak and decline) (Source: SOPAC 2013b)

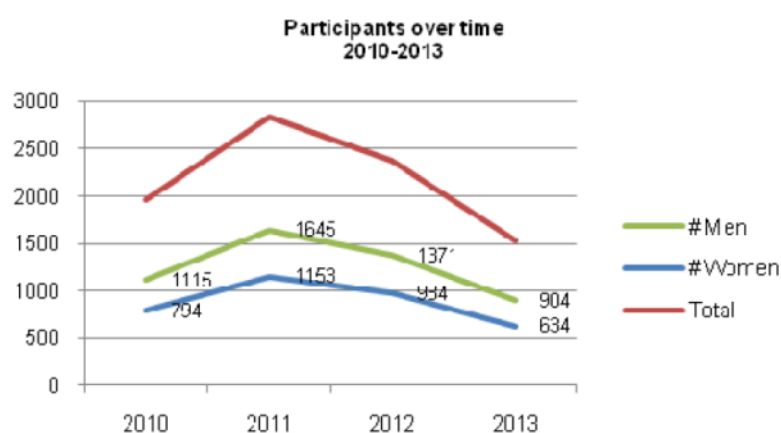


Figure 7: Total participants in IWRM activities (Source: SOPAC 2013b)

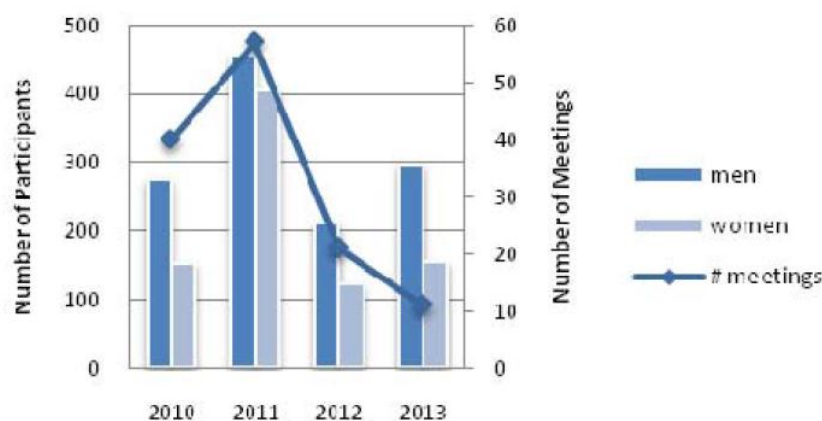


Figure 8: Total committee meetings and participants (Source: SOPAC 2013b)

Conclusions

From a baseline of few opportunities, regionally and nationally, for relevant training in project management, IWRM practice and policy development, and few opportunities to capture and share experiences and lessons, the Pacific IWRM project has delivered on its Component 4 outputs of upgrading national and regional skills, having in place active twinning programmes, and knowledge management networking and information sharing. The visible outcome of this capacity building is in the strengthened skills, competencies and abilities of demonstration project managers and project committees in particular. However, it is less clear whether these capacities, which are most strongly held in individuals, are sustainable capacities.

As for engagement, we cannot emphasise strongly enough that we share the view of many Project participants that this was a hallmark of the IWRM Project, at regional, national and community levels. The one concern is the decline in engagements rates at the very phases of the project where results were highly communicable, from the perspective of seeking the adoption of project results as well as avoiding the loss of momentum as IWRM seeks to achieve replication and upscaling in R2R.

Table 24: Outputs, targets and evaluators' assessment summary (Component 4)

Project Strategy	Objectively verifiable indicators					Terminal Evaluation Assessment Summary
Component 4 Objective	Sustainable IWRM and WUE capacity development, and global SIDS learning and knowledge exchange approaches in place					
Outputs	Indicator	Baseline	Target	Source of Verification	Risks and assumptions	
Component 4 Outputs 4.1 National and regional skills upgraded in project management and monitoring including water champions and APEX bodies for both men and women 4.2 Active twinning programmes in place between countries facing similar water and environment degradation problems 4.3 Effective knowledge management networking and information sharing inter and intra-regional	1.1 Water champions identified and active in awareness raising by month 9 of the project (P) 1.2 Twinning exchange programmes in place between countries and regions (Caribbean and African SIDS) (P) 1.3 Dynamic regional CPD training workshops and networking through existing CROP agencies and IW LEARN approaches including strategic links to other GEF initiatives throughout project, reviewed and appraised annually (P) 1.4 Comprehensive IWRM and WUE data warehouse facility using	1.1 Few twinning opportunities and little information exchange and lesson learning between countries and regions 1.2 Training workshops in place but often sectoral and technical in focus 1.3 Few opportunities for training on IWRM, sustainability issues, investment planning, and monitoring within the context of IWRM 1.4 No comprehensive IWRM and WUE data store of information available to PICs or other global SIDS	1.1 IWRM awareness programs integrated into normal institutional practices with appropriate budget approved by month 48 of project (P) 1.2 Five twinning exchange programs in place between countries by month 42 of the project and at least 1 program with the Caribbean on IWRM planning underway for a similar program with African SIDS (P) 1.3 Cross-sectoral regional learning mechanisms (communities of practice) in place including x-project workshop attendance for the GEF funded projects: PACC, SLM, and the ADB CTI project reviewed annually (P) 1.4 GEF IW experience with IWRM upgraded for SIDS and highlighted at GEF IWC6, WWF5 Istanbul 2009, and WWF6 TBD 2012, including SIDS experience to support GEF in future IW Focal Area Strategy development and Strategic Programming (P) 1.5 Women form at least 2 of the 5 twinning exchange programme members by month 42 of the project (P)	Recruitment feedback via National APEX bodies and IWRM Focal Points through meeting reports and minutes, including Awareness Program Scoping and Implementation Reports Twinning and secondment reports Workshop reports and publications, IW LEARN outputs Database in place and linked to other resources - available via WWW and other media Pacific Partnership meeting outputs and reports, including Partnership Newsletter	Water champions are present in countries and willing to take on the role National participation in the twinning approach and lessons learned and fed-back Public concerned about water and catchment management issues Countries willing to share information with each other, regionally and inter-regionally	From a baseline of few opportunities, regionally and nationally, for relevant training in project management, IWRM practice and policy development, and few opportunities to capture and share experiences and lessons, the Pacific IWRM project has delivered on its Component 4 outputs of upgrading national and regional skills, having in place active twinning programmes, and knowledge management networking and information sharing. The visible outcome of this capacity building is in the strengthened skills, competencies and abilities of demonstration project managers and project committees in particular. However, it is less clear whether these capacities, which are most strongly held in individuals, are sustainable capacities. As for engagement, we cannot emphasise strongly enough that we share the view of many Project participants that this was a hallmark of the IWRM Project, at regional, national and community levels. The one concern is the decline in engagements rates at the very phases of the project where results were highly communicable, from the perspective of seeking the adoption of project results as well as avoiding the loss of momentum as IWRM seeks to achieve replication and upscaling in R2R.

Project Strategy	Objectively verifiable indicators					Terminal Evaluation Assessment Summary
Component 4 Objective	Sustainable IWRM and WUE capacity development, and global SIDS learning and knowledge exchange approaches in place					
Outputs	Indicator	Baseline	Target	Source of Verification	Risks and assumptions	
	appropriate media for PICs (linked to Indicator Framework, Pacific RAP and Caribbean and African SIDS approaches) (P)					

Annex 9: Attainment of demonstration project objectives (components and performance indicators)

This table provides the evaluator's performance assessment of country demonstration projects against their respective components and activity-based indicators taken from the country logframes. We also take into consideration progress against the country results-based indicators and targets.

However, in the absence of documented progress against either the country logframe indicator set or the project results indicator set, because final reporting has not been completed, we make these assessments against what progress was documented at mid-term (2012) and what we heard during interviews.

We note that this assessment does not rate countries against each other, rather against the progress towards the agreed country-specific activities. We work from the assumption that the activities and indicators were considered achievable and set with the country's baseline and social, environmental, political and economic situation in mind. Higher ratings, reflecting substantive results or benefits, for some countries are made possible because of a large national budget and other significant overlapping projects.

Rating scale: Highly satisfactory (HS); Satisfactory (S); Moderately satisfactory (MS); Moderately unsatisfactory (MU); Unsatisfactory (U); Highly unsatisfactory (HU).

Cook Islands ¹⁷	
Integrated freshwater and coastal management on Rarotonga	
Overall rating	S–MS
Good progress with policy, an endorsed National Sanitation Policy and draft National IWRM policy and Water Supply policy. Significant catalytic results, particularly scaling up of household septic system upgrades with new donor funds. Groundwater assessment work continues until June 2014, and the monitoring results of the septic system trials are available yet. There are obvious benefits to integrating this project with wider water sector projects, as has happened, but it does make assessing the performance of the IWRM demonstration project difficult. In the absence of a logframe to see the full scale of the project plan, we are unable to rate this project S or higher.	

Fiji	
Environmental and socio-economic protection in Fiji: Integrated flood risk management in the Nadi River Basin	
Component	Indicator
1. Development of integrated flood management plan and mainstreaming of integrated flood management into policy, planning and legislation framework	An integrated flood risk management plan within an enabling policy and financial framework
2. Sound governance to provide confidence in the transparency, accountability and credibility of decisions	Establishment of a Nadi Basin Catchment Committee with public accountability
3. A stakeholder engagement strategy that raises awareness, increases participation, particularly of marginalized sectors, and build stakeholder capacity to support a sustainable flood management plan	Stakeholder Engagement Plan with Communication Strategy in place
4. Flood risk management tools developed to	Development of priority tools

¹⁷ No logframe was available at the time of preparing this report.

support the Flood Management Plan	
5. Complete targeted scientific and technical studies to inform flood management planning	A high level of flood risk awareness developed to a level that enables stakeholder and community participation in the development of integrated flood risk management plan
6. To successfully commence implementation of the Nadi River Flood Management Plan	A high level of flood risk preparedness, reflected through an integrated flood risk management plan, developed through community engagement, incorporating a flood warning system based on sound modelling of reliable data, an enabling policy and financial framework, a catchment wide planning strategy and increased technical and institutional capacity
Overall rating	HS
An excellent example of community-to-cabinet cooperation, particularly in development of the Nadi River Flood Management Plan involving agreement on roles and responses via an MOU signed by key government agencies. The improved flood disaster warning system has been tested during two recent floods, and in combination with the 28 community disaster management committees following their local disaster management plans, resulted in no loss of life. The project is complemented on its extensive community engagement, in relation to flood risk management, but also in catchment conservation.	

FSM¹⁸	
Ridge to reef: Protecting water quality from sources to sea in the FSM	
Component	Indicator
1. Watershed protection and management	No quantifiable indicator at this level in the logframe
2. Protecting fresh and marine water quality and quantity	No quantifiable indicator at this level in the logframe
3. Improving water quality and quantity monitoring and planning	No quantifiable indicator at this level in the logframe
4. Policy and planning for IWRM and water use efficiency in the Federated States of Micronesia	No quantifiable indicator at this level in the logframe
Overall rating	MS–MU
The Mid-term report indicates reasonable progress against component 2 in establishing a Watershed Forest Reserve for Nett municipality main water supply, and good progress against component 4 a Joint Resolution of President and State Governor's endorsing a Framework National Water and Sanitation Policy for FSM, and establishing a National Water Task Force. In the absence of a final report to see the full scale of the project delivery, we are unable to rate this project MS or higher.	

Nauru	
Enhancing water security for Nauru through better water management and reduced contamination of groundwater	
Component	Indicator
1. Establish an adequately resourced governance and management framework to support sustainable water management	IWRM Committee incorporating a range of government, private sector and community stakeholders overseeing implementation of IWRM plan. National water resource management policy and legislation based on IWRM framework implemented and adequately funded
2. Sound governance to provide confidence in the transparency accountability and credibility of decisions	IWRM Steering Committee established with clear roles & responsibilities, transparency and accountability

¹⁸ The 2012 Project Result Note and incomplete Mid-term report were the only information sources available to the evaluators at the time of preparing this report.

3. A stakeholder engagement strategy that raises awareness, increases participation, particularly of marginalized sectors, and builds stakeholder capacity to support a sustainable IWRM plan	Stakeholder engagement strategy in place raising awareness and capacity building supporting a sustainable IWRM plan
4. Complete targeted scientific and technical studies to inform water and wastewater management	A water & sanitation awareness developed to a level that enables stakeholder and community participation in the development of integrated water & wastewater management plan
5. Implement the IWRM plan	IWRM plan integrated into national policies and legislations
Overall rating	S
The policy, governance and engagement components have been successful, with the establishment of the Water Unit within the Ministry of Commerce, Industry and Environment, the water APEX body and project steering committee and a water technical committee being established, the National IWRM Water and Sanitation Policy endorsed by Cabinet, and the implementation plan submitted. The project has successfully trialled alternate sanitation systems and leveraged additional donor support for replication.	

Niue	
Using integrated land use, water supply and wastewater management as a protection model for Alofi town groundwater supply and nearshore reef	
Component	Indicator
1. Ongoing sound, integrated, transparent governance of Niue's water resource	Establishment of an ongoing National Water Council (NWC) with public accountability in place
2. Water legislation, policy and planning measures	Water Resources Management Act enacted
3. Improved management of hazardous and waste products to reduce risks of ground water contamination	25% reduction in nitrogen due to sewage pollution
4. Improved management of non-household chemicals, effluents and fuels	Reduction in drinking water resources pollution discharge to drinking water sources at a national scale (30% reduction)
5. Improved water supply management to reduce peak demands and risk of saline up-coming	Reduction in water leakage from Alofi supplies (40% reduction)
6. Improved water resources management measures	Increase in Alofi population with access to safe water supply (90% with access)
7. Communication, education and awareness program	No quantifiable indicator at this level in the logframe
Overall rating	S
As noted by the Chair of the National Water Steering Committee, <i>"The enactment of the Water Act 2012 was the paramount achievement of the IWRM demonstration project"</i> . This legislation and its administration brings together, for the first time, three government agencies in true integration, and so important for a country as small as Niue. The success of stakeholder engagement was illustrated by the smooth passing of the Water Act without objections, attributed to the successful one-day workshop that enabled villagers and government authorities to connect. The project has achieved practical improvements too, for example the development and local implementation of Village Management Plans, and in waste oil disposal and increased water storage. Although septic tank rehabilitation was not carried out for cost reasons, the groundwork has been laid for revising the National Building Code to include appropriate septic tank design and construction, inspection requirements and a national guideline for wastewater effluent.	

Palau	
Ngerikill watershed restoration for the improvement of water quality	
Component	Indicator
1. Improvement of surface water quality in the Ngerikill Watershed	No quantifiable indicator at this level in the logframe
2. Drainage mitigation	No quantifiable indicator at this level in the logframe
3. Improvement of biodiversity bioindicators	No quantifiable indicator at this level in the logframe
4. Policy/awareness	No quantifiable indicator at this level in the logframe
5. Documentation (replication strategy)	No quantifiable indicator at this level in the logframe
6. Establish long-term sustainable governance body	No quantifiable indicator at this level in the logframe
7. National policy and legal reforms for IWRM	No quantifiable indicator at this level in the logframe
Overall rating	S
<p>Policy work has gone as far as it could in the time, means and mandate of the project. Although not yet endorsed by Cabinet, the National Water Policy has been endorsed by the President. The project has been very successful at the watershed level, with Palau's first watershed management plan for the Ngerikill in Airai State being completed and its implementation support by national budget. A novel, and seemingly successful avian bioindicator approach for monitoring change in environmental quality as a result of managing impacts to the Ngerikill watershed has been developed. The project is complemented on its extensive stakeholder engagement, in relation to managing watershed impacts, and also integration with related national strategies such as sustainable land management, energy and conservation.</p>	

RMI	
Integrated water management and development plan for Laura groundwater lens, Majuro Atoll	
Component	Indicator
1. Strengthened coordination for integrated land and water management at Laura, Majuro Atoll	No quantifiable indicator at this level in the logframe
2. Identification of key threats and management issues for the Laura water lens	No quantifiable indicator at this level in the logframe
3. Development of a Laura Integrated Water and Land Resources Management Plan	No quantifiable indicator at this level in the logframe
4. Targeted stress reduction demonstration for the Laura water lens	No quantifiable indicator at this level in the logframe
5. Enhancing awareness and understanding of the Laura water lens	No quantifiable indicator at this level in the logframe
6. National policy and legal reforms for IWRM	No quantifiable indicator at this level in the logframe
Overall rating	S
<p>This project had its strength in the on-the-ground activities at the Laura Lens demonstration site. The Laura Lens project steering committee was comprised a wide range of community representation and influential people, both locally and at the national level. It was in this demonstration project that the evaluators really got a sense of the importance of local project presence and local champions. The demonstration stress reduction technologies went well beyond expectations, originally planning for one dry litter pig pen, but having established 21 by the end of the project. 40 per cent of overloaded septic tanks in Laura have been remediated. The impact this is having on the groundwater quality is planned for future projects. Microloans became available for dry litter pig pens and compost toilets. A National Task Force has been established, and a National Water and Sanitation Bill has been drafted.</p>	

Samoa	
Rehabilitation and sustainable management of Apia catchment	
Component	Indicator
1. Policy and planning	Policy, institutional, and legislative/regulatory requirements in place, planning and management tools developed
2. Rehabilitation and conservation of the degraded areas	Conservation and rehabilitation measures/plans implemented in priority areas of the Apia catchment
3. Awareness and capacity building	No quantifiable indicator at this level
Overall rating	HS
<p>Samoa has been able to reach an HS rating because it has contributed to, and benefited from the extensive national attention to water, through the Samoa Water Sector Program and the 2012-2016 Water for Life Framework for Action and its governance structure. We heard the government judge success for the entire water sector rather than a specific project like the IWRM demonstration project, and this was seen as a good thing by the IWRM project. Nonetheless, the demonstration project has made significant achievements possible and significant achievements in its own right. One of the most significant would have to be the government committing to purchasing 1,500 ha of upland watershed (valued at ~140m US dollars) and designating it as a watershed conservation zone. The project has been catalytic in developing nine (to date) watershed management plans, which involved extensive consultation with affected communities.</p>	

Solomon Islands	
Managing Honiara City water supply and reducing pollution through IWRM approaches	
Component	Indicator
1. Development of integrated Kovi/Kongulai catchment management plan and inclusion of area based management into national policy, planning and legislation framework	An integrated Kovi/Kongulai catchment management plan with enabling policy and financial framework
2. Data collected & map produced with comprehensive understanding of size, location of catchments and significance of various land based activities impacting on quality and quantity of Honiara's water	No quantifiable indicator at this level in the logframe
3. Improved institutional and community capacity in IWRM at national, provincial and catchment level	No quantifiable indicator at this level in the logframe
4. Water safety plan produced and implemented	No quantifiable indicator at this level in the logframe
5. Water demand management	No quantifiable indicator at this level in the logframe
Overall rating	S
<p>The demonstration project focused on improving the quality of source water to the Honiara water supply (Kovi/Kongulai catchment) and improving the quantity of water available in the distribution system by identifying and repairing system losses. Significant improvements have been made in both aspects. The Kovi and Kongulai communities have been actively involved in catchment monitoring and management activities. A leak detection team has been established within the SIWA, and has identified priority demand management areas that are undergoing rehabilitation. With the support of JICA, the leak detection and repair programme is expanding to more areas within Honiara. And the results are improved water quality and significantly more water-hours at the tap. For the policy and governance components, a national Inter-sectoral Water Coordinating Committee was established and a National Water Resources and Sanitation Policy has been drafted.</p>	

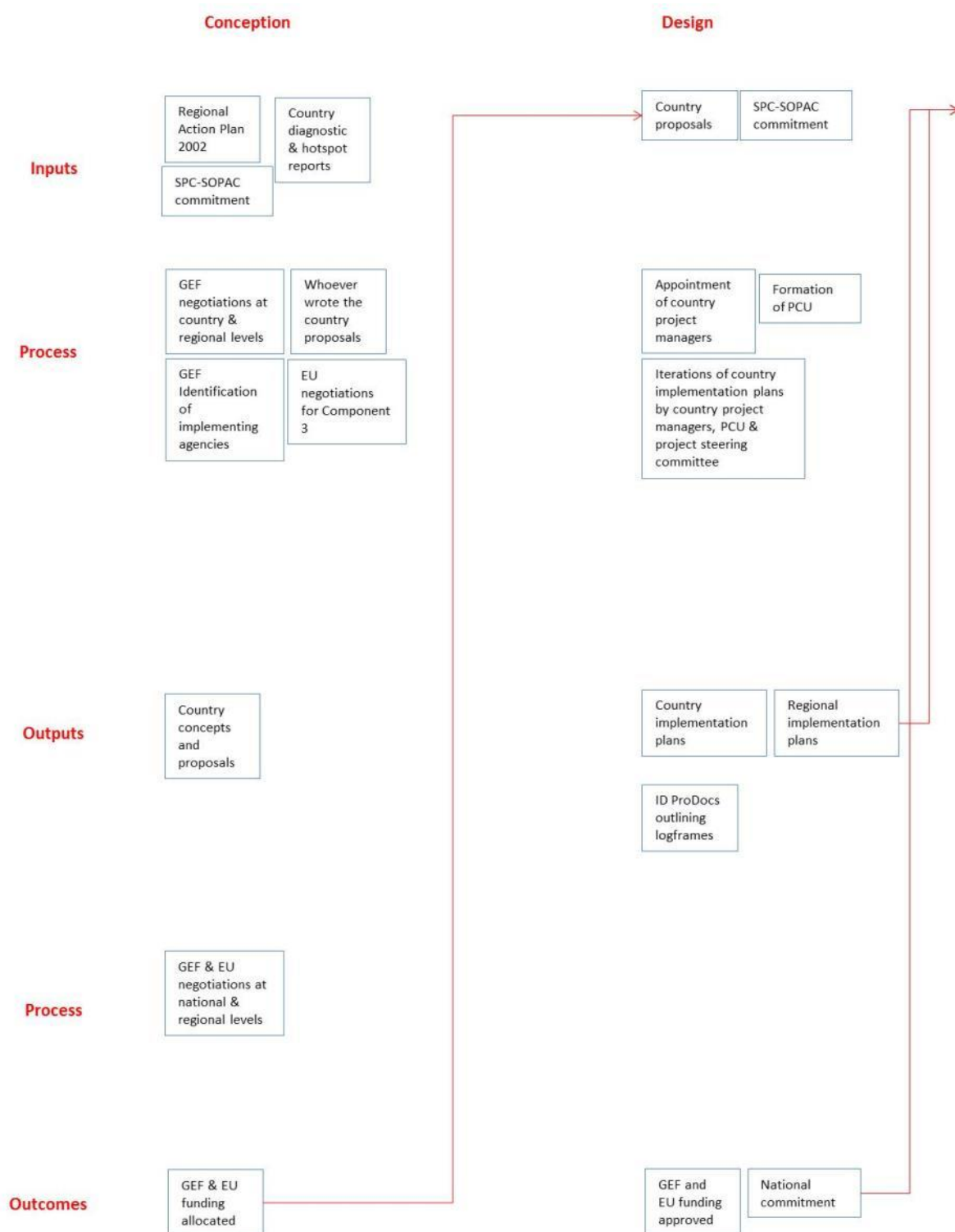
Tonga	
Improvement and sustainable management of Neiafu aquifer groundwater resources in Vava'u Islands	
Component	Indicator
1. Mitigate threats from contaminants	25% reduction in nutrients in sewage pollution across Vava'u. 30% increase in population with access to safe water supply. 90% increase in Neiafu residents with access to improved sanitation. 30% increase in stakeholder engagement
2. Assess water resources and water use efficiency	National staff across institutions with IWRM knowledge and experience. Better understanding of groundwater through testing and modelling
3. Governance and project management	Establishment of the technical working group for management
4. Develop Water Resources Management Plan for Neiafu, including incentives	Develop IWRM Plan for Neiafu by end 2012
5. Develop and implement National Water Resources Management Policy incorporating WUE	National IWRM Strategy in place by mid-2012. National legislation in place by mid-2012. Discrete budget line for IWRM in place by mid-2013. 20% increase in national budget allocated to IWRM and WUE. Best approaches to IWRM and WUE mainstreamed into national and regional planning frameworks by mid-2012. National indicator framework embedded in formal national reporting. Country staff trained in monitoring and PM&E. Increased sectoral engagement in formal multilateral communication on water issues. National adoption of PM&E approaches implemented by July 2012. National IWRM communication plan framework implemented by July 2012. Multi-sectoral APEX body in place by July 2010
Overall rating	S
According to the presentation made to the Neiafu Aquifer Management Committee (during our evaluation visit, December 2013), all aspects of the project were completed except the National IWRM Strategy and Plan, which was awaiting APEX body and Cabinet endorsement. Numerous environmental studies were undertaken to identify threats of contamination of the groundwater, and community awareness and action of their contributions and responsibilities to protecting the groundwater was substantial. Actions to manage impacts to the environment included rehabilitating failing septic tanks, installing demonstration compost toilets and using the septic tank pump-out truck and disposal facility. Communities were trained in household water management practices, particularly safe rainwater harvesting. The project is complemented on its extensive stakeholder engagement, especially the representation of the Neiafu committee including government agencies, business people, community, and women and environment/conservation NGOs.	

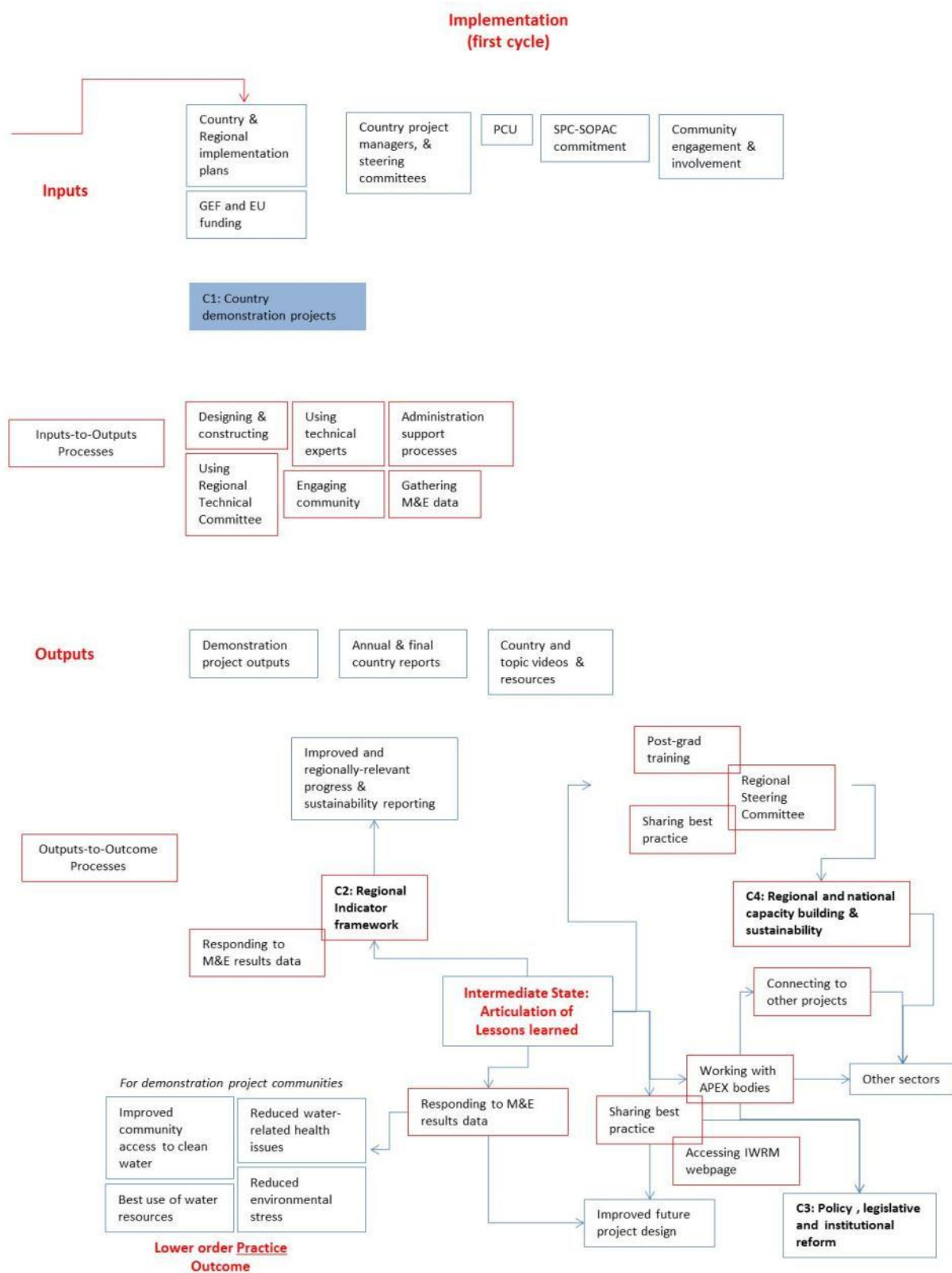
Tuvalu	
Integrated sustainable wastewater management (Ecosan) for Tuvalu	
Component	Indicator
1. Consider the suitability of national policy and legislation framework to enable better wastewater and water management	Necessary changes to national legislation and policies to mainstream integrated water and wastewater management
2. Sound governance to provide confidence in the transparency, accountability and credibility of decisions	Establishment of the Water and Sanitation Steering Committee, with public accountability and supporting government agency structures
3. Undertake the development of plans and strategies, as required, to enhance and direct water and wastewater management	Need identified

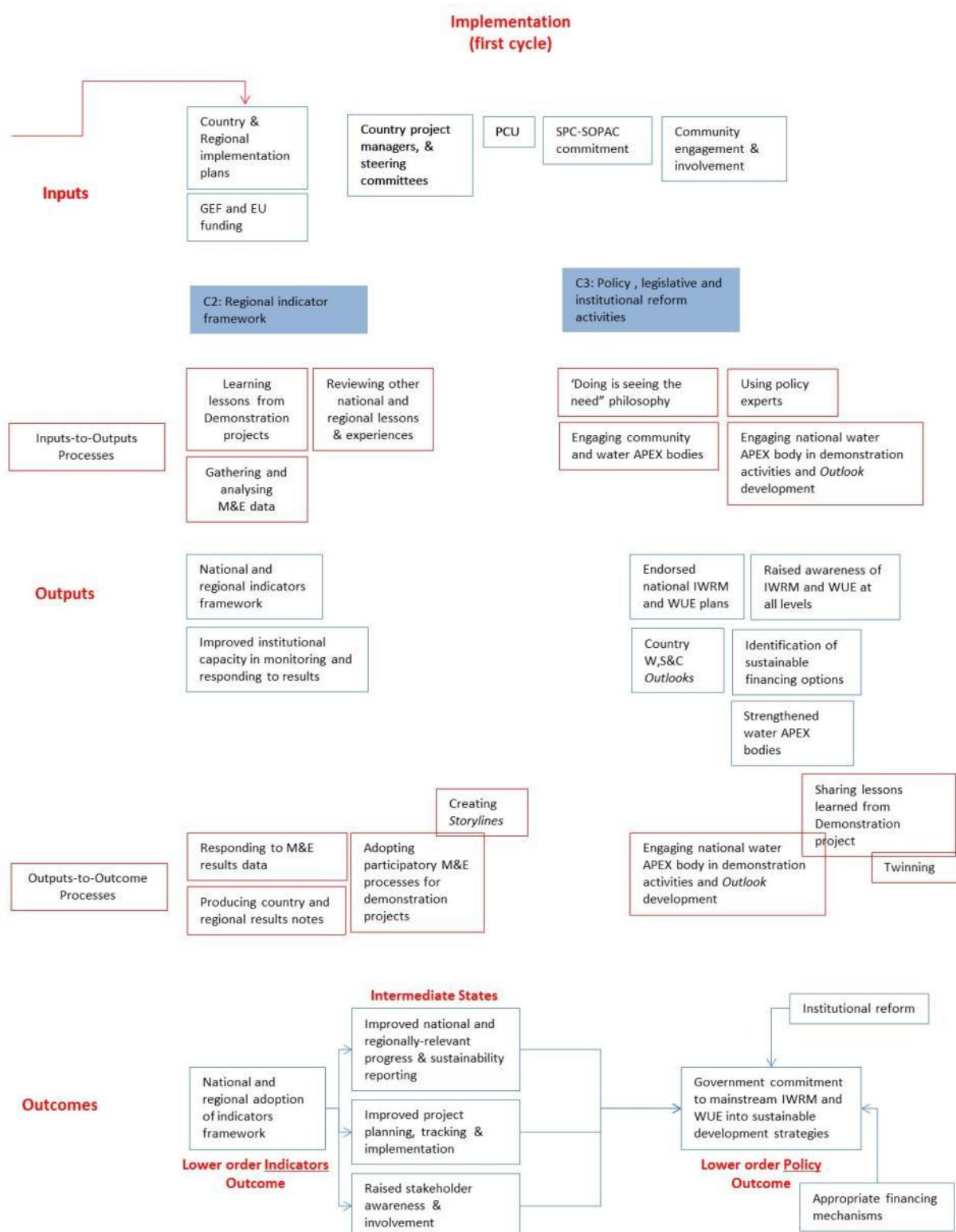
4. Review all scientific and other information/data and consider further information needs	Literature review (study reports)
5. Develop tools to aid the management of water and wastewater management	Tools developed and being used
6. Support all on-ground works to improve water and wastewater management	Support provided
Overall rating	HS
<p>Tuvalu earns its HS rating primarily because of the catalytic effect it has had on the acceptance and uptake of compost toilets, within Tuvalu and across the Pacific. At the start of the project in Tuvalu, the idea of composting toilets was received by communities as a backwards step. Through a considered engagement approach, and by taking the falevatie on a road trip to the people, and by carefully managing the process of selecting and regularly inspecting the demonstration sites, the project has turned around non-acceptance of composting toilets to the point where demand has well outstripped the ability to supply falevatie. From a target of installing 10 falevatie, the demonstration project has triggered installation of 40 falevatie to date, and with EU donor support, a further 45 are to be installed in Funafuti and another 90 on the outer islands. The catalytic effect of this success in Tuvalu extends to several other PICs, where they have been sparked into considering the introduction of composting toilets in their own demonstration projects, and sought the advice of Tuvalu. Governance and policy was not forgotten; a National APEX body was established, and in 2013 the National Water Policy was endorsed by Cabinet.</p>	

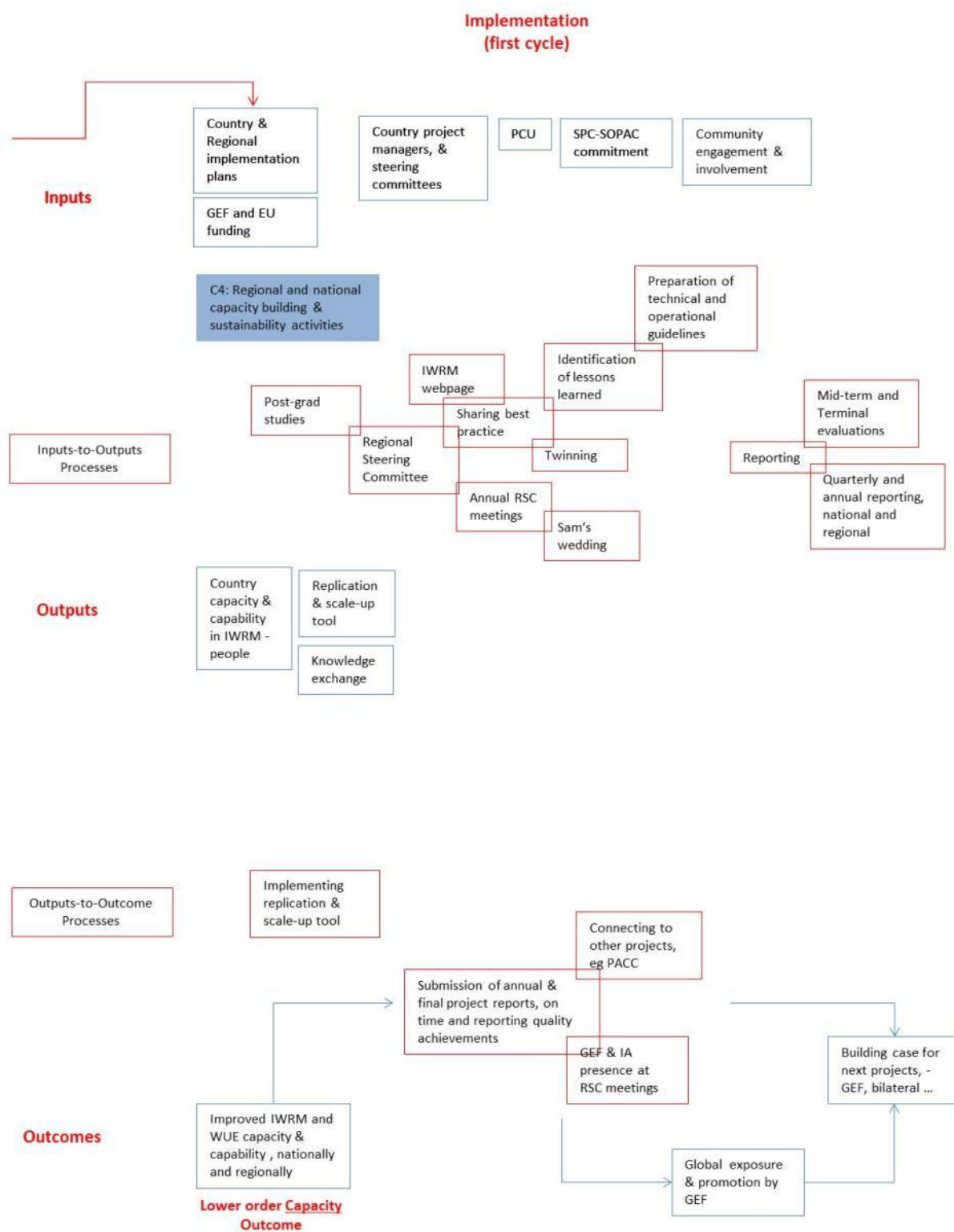
Vanuatu	
Sustainable management of Sarakata watershed	
Component	Indicator
1. Strengthened coordination for IWRM in the Sarakata Watershed	
2. Development of Sarakata Watershed IWRM Management Plan	
3. Delivery of safe and secure water to consumers	
4. Mitigate flooding and establishing flood monitoring systems	
Overall rating	S
<p>The demonstration project provided the first opportunity to put the existing National Water Strategy into practice at the local level, and to learn from this as it prepares a National IWRM Plan. The demonstration project focused on improving the quality of source water to the Luganville water supply (Sarakata catchment) and improving the quantity of water available in the distribution system by identifying and repairing system losses. Significant improvements have been made in both aspects. The Sarakata Watershed Management Plan has been endorsed by the project steering committee. Zoning initiatives in the Sarakata watershed have resulted in the designation of two water protection zones and reforestation/rehabilitation, and government compensation for a significant area of conservation land. Vanuatu made use of consultants from FSM to assist the Public Water Works team to build capacity in water demand management.</p>	

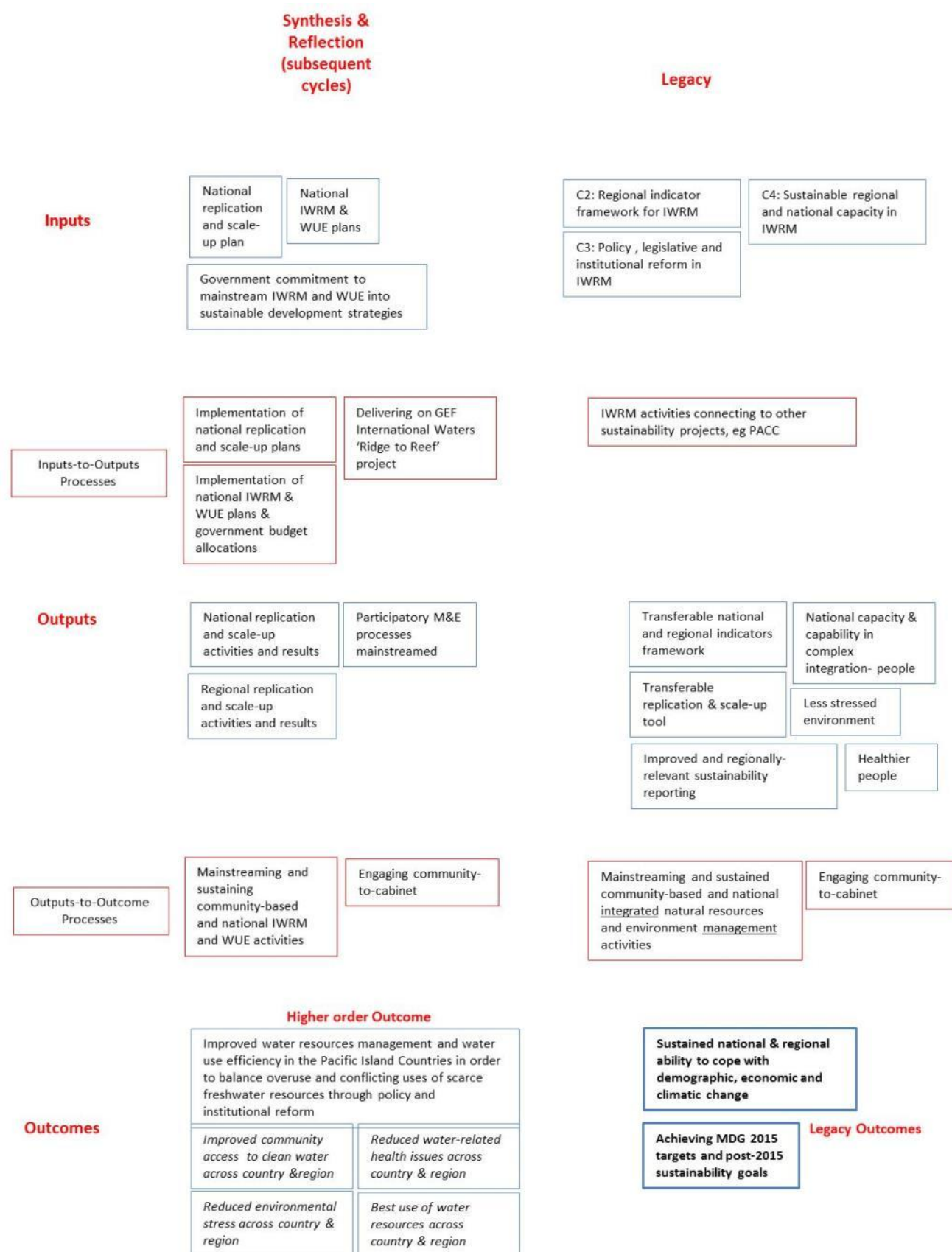
Annex 10: Comprehensive Theory of Change for the Pacific IWRM Project



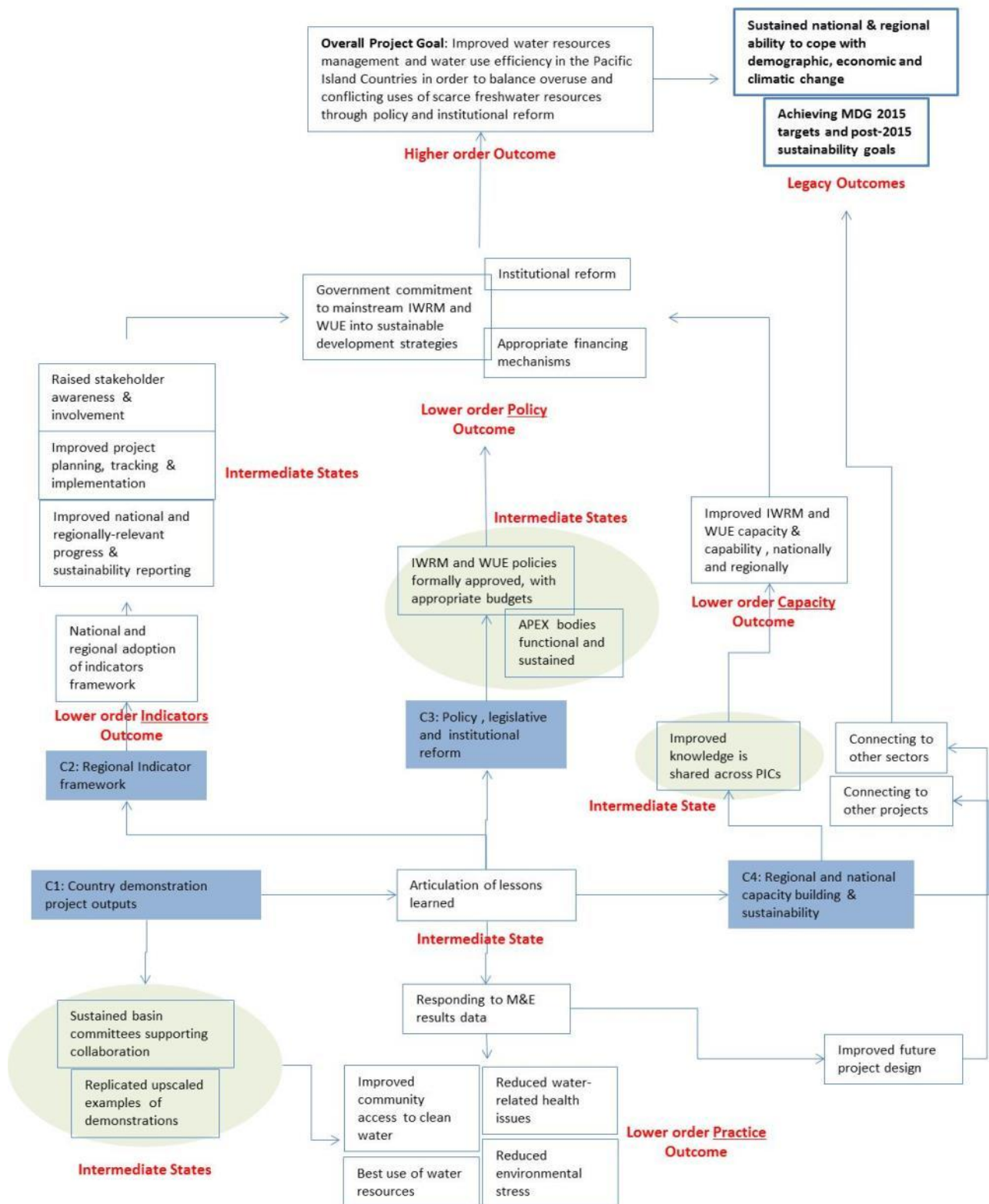








Outcomes-to-Impacts SUMMARY



Annex 11: Evaluator's assessment against project targets and performance indicators

Output No.	Brief description	Targets / Performance Indicators	Attainment and comments
Component 1: Practical demonstrations of IWRM and WUE focused on removing barriers to implementation at the community/local level and targeted towards national and regional level learning and application			
1.1	Improved access to safe drinking water supplies	• <i>Population with access to safe water supply</i>	<i>Increases identified through anecdotal, not quantifiable evidence</i>
		• <i>Revised legislation protecting water quality</i>	<i>Most countries have this incorporated into new or revised water policy and legislation</i>
1.2	Reduction in sewage release into coastal receiving waters	• <i>Population with access to sanitation</i>	<i>Increases identified through anecdotal, not quantifiable evidence</i>
		• <i>Nitrogen pollution load discharged to groundwater and/or coastal waters from sewage and/or manure</i>	<i>Decreases identified through anecdotal and back-calculation, not direct quantifiable evidence at scale. Local demonstration evidence exists</i>
		• <i>Reduction in drinking water source pollution</i>	<i>Decreases identified through anecdotal (change in practice), not quantifiable evidence</i>
		• <i>National effluent standards reached for wastewater treatment</i>	<i>No quantifiable evidence, an assumption exists that there are national effluent standards</i>
1.3	Reduction in catchment deforestation and sustainable forest and land management practices established	• <i>Increase in land protected and/or rehabilitated over catchment</i>	<i>Several countries have increased land under conservation</i>
		• <i>Sustainable forest & land management practices established and trialled with landowners</i>	<i>Some countries included this within their demonstration projects</i>
1.4	Water Safety Plans developed and adopted	• <i>Water Safety Plans (WSP) in place and enacted</i>	<i>WSPs have been developed in countries that included this as an activity, e.g. Solomon Islands and Vanuatu. Most other PICs already had WSPs</i>
1.5	Integrated Flood Risk Management approaches designed and developed	• <i>Flood Risk Management Plans implemented</i>	<i>This was a highlight of the Nadi Basin, Fiji, where it is being up-scales to other Basins</i>
1.6	Expansion in ecosanitation use and reduction in freshwater use for sanitation purposes	• <i>Reduction in use of freshwater for sanitation purposes due to eco-sanitation expansion</i>	<i>Several countries have trialled and installed compost toilets and improved septic systems</i>
1.7	Improved community level engagement with national institutions responsible for water management	• <i>Proportion of community engaged in water related issues</i>	<i>Engagement has been a feature of the IWRM project, with quantifiable evidence of high participation rates</i>
		• <i>Increase in community engagement with National Government on water issues</i>	<i>The project has helped establish national APEX bodies, Steering Committees, Watershed Local Advisory C'tees</i>
1.8	Increase in water storage facilities	• <i>Water supply storage</i>	<i>Rainwater harvesting methods have been advocated through project demonstration activities</i>

Output No.	Brief description	Targets / Performance Indicators	Attainment and comments
1.9	Technical and Allocative Water Use Efficiency approaches designed and adopted	• <i>Best IWRM and WUE approaches defined for each country</i>	<i>These have been in development in demonstration projects, but not always translated into BMP manuals</i>
		• <i>Best approaches to IWRM and WUE mainstreamed into national and regional planning frameworks</i>	<i>National Water Policies and Implementation Plans have embedded IWRM principles</i>
		• <i>Reduction in water leakage</i>	<i>Leakages have been identified in some countries and donor support secured to address hotspots</i>
1.10	Identification and adoption of appropriate financing approaches for sustainable water management	• <i>20% increase in national budget attributable to IWRM and WUE</i>	<i>Not attained</i>
		• <i>Catchment Councils established</i>	<i>Watershed management committees have been established in several countries</i>
Component 2: IWRM and environmental stress indicators developed and monitored through national and regional M&E systems to improve IWRM and WUE planning and programming and provide national and global environmental benefits			
2.1	Process, Stress Reduction, Environmental and Socio-Economic Status, WUE, Catalytic, Governance, Proxy, and X-Cutting Regional Indicator Framework (RIF) established and in use	• <i>Regional indicator framework endorsed by Regional Steering Committee and national indicator frameworks endorsed by relevant Cabinets or Ministers</i>	<i>Attained at RSC level and by some project steering committees , but not endorsed by governments. Elements of the framework have been incorporated into national policies -more works need to be progressed</i>
		• <i>National IWRM indicator framework embedded in formal national reporting</i>	<i>Not attained.</i>
2.2	Participatory M&E adopted within Demonstration Projects and mainstreamed into national best practice	• <i>Project design and PM&E plan endorsed by Project Steering Committee</i>	<i>Endorsed by project steering committees</i>
		• <i>National adoption of PM&E approaches implemented</i>	<i>The M&E framework was used as the basis for project reporting and assessment</i>
2.3	Improved institutional capacity for monitoring and support for action on findings across the region, including Pacific RAP progress for water investment planning (and International Waters SAP)	• <i>National staff trained in monitoring and PM&E</i>	<i>RCS members trained. Some training occurred at the national level</i>
Component 3: Supporting countries to develop national IWRM policies and water efficiency strategies, endorsed by both government and civil society stakeholders, and integrated into national sustainable development strategies			
3.1	National IWRM plans and WUE strategies developed and endorsed	• <i>National strategies in place (in the form of national policy, strategic framework, plan, etc) addressing explicitly both IWRM and water use efficiency</i>	<i>Most countries have national water policies in place, and most are accompanied by implementation plans</i>
		• <i>20% increase in national budget attributable to IWRM and WUE</i>	<i>Not attained</i>

Output No.	Brief description	Targets / Performance Indicators	Attainment and comments
3.2	Implementation of IWRM approaches agreed across national, community and regional organisations	• <i>Best IWRM and WUE approaches defined for each country</i>	<i>Priorities for sustainable water use are embedded into national policies and plans but not written as BMPs</i>
		• <i>Best approaches to IWRM and WUE mainstreamed into national and regional planning frameworks</i>	<i>See above</i>
3.3	Strengthened and sustainable APEX water bodies to catalyze implementation of national IWRM and WUE plans, including balanced gender membership	• <i>Multi-sectoral APEX bodies established</i>	<i>All countries have either a multi-sectoral APEX body specific to water or as part of a broader APEX body incorporating water issues</i>
3.4	Awareness raised across civil society, governments, education systems and the private sector	• <i>Sectors actively engaged in formal multilateral communication on water issues</i>	<i>Engagement and communication have been impressive features of the project</i>
		• <i>Proportion of community engaged in water related issues</i>	<i>Engagement has been a feature of the IWRM project, with quantifiable evidence of high participation rates</i>
		• <i>Regional Communication strategy in place by July 2011</i>	<i>Attained. This was an area affected by the major budget cut and so is even more impressive for its achievements</i>
		• <i>National Communication strategies implemented by July 2012</i>	<i>Attained. See above comment</i>
3.5	Sustainability strategies developed focusing on institutional and technical interventions required for Demonstration scaling-up as part of National IWRM Plan development and implementation	• <i>Technical and water use efficiency lessons from project applied in future national and project based activities by end of project</i>	<i>Lessons from the IWRM Project are being incorporated into the planning processes for the IWRM 2 component of the Ridge to Reef program</i>
		• <i>National lessons learned presentation packages with mainstreaming into national and regional approaches by end of project</i>	<i>Up-scaling strategies were developed but were largely donor dependent aspirations. Ridge to Reef will compensate for this</i>
		• <i>National staff across institutions with IWRM knowledge and experience</i>	<i>Knowledge capacity building has been a feature of the Project</i>
Component 4: Sustainable IWRM and WUE capacity development, and global SIDS learning and knowledge exchange approaches in place			
4.1	National and regional skills upgraded in project management and monitoring including water champions and APEX bodies for both men and women	• <i>National strategies in place (in the form of national policy, strategic framework, plan, etc) addressing explicitly both IWRM and water use efficiency</i>	<i>Most countries have national water policies in place, and most are accompanied by implementation plans</i>
		• <i>20% increase in national budget attributable to IWRM and WUE</i>	<i>Not attained</i>
4.2	Active twinning programmes in place between countries facing similar water and environmental degradation	• <i>Five twinning exchange programs in place between countries by month 42 of the project and at least 1 program with the Caribbean on IWRM planning underway for a similar program with African SIDS</i>	<i>Attained. A formal twinning program was established, although its budget was minimal. The highlight was twinning in relation to compost toilets; also featured in a presentation by Tuvalu to Caribbean countries</i>

Output No.	Brief description	Targets / Performance Indicators	Attainment and comments
	problems	<ul style="list-style-type: none"> Women form at least 2 of the 5 twinning exchange programme members by month 42 of the project 	Attained
4.3	Effective knowledge Management networking and information sharing inter and intra-regional	<ul style="list-style-type: none"> Cross-sectoral regional learning mechanisms (communities of practice) in place including x-project workshop attendance for the GEF funded projects: PACC, SLM, and the ADB CTI project reviewed annually 	The results based learning mechanisms were a feature of Regional Steering Committee meetings and exchanges. Involvement of GEF focal point at RSC 5 should have been encouraged for all RSC meetings. PACC featured as a collaborative project mainly at the country level
		<ul style="list-style-type: none"> GEF IW experience with IWRM upgraded for SIDS and highlighted at GEF IWC6, WWF5 Istanbul 2009, and WWF6 TBD 2012, including SIDS experience to support GEF in future IW Focal Area Strategy development and Strategic Programming 	The anecdotal success of the Pacific IWRM project has been acknowledged by GEF and its implementing agencies. It is a major impetus for the Pacific Ridge To Reef programme.

Annex 12: Responses to Evaluation questions in respect factors affecting performance

Tables 25–28 relate to Section 4F: Factors affecting project implementation.

Table 25: Response to preparedness and readiness issues raised in the ToR

Evaluation question	Response	Comment
Were project stakeholders adequately identified?	Yes	Every project undertook a stakeholder identification analysis. The PCU employed a community assessment and participation advisor from early 2009 to guide and assist in this task.
Were the project's objectives and components clear, practicable and feasible within its timeframe?	Mostly	The logframe was detailed and components were made clear. The overall timeframe was relatively ambitious, while some of the early milestones were unrealistic, particularly in respect to attaining endorsement of policy and indicator frameworks within countries.
Were the capacities of executing agencies properly considered when the project was designed?	Yes	This was dealt with in Prodoc supporting materials..
Was the project document clear and realistic to enable effective and efficient implementation?	Mostly	Interim milestones and targets were ambitious to the point of not being realistic.
Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to project implementation?	Yes	The project was well executed in this respect; noting however PNG withdrew altogether and Kiribati reduced its involvement to observer status.
Were counterpart resources (funding, staff, and facilities) and enabling legislation assured?	Yes	Resources within countries were stretched but ultimately delivered upon.
Were adequate project management arrangements in place?	Yes	These were strengthened further over time through capacity building in project management.
Were lessons from other relevant projects properly incorporated in the project design?	Yes	Hotspot and diagnostic reports brought previous experience to the design. The PCU staff also had considerable knowledge of past and present IWRM initiatives upon which to draw lessons.
What factors influenced the quality-at-entry of the project design, choice of partners, allocation of financial resources etc.?	Yes	The most critical factor was whether a country had the human capacity, including capacity to understand the integration component of IWRM. This lay down the platform for understanding what needed to be done, by whom and within what framework of relationships.
Were GEF environmental and social safeguards considered when the project was designed?	Not sure	No reference is made to environmental or social safeguards in the Prodoc. However, the IWRM project is consistent with the standards set out in GEF Policy PL/SD/03.

Table 26: Response to implementation and management issues raised in the ToR

Evaluation issue	Response
Extent to which the project implementation mechanisms outlined in the project document have been followed and were effective in delivering project outputs and outcomes. Were pertinent adaptations made to the approaches originally proposed?	<p>The IWRM Project Prodocs (UNEP and UNDP versions) provided a substantial roadmap for project managers to follow in terms of implementation. The mechanisms were largely followed, although with the funding cut experienced upon commencement, the RTAG proved to have a lesser role than first envisaged – see later discussion below. The role of the RSC was extremely valuable in translating many of the directions outlined in the Prodocs into specific plans and strategies, which helped give a heightened sense of country ownership in the overall project management arrangements.</p> <p>The main adaptations dealt with involved responding to the budget cut. This is discussed under section 4D.</p>
Effectiveness and efficiency of project management by SOPAC and the extent to which management was able to adapt to changes during the life of the project	<p>As noted in the MTR, SOPAC, as the EA, plays an important role both within the project execution and regionally as a centre of excellence on IWRM and WUE which responds to the wishes of the countries of the Pacific. Combined with expertise brought on board within the PCU, SOPAC can take credit for constructively supporting many of the project achievements.</p> <p>The MTR was concerned that SOPAC had established separate co-ordination units for the GEF and EU funded activities and that this was less than efficient or ideal. The TE evaluators however found that ultimately this did not impede progress or achievements made in Component 3.</p>
Role and performance of the units and committees established and the project execution arrangements at all levels	<p>The following response only deals with committees with primary responsibility for project execution. Notwithstanding this, country APEX, watershed management and local sub-regional advisory committees played an important role in rallying engagement and cross sectoral support for IWRM activities. Many of these bodies had functions that went beyond the IWRM project and so this helped place IWRM activities into a broader context of political, development, environmental, social and cultural considerations.</p> <p><u>Regional Steering Committee</u></p> <p>The RSC played a pivotal role in the success of the IWRM project. It gave flesh to many aspects of the Prodoc through a cooperative approach to the preparation of specific implementation strategies. The meetings themselves engendered a strong sense of country ownership through the rotation of Chairpersons. Meetings also played a strong role in rallying action around particular needs at particular times, such as coordinating a cooperative approach to World Water Day events, preparing mid-term and final term reports and the like. Finally, the RSC provided the forum for building the strong and enduring network of national coordinators which adds greatly to region-wide capacity.</p> <p><u>National Project steering committees</u></p> <p>Each country put in place a steering committee at the national level to oversee implementation of the country demonstration projects and to ensure local engagement and ownership of the Project. In some cases these committees were a function of an existing or new APEX body, in other cases they were specially established for the Project while yet other cases they were amalgamated with committees that overall several related projects. The evaluators spoke to representatives of all twelve committees and were impressed with the genuine approach to community to cabinet engagement these represented.</p>

Evaluation issue	Response
	<p><u>Regional Technical Advisory Group</u></p> <p>The RTAG was established to provide technical input into RSC decisions and relevant component implementation, particularly in respect to the Indicators Framework component. The RTAG only met five times (twice at one RSC meeting), and had its activities curtailed in response to the budget cut in 2009. The enduring legacy of the RTAG was its development of the Indicators Framework.</p>
Extent to which project management responded to direction and guidance provided by the Steering Committee and UNEP / UNDP supervision recommendations	<p>The minutes of the five RSC meetings encapsulate the constructive relationship between the PCU, the RSC and the UNEP/UNDP. These meetings provided the forum for raising issues and in many cases resolving them within a short timeframe. To some extent the PCU provided greater guidance to the RSC than the other way around, however when this issue was discussed during interviews it was not seen by RSC members as being a negative. Indeed the interviews painted a highly functional and rewarding relationship, based on mutual need and respect. Some RSC members remarked that they would have appreciated greater guidance from and an ongoing liaison with UNEP/UNDP representatives directly, but this was not ever raised as a major issue of concern. Issues between the PCU and UNEP/UNDP were generally dealt with in one way or another and not left open ended.</p>
Operational and political / institutional problems and constraints that influenced the effective implementation of the project, and how the project partners tried to overcome these problems. How did the relationship between the project management team (SOPAC) and the national teams develop?	<p>The political environmental will always provide a context for initiatives such as the IWRM Project. In only a few cases did it mean not fully meeting project objectives at the country level. An example of this is Palau, where a National Water Policy was endorsed by the Prime Minister but not by the overall government.</p> <p>The pre-existing relationship between SOPAC and participating PICs made the administrative aspects of project implementation easier to deal with from commencement. At interview, nearly all country project coordinators expressed a positive view of SOPAC and particularly the PCU. It was seen to be helpful at all stages of project implementation through to completion.</p>
Extent to which MTR recommendations were followed in a timely manner	<p>Annex X deals with the response to the MTR. Overall the issues were dealt with satisfactorily.</p>
Extent to which the project implementation met GEF environmental and social safeguards requirements	<p>No reference is made to the GEF safeguards in Prodoc or other project documentation, however the IWRM Project is largely consistent with GEF policy PL/SD/03 intentionally or otherwise.</p>

Table 27: Response to stakeholder participation and public awareness issues raised in the ToR

Evaluation issue	Response
Information dissemination between stakeholders	<p>Communication and engagement strategies were vitally important elements of all project activities, as was the mainstreaming of gender and other social equity considerations within the context of the diverse cultures of the PICs. A key strategy for engagement, taking cultural considerations into account, was emphasising personal relationships rather than non-personal electronic and written forms of information conveyance. This principle underpinned the establishment of community and inter-agency committees at several levels, from local oversight of small demonstration activities through to APEX body cooperation in policy development. While these bodies gave ownership to IWRM principles and project components (see next issues below), they also acted as important mechanisms for conveying information to, and between stakeholders.</p> <p>Extensive stakeholder identification and analysis exercises were undertaken by RSC members in the preparation of stakeholder engagement strategies. In many cases the strategies were taken back to local stakeholders for improvement and endorsement before implementation.</p> <p>A particularly strong form of conveying information to harder to reach public stakeholders in line with the principle of personal approaches was the extensive use of videos. With the assistance of O-TV, over twenty videos were shot in local languages and played regularly on the local TV stations of each participating PIC.</p> <p>Participation rates and details of engagement activities are outlined in Annex 8. Over 2010 through to the second quarter of 2013, 8,550 people had participated in IWRM project events. This does not take into account that any one individual may have participated at several events, however this is of less concern as participation in multiple events helps reinforce messages and hence helps move people towards taking action. The excellent monitoring of participation rates, including gender considerations, resulted in one of the better synthesis papers prepared for the IWRM Project (<i>Gender mainstreaming in the GEF Pacific IWRM Project</i> presented at RSC5). It showed that approximately 40 per cent of participants across activities were women.</p> <p>An important element of information dissemination within all countries was that the information was largely conveyed by citizens, whether local community members, technical specialists or politicians, of the country concerned.</p>
Consultation between stakeholders	<p>An important element of the IWRM Project consultation process was the establishment of committees at several levels of the project. This is discussed at length under many other sections of this report, including under Table 22 of this Annex.</p> <p>As with the philosophy of personal conveyance of information discussed above, the committee system helped build communities of consultative decision makers and communities of practice across the PICs.</p> <p>The multi-agency nature of many of the committees, particularly the APEX bodies, provided the opportunity to embed IWRM principles into areas of government responsibility beyond watershed management and sanitation. An excellent example of this is engagement with disaster management agencies not just in Fiji where this was the focus of the demonstration project, but in countries such as Tuvalu where a small population demands all hands on deck with issues such as drought and king tide flooding.</p>

Evaluation issue	Response
Active engagement of stakeholders in project decision making and activities	<p>Again, this issue has been written about at length in other sections of the TE. A particularly powerful form of this engagement, it should be emphasised, has been at the local community level in the oversight of demonstration projects. Community leaders have played a strong role in facilitating the selection of local hosts for activities and have rallied local participation in important events. On several Islands, such as RMI, Tonga and Tuvalu, local community members aspired to convey IWRM messages to outer islands and other communities not so fortunate as to have IWRM activities close at hand.</p> <p>Commitment like this comes from the confidence local people gain from a project's delivery of genuine stakeholder engagement. The level of commitment also corresponds to the level to which people feel they have a genuine say in decisions and not just in the conveyance of messages. This we heard several time in interviews, and on this point the IWRM Project's commitment to local engagement was considered its hallmark.</p>

Table 28: Response to country ownership and driven-ness issues raised in the ToR

Country	Response
Cook Islands	Ownership is good and local driven-ness is high. The Cook Islands has a National Water Committee, and has developed a National Sanitation Policy and draft IWRM and Water Supply policies. Strong commitment to what they wanted to do. The country has a water agenda to implement and the IWRM project was a good alignment to progress the agenda. There have been several changes in the lead agency liaison point, possibly a result of several rearrangements of government agency functions.
Fiji	Ownership is high at the regional level and low to moderate at the national level. Local driven-ness is high. The driver for Fiji involvement has by and large been flood management rather than IWRM. This is reflected in its focus on the Nadi Basin. Local participation is excellent but sceptical that the IWRM will be pursued outside of Nadi without another project like this IWRM.
FSM	Ownership and driven-ness are low. FSM proved to be problematic in gaining information about project progress. The country has experienced continual staff turnover and at one point an SPC person had to fill in for the IWRM contact.
Kiribati	Ownership and driven-ness are low. Kiribati is continuously swamped with issues –outbreaks in disease at the time of TE report preparation. With limited capacity to take on donor projects, the country tends to take on much larger ones than the IWRM project – it is honest about this.
Nauru	Ownership and driven-ness are high. There is strong country commitment to IWRM as evidenced by the establishment of a permanent Water Unit in the Ministry of Commerce, Industry and Environment. The country has endorsed a National IWRM Water and Sanitation Policy supported by a draft IWRM implementation plan.
Niue	Ownership and driven-ness are high. Niue has a very active champion for IWRM at a senior government level. Support is good at both policy and technical levels.
Palau	Ownership is moderate at national level and high at regional level. Driven-ness is high at both levels. Support by the President has not translated yet into support by Cabinet. The Arai State has exceptionally high commitment to IWRM and watershed management.
RMI	Ownership is moderate at the national level and high at the regional level. Driven-ness is high at both levels. There is strong ministerial support for IWRM principles, but this has yet to be translated to the whole-of-government. The Laura Community is an exemplary example of local ownership and driven-ness.
Samoa	Ownership and driven-ness are high. Like the Cook Islands, Samoa has a well-articulated water reform agenda and sees IWRM as a good pathway to implementing this agenda. IWRM has exceptional commitment at senior policy levels. Quote “ <i>Successes here is judged against the bigger water picture at home rather than focus on individual projects.</i> ”
Solomon Islands	Ownership and driven-ness are high at national and regional levels. IWRM has a good champion in its country coordinator who is well respected by multiple agencies. Relevant policies have been drafted and a watershed committee established.
Tonga	Ownership and driven-ness are high at national and regional levels. Like Samoa, IWRM has a champion at the senior policy level. IWRM plans have been drafted at the national and regional levels.

Country	Response
Tuvalu	Ownership is moderate and driven-ness is high. Like many other PICs, Tuvalu is donor dependent, and so when funds dried up early it was unable to step in to pay for certain services.
Vanuatu	Ownership is moderate and driven-ness is high. The demonstration project provided a way for the government to take the first step to put its water strategy into practice on a lesser island. R2R will see effort come back onto the mainland and locals are concerned IWRM efforts to date will be cut adrift.

Annex 13: IWRM Project response to its Mid-Term Review

Mid-Term Review Recommendation	Action taken (if any)
Recommendation 1: Extend the Pacific IWRM Project by 6 months to complete regional activities including the finalisation of IWRM plans and the dissemination of the national demonstration projects	An extension of the project was approved through to June 2014. Most on-ground activities of the Pacific IWRM Project were wound up o by 31 December 2013, with the Cook Islands being given an extension of six months for its groundwater studies. One justification for the MTR recommendation was to provide time for adequate synthesis of lessons to be undertaken that would provide the larger region wide picture of Project outputs and outcomes as well as provide a further basis for sharing lessons. While it is the view of the TE evaluators that these outputs and outcomes have been significant and that good exchanges took place at the RSC 5 meeting in November 2013, the overlap between finalising IWRM reports at both country and regional levels with planning for the R2R initiative has compromised further synthesis and knowledge sharing being achieved. This was acknowledged by PCU members at interview, who suggested that some of this will be undertaken in initial implementation phase of the next initiative.
Recommendation 2: Develop a sustainability plan for IWRM and WUE approaches in the Pacific region.	This recommendation focused on the IWRM policy and planning activities related to Component 3, which was formally completed in 2012 prior to all intended outputs being achieved. This matter was considered at RSC 3 and RSC 4, with agreement that the momentum commenced in Component 3 would be pushed along by country partners with SOPAC keeping a watching brief. A roadmap comprising elements of policy, awareness, consultations, institutions, information, coordination and M&E was provided. As this TE reports, the IWRM policy and planning progress over the final two years of the project was significant.
Recommendation 3: Develop a strategy to improve the utilisation of the technical resources of the RTAG	A formal strategy was not developed and no additional resources were provided to the RTAG to overcome its budget constraint limitations. The RTAG met at post MTR RSC meetings and focussed on advising on requirements for synthesis (i.e. stress reduction reports) and the final reports. It is questionable the value the RTAG provided, from a technical perspective, over and above the value of the technical input from the PCU other than demonstrating wider ownership.
Recommendation 4: Integrate and better link the demonstration projects into the regional website	This was achieved and proved helpful to the TE evaluators in accessing information on country activities. Unfortunately the source material to populate the website was limited and variable from country to country. For examples, the mid-term reports were included for most but not all countries.

Mid-Term Review Recommendation	Action taken (if any)
Recommendation 5: Continue to track pre-agreed commitments and collate and report new co-financing.	The TE found the tracking not to be transparent.
Recommendation 6: Improve the understanding by stakeholders of the indicator framework under development.	This issue was discussed at length at RSC 4. Some RSC members suggested that the issue was not so much about awareness and understanding as much as it was about having something to be aware of and understand; in other words, countries did not yet have their frameworks in place so there was nothing to be aware of or understand. The response was to hasten the development and use of indicators frameworks in participating PICs.

Annex 14: Co-financial arrangements

Table 29. Co-financing realised at 30 September 2013

Co-financing (Type/Source)	Government (mill US\$)		Other (mill US\$)		Total (mill US\$)		Total Disbursement (mill US\$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Grants	6.42	5.12	57.95	52.54	64.37	57.66	64.37	57.66
Loans/Concessiona l (compared to market rate			10.39	10.20	10.39	10.20	10.39	10.20
Credits								
Equity Investments								
In-kind Support	5.37	4.73	3.35	2.86	8.72	7.59	8.72	7.59
Other								
Totals	11.79	9.85	71.69	65.60	83.84	75.54	83.84	75.54

Annex 15: References

- Federated States of Micronesia's National Water Task Force, and Framework National Water and Sanitation Policy for the Federated States of Micronesia, Resolution No.01-2011 National and State Water Summit 2011, <http://www.slideshare.net/fsmrd/water-summit-resolution-and-policy-framework>
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WHO. 2008. Sanitation, hygiene and drinking-water in the Pacific Island countries: Converting commitment into action. World Health Organization Regional Office for the Western Pacific.
http://www.wpro.who.int/publications/PUB_9789290614012/en/

Annex 16: Evaluators biographical summaries

Richard Price

Richard hails from Australia and is Managing Director of Kiri-ganai Research, an Adjunct Professor of the Australian Centre for Sustainable Catchments (University of Southern Queensland), an Adjunct Associate Professor of The Fenner School of Environment and Society (Australian National University) and a Board Director of Abundant Water Inc.

A policy analyst and former national R&D program manager, Richard has conceived, created and managed some of the largest agricultural and environmental interdisciplinary programs in Australia. He has written research and environmental policy and legislation in Australia and China and has also assessed and evaluated industry, community and governmental programs and policy initiatives globally. Richard has worked at senior levels in the commercial, government and academic sectors in Australia, Asia, Europe and North Africa. In 2008 he was awarded the Australian Prime Minister's Banksia Award for his contribution to environmental research management, while in 2013 he was made a Fellow of the Australian Institute of Agricultural Science & Technology.

Jan Gregor

Jan hails from New Zealand and is a researcher and applied scientist with the Institute of Environmental Science and Research, a government owned New Zealand Crown Research Institute. Jan leads ESR's healthy environments commercial work in New Zealand and the Pacific.

Jan has a particular interest in supporting governments and communities in developing and implementing practical and relevant programmes for safe drinking-water and sanitation. She has worked extensively around the Pacific region since 1999 on country-specific and regional water and sanitation projects as a consultant to governments, donors and UN agencies. Between 1995 and 2009, Jan was a senior science advisor to the New Zealand Ministry of Health in developing and implementing its national drinking-water quality management programme, including leading nationwide public consultations on revisions to Drinking-water Standards, technical drafting of Standards and developing community-based tools for public health risk assessment and management planning for small water supplies.

Annex 17: UNEP Evaluation Report Quality Assessment

Evaluation Report Title:

Terminal Evaluation of the GEF: UNEP/UNDP Project Implementing Sustainable Water Resources and Wastewater Management in Pacific Island Countries

Final Report

All UNEP evaluation reports are subject to a quality assessment by the Evaluation Office. The quality assessment is used as a tool for providing structured feedback to the evaluation consultants. The quality of both the draft and final evaluation report is assessed and rated against the following criteria:

Substantive report quality criteria	UNEP EO Comments	Draft Report Rating	Final Report Rating
A. Strategic relevance: Does the report present a well-reasoned, complete and evidence-based assessment of strategic relevance of the intervention?	Draft report: Relevance has been adequately addressed Final report: Relevance has been adequately addressed	5	5
B. Achievement of outputs: Does the report present a well-reasoned, complete and evidence-based assessment of outputs delivered by the intervention (including their quality)?	Draft report: Assessment is detailed and evidence-based Final report: -	6	6
C. Presentation Theory of Change: Is the Theory of Change of the intervention clearly presented? Are causal pathways logical and complete (including drivers, assumptions and key actors)?	Draft report: ToC is clear and very well presented Final report: -	6	6
D. Effectiveness - Attainment of project objectives and results: Does the report present a well-reasoned, complete and evidence-based assessment of the achievement of the relevant outcomes and project objectives?	Draft report: Assessment is detailed and evidence-based Final report: -	6	6
E. Sustainability and replication: Does the report present a well-reasoned and evidence-based assessment of sustainability of outcomes and replication / catalytic effects?	Draft report: Revision required Final report: Assessment is detailed and evidence-based	4	6
F. Efficiency: Does the report present a well-reasoned, complete and evidence-based assessment of efficiency?	Draft report: Efficiency has been thoroughly discussed Final report: -	6	6
G. Factors affecting project performance: Does the report present a well-reasoned, complete and evidence-based assessment of all factors affecting project performance? In particular, does the report include the actual project costs (total and per activity) and actual co-financing used; and an assessment of the quality of the project M&E system and its use for project	Draft report: Some sections require strengthening as per the comments to the draft report. Final report: Assessment is detailed and evidence-based	5	6

management?			
H. Quality and utility of the recommendations: Are recommendations based on explicit evaluation findings? Do recommendations specify the actions necessary to correct existing conditions or improve operations ('who?' 'what?' 'where?' 'when?'). Can they be implemented?	Draft report: Recommendations require a revision as per the comments to the draft report. Final report: Recommendations are based on evaluation findings and they are practicable.	4	5
I. Quality and utility of the lessons: Are lessons based on explicit evaluation findings? Do they suggest prescriptive action? Do they specify in which contexts they are applicable?	Draft report: Some lessons should be clearer in terms of prescriptive action Final report: Lessons are based on findings and suggest prescriptive action.	4	5
Other report quality criteria			
J. Structure and clarity of the report: Does the report structure follow EO guidelines? Are all requested Annexes included?	Draft report: Very well structured and clear. Some annexes are pending Final report: The report is well structured and clear	5	6
K. Evaluation methods and information sources: Are evaluation methods and information sources clearly described? Are data collection methods, the triangulation / verification approach, details of stakeholder consultations provided? Are the limitations of evaluation methods and information sources described?	Draft report: Clearly stated Final report: -	6	6
L. Quality of writing: Was the report well written? (clear English language and grammar)	Draft report: The draft report is well written Final report: -	6	6
M. Report formatting: Does the report follow EO guidelines using headings, numbered paragraphs etc.	Draft report: The draft report is well formatted Final report: -	6	6
OVERALL REPORT QUALITY RATING		5.31	5.77

Rating system for quality of evaluation reports

A number rating 1-6 is used for each criterion: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, Highly Unsatisfactory = 1

The overall quality of the evaluation report is calculated by taking the mean score of all rated quality criteria.

2. Checklist of compliance with UNEP EO's normal operating procedures for the evaluation process

Compliance issue	Yes	No
1. Were the TORs shared with the implementing and executing agencies for comment prior to finalization?	x	
2. Was the budget for the evaluation agreed and approved by the UNEP Evaluation Office?	x	
3. Was the final selection of the preferred evaluator or evaluators made by the UNEP Evaluation Office?	x	
4. Were possible conflicts of interest of the selected evaluator(s) appraised? (Evaluators should not have participated substantively during project preparation and/or implementation and should have no conflict of interest with any proposed follow-up phases)	x	
5. Was an inception report delivered before commencing any travel in connection with the evaluation?	x	
6. Were formal written comments on the inception report prepared by the UNEP Evaluation Office and shared with the consultant?	x	
7. If a terminal evaluation; was it initiated within the period six months before or after project completion? If a mid-term evaluation; was the mid-term evaluation initiated within a six month period prior to the project/programmes's mid-point?	x	
8. Was the draft evaluation report sent directly to EO by the evaluator?	x	
9. Did UNEP Evaluation Office check the quality of the draft report, including EO peer review, prior to dissemination to stakeholders for comment?	x	
10. Did UNEP Evaluation Office disseminate (or authorize dissemination) of the draft report to key stakeholders to solicit formal comments?	x	
11. Did UNEP Evaluation Office complete an assessment of the quality of the draft evaluation report?	x	
12. Were formal written stakeholder comments sent directly to the UNEP Evaluation Office?	x	
13. Were all collated stakeholder comments and the UNEP Evaluation Office guidance to the evaluator shared with all evaluation stakeholders?	x	
14. Did UNEP Evaluation Office complete an assessment of the quality of the final report?	x	
15. Was an implementation plan for the evaluation recommendations prepared?	x	

Annex 18: UNDP Management Response to Evaluation Recommendations

UNDP Management Response Template

[IWRM TE] Date: 17/06/2014

Prepared by: Floyd Robinson

Position: Environment Associate

Unit/Bureau: UNDP Fiji MCO

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Position: Assistant Resident Representative – Unit/Bureau: UNDP Fiji MCO
Programs (ARR-P)

Winifereti Nainoca

Input into and update in ERC:

Position: Winifereti Nainoca, Jose Padilla

Unit/Bureau: UNDP Fiji MCO/ UNDP APRC

Evaluation Recommendation or Issue 1: The UNEP and UNDP should prepare an Experience Note based to the extent possible on the IWRM Project model. The Note should include advice on adequate budgeting and support to ensure steering committees are effective.				
Management Response: Despite the complexities of the IWRM project, it has managed to achieve substantive results both regionally and nationally. Therefore, it is important that such experiences are documented and made available for the benefit of future regional projects.				
Key Action(s)	Time Frame	Responsible Unit(s)	Tracking*	
			Comments	Status
1. UNDP to compile and submit experience note contributions to UNEP	By 31st August 2014 or as requested by UNEP	UNDP		
2.				
Evaluation Recommendation or Issue 2: To help ensure adequate resources are provided to underpin regional synthesis of multi-country activities and that these activities are tied to accountable milestones, the UNEP and UNDP should prepare an Experience Note for adoption by future projects of similar nature to the IWRM project.				

Management Response: Supportive of recommendation				
Key Action(s)	Time Frame	Responsible Unit(s)	Tracking	
			Comments	Status
UNDP to compile and submit experience note contributions to UNEP before finalization	By 30th 2014 or as requested by UNEP	UNDP		
Evaluation Recommendation or Issue 3: The UNEP and UNDP should prepare an Experience Note for adoption by future projects of similar nature to the IWRM project to ensure that future project designs include a stage at which exit strategies are prepared for all relevant components of an initiative. Exit strategies should be incorporated into the Prodoc for short-term projects or built in as a planned step/milestone in Prodocs for longer-term projects.				
Management Response: Exit strategy is not only important for the sustainability of project but would also provide specific targets for the national and regional project coordination units to start working towards from earlier stages of project. Having said that, the experience note should document the specific social, cultural, environmental, technical and operational factors at national level, sub regional level (Melanesia, Micronesia and Polynesia) and regional level. These factors should be taken into account in the development/formulation national and regional ridge to reef projects.				
Key Action(s)	Time Frame	Responsible Unit(s)	Tracking	
			Comments	Status
UNDP to prepare contributions for experience note and share with UNEP before document is finalized.	by 31 st August or as requested by UNEP	UNDP		
Evaluation Recommendation or Issue 4: The PCU of the new R2R initiative should write to National health bodies of participating PICs to discuss the opportunity for co-investing in relevant indicators monitoring and analysis (i.e. pathogens) at a relatively low cost by building on related monitoring activities to be established as part of R2R.				
Management Response: It is likely that there would be lapse of time between the completion/closure of the current IWRM project and approval of the regional R2R project. UNDP and UNEP are currently assisting countries formulate their national ridge to reef projects. It is suggested that during				

this formulation stage both agencies attempt to engage national health bodies in consultations and wherever possible, link water quality monitoring and evaluation. These could then be aligned to the regional R2R project.				
Key Action(s)	Time Frame	Responsible Unit(s)	Tracking	
UNDP to include discussions on water quality monitoring and evaluation during project preparatory grant phases for national ridge to reef projects (FSM, Fiji, Tonga, Nauru)	On going and to be completed by November 2014	UNDP	Comments	Status
Evaluation Recommendation or Issue 5: The UNDP should, through SOPAC, recommend to PICs participating in R2R to review the role of their APEX bodies to ensure their Terms of Reference include a functional role relating to the broader oversight and networking of water activity and not just R2R project oversight.				
Management Response: In support of recommendation. In addition, when supporting countries formulate their national ridge to reef projects, UNDP should build linkages at the national level i.e.				
Key Action(s)	Time Frame	Responsible Unit(s)	Tracking	
UNDP to support linkages at national level when assisting countries formulate their national R2R projects	Ongoing until the PPG stages of projects being supported by UNDP are completed	UNDP	Comments	Status
Evaluation Recommendation or Issue 6: The UNDP should ask the R2R PCU to provide a regional level assessment of the needs and options for a programme to foster retention of the IWRM and project management competencies needed in the Pacific, particularly in the context of implementing the R2R initiative.				
Management Response: Recommendation is critical to ensuring that knowledge, skills and capacity developed by national project coordination units (through the IWRM project life) is maintained in country and maximized during implementation of R2R. UNDP will make pursue recommendation.				

However, given the gap between completion of IWRM project and commencement of implementation of national R2R projects, it is likely that some national project coordination unit members have taken up other opportunities e.g. Tuvalu and Nauru national coordinators pursuing further studies in Australia and New Zealand while Fiji national coordinator has taken up a senior posting with Department of Agriculture. It is noted that this is one of the outputs of the regional project that supports the implementation of the Pacific R2R program.

Key Action(s)	Time Frame	Responsible Unit(s)	Tracking	
UNDP to occasionally remind the PPG and implementation team/s engaged by SOPAC	Continuing effort from design to implementation of the regional R2R project	SOPAC	Comments	Status