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Rarotonga Island, Cook Islands, 25<sup>th</sup> – 30<sup>th</sup> July 2011

# National Project Indicators and Recommendations for Monitoring and Evaluation of Project Progress

#### <u>Summary</u>

This document contains an overview of efforts to establish a Results-Based Management (RBM) Framework for the GEF Pacific IWRM Project. RBM frameworks and their key elements are defined and discussed in relation to the design, inception, implementation, and evaluation phases of the project. The challenges faced by the project in interpreting and applying the targets and indicators contained in the ProDoc logical framework matrix are highlighted, and the approach taken to develop simple understandable indicators and targets is outlined. The revised Project Monitoring and Evaluation Framework is presented, as is an example of this as applied to project initiatives in Samoa. The Regional Steering Committee is invited to review and endorse the PMEF and consider future needs of this aspect of the project.

# DEVELOPING A RESULTS-BASED MANAGEMENT FRAMEWORK FOR THE PACIFIC IWRM PROGRAMME

#### 1. BACKGROUND

The overall strategic results framework or project logframe for the Global Environment Facility supported project entitled "Implementing Sustainable Water Resources and Wastewater Management in Pacific Island Countries" contains a number of indicators (both baseline and target) including sources of verification for project monitoring. A summary of the project logframe is presented in Table 1 and the full project logframe is contained in Annex 1.

 Table 1
 Summary Project Logframe

<u> </u>		te to sustainable developme vironmental management	ent in the Pacific Island Regi	ion through improvements	1.
Impact [IM]	Overall Objective: To improve water resources 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 Integrated Water Resources Management (IWRM) and Water Use Efficiency (WUE) plans*				
		Project Co	omponents		
	C1: Demonstration, Capture and Transfer of Best Practices in IWRM and WUE	C2: IWRM and WUE Regional Indicator Framework	C3: Policy, Legislative and Institutional Reform for IWRM and WUE	C4: Regional and National Capacity Building and Sustainability Programme for IWRM and WUE, including Knowledge Exchange and Learning and Replication	
		Componen	t Objectives		
ssa	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	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.	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	Sustainable IWRM and WUE capacity development, and global SIDS learning and knowledge exchange approaches in place	
ven		Componen	t Outcomes		3.
Effectiveness	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	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	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	Improved institutional and community capacity in IWRM at national and regional levels	
JCy		Outpu	ts [OP]		
Efficiency		Activities (	Inputs [IP])		4.

NB. Efficiency and Effectiveness are evaluation criteria.

In addition to the regional project logframe outlined above, each country developed a draft logframe and identified some initial baselines and target indicators for their national IWRM demonstration projects during the project preparation phase (PDF-B). The scope of these demonstration projects and the project logframes were subsequently revised during project inception phase. All project logframes were finalised and endorsed nationally in advance of the project's Regional Steering Committee meeting convened in Palau from 19<sup>th</sup>-23<sup>rd</sup> July 2010.

#### 1.1 SO WHAT ARE RESULTS-BASED MANAGEMENT FRAMEWORKS?

As defined by OECD/DAC, a results based management framework is "a management strategy focusing on performance and achievement of **outputs**, **outcomes**, and **impacts**". The key terminology used by the OECD with respect to results based management is summarised in Information Box 1. The GEF and its implementing agencies now encourage projects to focus on efforts that contribute to the achievement of changes on the higher end of the results-chain hierarchy, i.e., activities focused on goals and achieving results.

# Information Box 1: Hierarchy Levels from OECD DAC Glossary of Key Terms in Evaluation and Results-Based Management

**Results:** Changes in a state or condition which derive from a cause-and- effect relationship. There are three types of such changes which can be set in motion by a development intervention – its output, outcome and impact.

Goal: The higher-order objective to which a development intervention is intended to contribute.

**Impact:** Positive and negative long-term effects on identifiable population groups produced by a development intervention. These effects can be economic, socio-cultural, institutional, environmental, technological or of other types.

**Outcome:** The intended or achieved short-term and medium-term effects of an intervention's outputs, usually requiring the collective effort of partners. Outcomes represent changes in development conditions which occur between the completion of outputs and the achievement of impact.

Outputs: The products and services which result from the completion of activities within a development intervention.

Critical tasks in a Results-Based Management Framework are monitoring and evaluation. Monitoring and evaluation are distinct tasks which should complement one another. Monitoring gives information on where a project is at any given time (over time) relative to respective targets and outcomes, and is largely a descriptive task. On the other hand, evaluation gives evidence of why targets and outcomes have or have not been achieved. The GEF's Monitoring and Evaluation Policy defines **monitoring** as:

"a continuous or periodic function that uses systematic collection of data, qualitative and quantitative, for the purpose of keeping activities on track. It is first and foremost a management instrument."

#### **Evaluation** on the other hand:

"aims at determining the relevance, impact, effectiveness, efficiency, and sustainability of the interventions and contributions of the involved partners"

Monitoring therefore tracks progress toward a set of benchmarks and measure progress towards outcomes, while evaluation validates results and makes overall judgements about what and to what extent intended and unintended results are achieved (e.g., global environmental benefits, cost effectiveness). Table 2 highlights the different but complementary roles that monitoring and evaluation play within a Results-Based Management Framework.

 Table 2
 Complementary Roles of Monitoring and Evaluation

Monitoring	Evaluation
Links activities and their resources to outputs and outcomes	<ul> <li>Analyses why intended results were or were not achieved</li> </ul>
<ul> <li>Translates objectives into performance indicators and sets targets</li> </ul>	<ul> <li>Assess specific causal contributions of activities to results</li> </ul>
Routinely collects data on indicators, compares	Examines the implementation process
actual results with targets	<ul> <li>Explores unintended results</li> </ul>
Reports progress to management and alerts them	<ul> <li>Provides lessons, highlights significant</li> </ul>
to problems	accomplishment or program potential, and offers
	recommendations for improvement

#### 1.2 GEF MINIMUM STANDARDS FOR RESULTS-BASED MANAGEMENT FRAMEWORKS

The GEF requires all projects to design and implement Results-Based Management (RBM) frameworks, and its monitoring and evaluation policy states that all GEF projects must "adopt monitoring systems, including relevant performance indicators that are SMART" (specific, measurable, achievable, realistic, timely) (see Information Box 2). Figure 1 provides a generalised Results-Based Management framework, and the links and feedback loops RBM sets in place between the three major phases of a simplified project cycle for a GEF project.

#### **INFORMATION BOX 1: SMART INDICATORS**

**Specific**. The system captures the essence of the desired result by clearly and directly relating to the achievement of an objective and only that objective.

<u>Measurable</u>. The monitoring system and indicators are unambiguously specified so that all parties agree on what they cover and there are practical ways to measure them.

<u>A</u>chievable and <u>A</u>ttributable. The system identifies what changes are anticipated as a result of the intervention and whether the results are realistic. Attribution requires that changes in the targeted developmental issue can be linked to the intervention.

**Relevant and Realistic**. The system establishes levels of performance that are likely to be achieved in a practical manner and that reflect the expectations of stakeholders.

<u>Time-Bound</u>, <u>Trackable</u>, and <u>Targeted</u>. The system allows progress to be tracked in a cost-effective manner at the desired frequency for a set period, with clear identification of the particular stakeholder group(s) to be affected by the project or program.

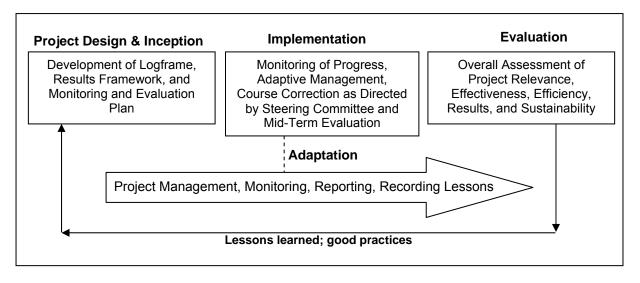


Figure 1 Management and learning aspects of a Results-Based Management Framework as applied to simplified GEF project cycle

Effort is made during the project design phase and inception period to ensure that the project objectives and intended results are clearly defined, specific, and measurable. This is aimed at providing a suitable platform to monitor and evaluate the project effectively. At the project design and inception stage, baseline data is also required for all of the key indicators for the anticipated results of the project.

The full project implementation stage requires application of project monitoring as a basis for decision-making. At this stage the baselines for the project are expected to be fully established and that data is routinely collected and analysed to fully support adaptive management by the Project Steering Committees and national stakeholders. Information Boxes 2 and 3 summarise the minimum requirements of the GEF with respect to the design and application of monitoring and evaluation. Information Box 4 summarises the criteria used to evaluate GEF project interventions.

#### **Information Box 2**

#### Minimum Requirement 1: Project Design of M&E

All projects will include a concrete and fully budgeted monitoring and evaluation plan by the time of work program entry for full-sized projects and CEO approval for medium-sized projects. This monitoring and evaluation plan will contain as a minimum:

- SMART indicators for project implementation, or, if no indicators are identified, an alternative plan for monitoring that will deliver reliable and valid information to management;
- SMART indicators for results (outcomes and, if applicable, impacts), and, where appropriate, indicators identified at the corporate level;
- baseline for the project, with a description of the problem to be addressed, with indicator data, or, if major baseline indicators are not identified, an alternative plan for addressing this within one year of implementation;
- identification of reviews and evaluations that will be undertaken, such as mid-term reviews or evaluations of activities; and
- organisational set-up and budgets for monitoring and evaluation.

#### **Information Box 3**

#### Minimum Requirement 2: Application of Project M&E

Project monitoring and supervision will include implementation of the M&E plan, comprising:

- SMART indicators for implementation are actively used, or if not, a reasonable explanation is provided;
- SMART indicators for results are actively used, or if not, a reasonable explanation is provided;
- the baseline for the project is fully established and data compiled to review progress, and evaluations are undertaken as planned; and
- the organisational set-up for M&E is operational and budgets are spent as planned.

#### 1.3 PRODOC REQUIREMENTS

The logframe of the UNEP and UNDP Project Documents provides a suite of "comprehensive baseline and target indicators and sources of verification for both outcome and output levels during project implementation". It was anticipated that these would "form the basis on which the project's Monitoring and Evaluation (M&E) system [would] be built".

It was envisaged during the project design phase that Demonstration project level indicators would provide an effective way of monitoring progress. It was planned to aggregate these at each of the Demonstration project group <sup>1</sup> levels to enable projects to learn from each other as part of the project *twinning* approach.

<sup>&</sup>lt;sup>1</sup> (i) Watershed Management; (ii) Wastewater & Sanitation Management; (iii) Water Resources Assessment & Protection; (iv) Water Use Efficiency & Safety.

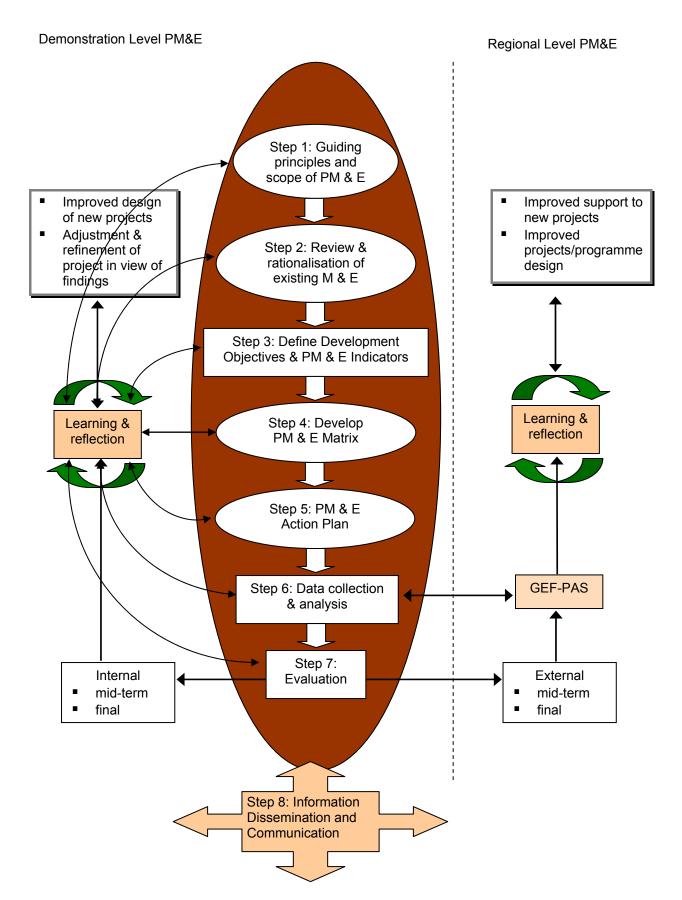


Figure 2 System for monitoring and evaluation proposed in UNDP/UNEP ProDocs

#### **Information Box 4**

#### **Current Criteria for Evaluating GEF Project Interventions**

**Relevance.** The extent to which the activity is suited to local and national development priorities and organizational policies, including changes over time.

**Effectiveness.** The extent to which an objective has been achieved or how likely it is to be achieved.

**Efficiency.** The extent to which results have been delivered with the least costly resources possible; also called cost effectiveness or efficacy.

**Results.** The positive and negative, and foreseen and unforeseen, changes to and effects produced by a development intervention. In GEF terms, results include direct project outputs, short- to medium-term outcomes, and longer term impact including global environmental benefits, replication effects, and other local effects.

**Sustainability.** The likely ability of an intervention to continue to deliver benefits for an extended period of time after completion. Projects need to be environmentally as well as financially and socially sustainable.

It was further envisaged that the demonstration project level indicators would provide an annual measure of progress at the project level, and would be scaled-up to provide a suite of cross-cutting indicators which relate to IWRM, NAP, NAPA, NSDSs, and other national planning processes as a way to monitor progress, using National IWRM APEX Bodies as the cross sectoral facilitators. It was planned that by raising the need and developing approaches for indicators, countries would be supported in monitoring approaches, including improving institutional capacity for monitoring and action on those monitoring results to address water and environmental challenges. The types of indicators to be used at the project level are summarised below.

**Process** indicators, which establish regional or national frameworks/conditions for improving environmental/water resources quality or quantity but do not themselves deliver stress reduction or improved environmental/water resources quality or quantity. The establishment of process indicators is essential to characterize the completion of institutional processes on the multi-country level or national level that will result in joint action on needed policy, legal, and institutional reforms and investments that aim to reduce environmental stress on transboundary water bodies. For the Pacific IWRM project management indicators will be included as Process indicators to ensure that  $360^{\circ}$  feedback is provided to the UN Agencies and GEF-PAS to provide information on why things happened the way they did to improve future project and programme planning. The role of the PCU is to report on both good and bad project implementation so that lessons can be learned.

**Stress reduction** indicators, which relate to specific on-the-ground measures implemented by the countries, and which characterize and quantify specific reductions in environmental/water resources stress on water bodies, e.g. reduction in pollutant releases, more sustainable fishing levels and/or practices, improved freshwater flows, reduced rate of introduction of invasive species, increased habitat restoration or protection, etc.

**Environmental Status** indicators, which demonstrate improvements in the environmental status as well as any associated socio-economic improvements. These indicators are usually 'static' snapshots of environmental and socioeconomic conditions at a given point in time so, like Stress Reduction, are usually reported against a baseline year and level to show change/improvement.

Based on feedback from Implementing Agencies and other GEF International Waters projects the Pacific IWRM project does not intend to use Environmental Status indicators. Environmental Status will be determined by baseline information for environmental stress indicators<sup>2</sup>. National Diagnostic Analysis reports already provide useful baseline information for indicator development. Other indicators the project will develop and use both at the National Demonstration level and then at the regional level within the IWRM and WUE Regional Indicator Framework include:

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<sup>&</sup>lt;sup>2</sup> Also based on feedback from the GEF Fourth Biennial International Waters Conference, 31 July – 3 August, 2007, Cape Town, Republic of South Africa. Close working will be fostered between the IWRM and IWCAM projects concerning indicators, and documents have already been shared including: Heileman, S., and Walling, L. 2008. *IWCAM Indicators Mechanism and Capacity Assessment*. Integrating Watershed & Coastal Areas Management in the Caribbean Small Island Developing States (IWCAM) Project. DRAFT document under development.

**Socio-economic** indicators – indicators which demonstrate improvements in the livelihood base of people involved in or affected by the project. This may include access to safe water supply and sanitation services, improvement in hygienic behaviour, etc.

**Water Use Efficiency** indicators will demonstrate improvement in the use of water resources. This could include reductions in leakage from water supply networks, improvement in equipment used for efficiency purposes (both water and energy consumption), improvement in water resource use (use of non-potable water for toilet flushing and not water resources for drinking), alternative technologies (composting toilets, membrane filters to improve water quality and therefore reduce health costs).

**Catalytic** indicators represent events and activities which occur which, when combined with others, including the project interventions, have a catalytic effect and can therefore improve the situation with no direct involvement from the project. This may include policy reform at the national level which has immediate benefits for the areas to be addressed by the project. However, catalytic indicators can also represent the combined effect of approaches in the project and/or with other projects which as a collective whole provide more benefit that the sum of their respective parts.

**Governance** indicators relate to the national IWRM policy planning process. Governance represents the range of political, social, economic and administrative systems that are in place to develop and manage water resources and the delivery of water services at different levels of society. Good governance is also about supporting civil society to help them make good decisions – and to provide them with the necessary skills and confidence to hold their Governments accountable.

Reform and strengthening of water sectors can often be considered as an 'entry point' for wider national reform as water is cross sectoral and multi-level, therefore providing an opportunity to assess how government manages a vital resource. Lessons learnt in the water sector can often be transposed into other sectors.

**X-cutting** indicators are those which affect more than one single sector. For example, reducing freshwater pollution into coastal receiving waters from a wastewater treatment plan may have benefits on nearby fishstocks and other marine organisms, including their habitat. Improving sanitation systems together with hand washing campaigns and other awareness raising activities could have benefits for the health sector, as it is hoped that safer sanitation systems and following hygienic practices reduces diarrhoeal cases, especially in children.

**Proxy** indicators may need to be used in some cases where information is not available or where a clear result of an intervention is not easy to determine. These will be developed during the first 6-12 months of the project. Proxy indicators are more likely to be used for cross sectoral indicators.

**Baseline Data -** represents information collected at the initial stage of the project. Baseline data provides a basis for measuring progress in achieving project objectives and outputs/outcomes. It allows for "before" and "after" project scenarios to measure the impact of the project interventions. Baseline data allows you to look at the "with" and "without" project scenarios. Baseline data will be collected by National Project staff, and the communities/wider stakeholders involved in the project area (both geographical and sectoral). By including a wider sample than the project alone national project management staff will be able to compare the effects of the project on the environment and beneficiaries with those who were not directly targeted by the project.

#### 2. DEVELOPMENT OF A PROJECT MONITORING AND EVALUATION FRAMEWORK

The Regional Technical Advisory Group of the project initially identified three key objectives in progressing the development of the Project Monitoring and Evaluation Framework, namely:

i. Country project staff should review their project logframes to ensure that project document indicators are reflected in their logframes - this process is ongoing, with many countries having already accommodated the project document indicators. However, the formalisation of the project M&E framework will trigger a final review and incorporation of indicators into logframes.

ii. The PCU is to work with country project teams to ensure that all indicators are reflected in the country demonstration project logframes - this step is ongoing, with the PCU working in partnership with country project teams. Again, a final review will be required following the formalisation of the PMEF.

# iii. The PCU is to work with country project teams to ensure that the Focal Points are engaging the APEX bodies to deliver national outcomes

# 2.1 Guidance from the 2<sup>nd</sup> Meeting of the Regional Technical Advisory Group

The guidance provided to the PCU in developing a draft PMEF included:

- Targets were found to be confusing and the need for further clarification was identified many targets incorporated multiple components, making assessment of progress difficult
- Timeframes needed to be reviewed to reflect the delays to the project initiation and changes to delivery modalities
- Monitoring approaches should include both output tracking, such as the nature, complexity
  and number of consultations and meetings conducted, through to outcome level monitoring of
  improved sanitation facilities
- Several targets had poor capacity for monitoring progress
- Significant further work that was required to establish national demonstration project baselines and to establish monitoring programs to track progress

The PCU were asked to consider the above comments and to provide a draft version of the PMEF for review by the 3<sup>rd</sup> RTAG Meeting.

#### 2.2 Key Principles Adopted in Development the PMEF

The key principles adopted in developing the PMEF were:

- Simple understandable indicators and targets
- Quantitative measures have been adopted where practical
- The use of studies, independent auditors and monitoring for the sole purpose of demonstrating achievement against numerical Project Document targets has been kept to a minimum
- Monitoring aligns as much as practical with project activities
- Overall progress is classified into broad categories (Complete; Mostly Complete; Partially Complete; Mostly Incomplete and Incomplete) to reflect the level of reporting required

### 2.3 Development of Simple Understandable Indicators and Targets

The need to provide simple understandable indicators and targets was considered critical for the PMEF to be a useful tool for tracking project progress and assessing project and national outcomes. The approach proposed is to break down the Project Document targets into single, simple indicators with associated baselines and targets. An example target is

"35%	reduction	in sewage	pollution o	ver eq.~40	0,000 ha	area l	eading to l	reduction i	n eutrophic	ation for
4 coas	stal receiv	ing waters	sites". At th	he country	level for	Nauru	i, this targe	et can be b	roken dowi	n into:

An associated area (which generally will remain constant as the project site)
Reduction in eutrophication for coastal receiving waters
A reduction in sewage pollution and associated target

As mentioned, the associated area will generally remain constant, but an initial measurement is required.

It may be possible to show reduction in coastal water eutrophication arising from project outputs, but this isn't likely in the project timeframes because the nutrient reductions are only likely to be evident towards the end of the project. Changes in nutrient status often take years to respond as nutrients can recycle within coastal systems for many years depending on exchanges, sediment and biota nutrient

fluxes re-establishing a dynamic equilibrium and natural system variation. Therefore, the capacity to demonstrate eutrophication reduction relies on demonstrating sewage pollution reduction, which in turn relies on estimating reduced loads. This approach is consistent with the Project Documents, which state that environmental stress reduction should be used as a proxy for environmental state improvement in the PMEF.

Reduction in coastal water eutrophication will therefore be implied from measurable reductions in sewage pollution discharges to groundwater or surface waters ultimately discharging into coastal waters.

The measured indicator is therefore reduced to a simple indicator – the reduction of sewage pollution, with an associated target (35% reduction). An example of the sewage pollution reduction indicator for the Nauru demonstration project is shown in **Figure 1**. In this example, the reduction in sewage pollution is the indicator (green boxes). The baseline is zero (or no reduction from current levels). The target is a 35% reduction. The annotation provides information on contributing stages of the project over a  $2\frac{1}{2}$  year period.

Figure 1 Example Indicator Plot

#### 40% Target 35% 30% Trial secondary teatment systems Percentage Reduction 25% installed Treatment system refinements 20% 15% 10% Install Initial Septic tanks 5%

# Nauru Sewage Pollution Reduction

By breaking the Project Documents into simple indicators, tracking can be simplified. Without this sort of indicator, tracking is complex, relying on reporting against a complex target.

Baseline

The reporting against this indicator is then simplified to:

#### Country Reporting:

0%

Nauru Target:

35% reduction in sewage pollution in Ewa and Anetan Communities (20 ha)

Scorecard:

Complete
Mostly Complete
Partially Complete
Mostly Incomplete
Significant measurable reduction in sewage pollution

Or

Strategy and funding in place, but groundworks not

completed to deliver reduction in sewage pollution

Incomplete No significant reduction in sewage pollution

This can be assessed at a community level – likely to be close to this level of reduction across whole community if 50% achieved for each septic through secondary treatment for demonstration sites. Demonstrated through a study report on demonstrations endorsed by the Steering Committee.

Baseline data: Catchment area

Existing state of sanitation systems in demonstration site

#### Regional Reporting:

Scorecard: Complete 35% reduction in sewage pollution over 40,000 ha, reducing

eutrophication in 4 coastal waters

Mostly Complete Achieve 2 of 3 of 35% reduction in sewage pollution, over

40,000ha area, reducing eutrophication in 4 coastal waters

Or

25% reduction in sewage pollution over 40,000 ha, reducing

eutrophication in 4 coastal waters

Partially Complete At least 20% increase in forested and protected area over at

least 20,000ha, reducing eutrophication in at least 2 coastal

waters

Mostly Incomplete Measurable reductions in sewage pollution reducing sewage

pollution in at least 2 coastal waters

**Incomplete** No significant reduction in sewage pollution

This approach provides tools for tracking progress, assessing overall outcome and contribution to regional outcomes.

#### 3. MATTERS FOR CONSIDERATION BY THE REGIONAL STEERING COMMITTEE

Annex 1 contains the original logical framework matrix for the project and objectively verifiable Impact indicators. Annex 2 contains for each logframe target, the simplified targets and indicators, as well as the project monitoring and evaluation framework. Annex 3 contains an example of a country specific monitoring and evaluation template as completed by the Samoa team. These country specific templates were sent to all countries for completion.

The RSC is invited to review, revise as appropriate, and endorse Project Monitoring and Evaluation Framework developed for the GEF Pacific IWRM Project

Annex 1: Logical Framework and Objectively Verifiable Impact Indicators

Project Strategy	Objectively verifiable indicators					
Goal	To contribute to sustainable development in the Pacific Islands Region through improvements in water resource and environmental management.					
	Indicator	<u>Baseline</u>	<u>Target</u>	Sources of verification	Risks and Assumptions	
Objective: Improved water resources 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 Integrated Water Resources Management (IWRM) and Water Use Efficiency (WUE) plans	1.1 Overarching improvement in water resource management, quality and availability through appropriate national Demonstration Project execution and concurrent reforms in policy, legislation and institutional arrangements leading to global environmental benefits [P]  1.2 Actual change in institutional and societal behaviour [P]	1.1 Fragmented institutional responsibilities, weak policies, communication & coordination resulting in fragile or non-existent IWRM approaches in place  1.2 Poor and inconsistent data collection for monitoring and inadequate action and investment and change based on monitoring information	1.1 14 National IWRM and Water Use Efficiency Strategies in place, with institutional ownership secured with 20% increase in national budget allocations by month 42 [P]  1.2 Best IWRM and WUE approaches mainstreamed into national and regional planning frameworks by end of project facilitated by national IWRM APEX bodies, Project Steering Committee, Pacific Partnership, and PCU by month 60 [P]  1.3 Environmental stress reduction in 14 Pacific SIDS: 30% increase in forest area for ~8,000 ha of land, 35% reduction in sewage pollution over eq.~40,000 ha area leading to reduction in eutrophication for 4 coastal receiving waters sites, and 35% reduction in water leakage for systems supplying ~85,000 people by end of project, leading to av. 30% increase in population with access to safe water supply and sanitation for 6 sites (based on targets under Component 1) [SR]	Demonstration Project Annual Reporting  National IWRM Plans and Water Use Efficiency Strategies with appropriate budget allocations in place  Indicator Framework mechanism  National Government feedback on institutional changes  Pacific Partnership, RAP, NAPA, NAP, NSDSs, and MDG reporting	Strong and high-level government commitment is sustained and willing to make change – adequate understanding and political will  Able to monitor and update baseline information and action taken ion findings and results  Inclusive stakeholder involvement in the IWRM consultation process	

	<u> </u>	Γ		T	
Component 1:	110				
Demonstration,	1.1 Step change	1.1 Fragmented	i) Watershed Management	Demonstration	Available
Capture and	improvement in	institutional	2 Basin Flood Risk	Project	local capacity
Transfer of	baseline situation	responsibilities,	Management Plans resulting in	Annual	to manage and
Best Practices	(based on Diagnostic	weak policies,	10% reduction in	Reporting	implement
in IWRM and	Analyses) from	communication &	infrastructure loss due to		national
WUE	project start,	coordination	flooding (on approximately	National	Demonstration
	including adoption of	resulting in fragile	18,000 ha of land) by end of	IWRM Plans	projects
Component 1	technical and	or non-existent	project [SR]	and Water Use	
Outcome:	allocative water use	IWRM approaches	2007	Efficiency	Inclusive
Lessons learned	efficiency approaches	in place	30% increase in forest area at	Strategies	stakeholder
from	by end of project	121	2 Demonstration Sites	with	involvement in the IWRM
demonstrations of IWRM and	[SR]	1.2 Lessons learned from water	covering ~8,000 ha of land	appropriate budget	consultation
water use		management and	[SR]	allocations in	
efficiency		IWRM type	(ii) Wastewater & Sanitation	place	process
approaches		interventions are	Management	place	Mechanisms
replicated and		not shared or acted	35% reduction in sewage	Pacific	and
mainstreamed		upon	pollution discharge at 8	Partnership	approaches to
into existing		upon	Demonstration sites (covering	and RAP	capture
cross-sectoral		1.3 Water Use	eq. 40,000 ha of land) by	reporting	lessons are
local, national		Efficiency is	month 48 [SR]	11.5	appropriate
and regional		poorly understood			and promote
approaches to		and often not	(iii) Water Resources		action and
water		considered in	Assessment & Protection		replication
management		water management	4 SIDS have revised		•
		decisions	legislation in place to protect		
			surface water quality by end of		
		1.4 Pollutants from	project [P]		
		sanitation systems,			
		industrial and	(iv) Water Use Efficiency &		
		urban discharges	Water Safety		
		and poor land	35% reduction in leakage in 3		
		management practices enter	national urban water supply systems (serving ~85,000		
		fresh surface and	people) by month 42 and		
		groundwater and	reduction over freshwater		
		coastal receiving	usage for sanitation by end of		
		waters	project [SR]		
			Replication of technical and		
			water use efficiency lessons		
			from project applied in future		
			national and project based		
			activities by end of project [P]		
			Technical, management,		
			participatory and advocacy		
			lessons from projects		
			developed into national		
			lessons learned presentation		
			packages with best practices		
			mainstreamed into national		
			and regional approaches by		
			end of project facilitated by		
			national IWRM APEX bodies,		
			Project Steering Committee,		
			Pacific Partnership, and PCU		
			[P]		
	•	•		•	-

Component 2: IWRM and WUE Regional Indicator Framework  Component 2 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	1.1 Multi-sectoral approaches to national water and environmental management improved and increased through M&E feedback and action, leading to global environmental benefits by end of project [P]	1.1 Poor and inconsistent data collection for monitoring and inadequate action and investment and change based on monitoring information	1.1 Indicator feedback facilitated through IWRM APEX Body provides information for multi-sectoral action and endorsement of national and indicators for IWRM, NAPA, NAP and sustainable development planning (NSDSs and NEAPs) by end of project [P]	Indicator Framework mechanism in place and active  Increase national budget for hot-spot areas identified by Indicator Framework	Strong understanding and willingness to use and act upon the data is present
Component 3: Policy, Legislative and Institutional Reform for IWRM and WUE  Component 3 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	1.1 Nationally endorsed IWRM plans and WUE strategies in place and driving sustainable water governance reform in PICS by end of project [P]	1.1 No nationally endorsed IWRM plans or water use efficiency approaches in place 1.2 Fragmented national and regional water sector	1.1 14 draft National IWRM and Water Use Efficiency Strategies in place, with institutional ownership secured through the national APEX body and institutional mandates adjusted/confirmed as IWRM implementing agencies with appropriate budget allocations by month 42 [P]	National IWRM Plans and Water Use Efficiency Strategies with appropriate budget allocations in place National budget plans	Strong and high-level government commitment is sustained and willing to make change – adequate understanding and political will
Component 4: Regional and National Capacity Building and Sustainability Programme for IWRM and WUE, including Knowledge Exchange and Learning and Replication  Component 4 Outcome: Improved institutional and community capacity in IWRM at national and regional levels	1.1 Measurable sustained increase in training and awareness campaigns, including appropriate national level financial allocations for capacity development by end of project [P]	1.1 Poor collection and exchange of information within and between countries, often sectorally focused with poor consideration of investment planning required to ensure sustainability and human capacity development needs	1.1 Increase in national staff (both men and women) across institutions with IWRM knowledge and experience by end of project [P]  1.2 30% increase in gender balanced community and wider stakeholder engagement in water related issues by month 60, [P]  1.3 Improved cross-sectoral communication by end of project [P]	National water management reporting  National and regional press  National Government feedback on institutional changes  Pacific Partnership and RAP reporting	Strong and high-level government commitment is sustained and willing to make change – adequate understanding and political will  Stakeholders able to understand, cope and promote IWRM

Component 1: Demonstration, Capture and Transfer of Best Practices in IWRM and WUE [UNDP]

Component 2: IWRM and WUE Regional Indicator Framework [UNEP]

Project Strategy	Objectively verifiable indicators					
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 benefit Indicator	<u>Baseline</u>	<u>Target</u>	Sources of verification	Risks and Assumptions	
Component 2	115	4.437	111		-	
Outputs:	1.1 Regional Indicator Framework	1.1 National approaches do	1.1 Aggregation of all final national demonstration	Revised and finally endorsed	Indicator data is available	
2.1 Process, Stress	(RIF) integrated into	not use	project indicators by month	Demonstration	and/or the	
Reduction,	national sustainable	appropriate	8 of the project [P]	Project Proposals	means to	
Environmental and Socio-Economic	development approaches (NSDSs	indicators and where they do	1.2 Draft regional Indictor	(available month 8)	find/collect the data are	
Status, WUE,	and NEAPs) and	these are single	Framework developed for	0)	available	
Catalytic,	national adaptation	sectoral in	consultation by month 18 of	C2 Indicator		
Governance, Proxy,	programmes for action (NAPAs) and	nature	the project [P]	Framework	Ctores	
and X-Cutting Regional Indicator	national adaptation	1.2	1.3 Countries fully utilizing	annual reports	Strong understanding	
Framework (RIF)	plans (NAPs) for	Communities	Indicator Framework by	Regional	and	
established and in	disaster risk	are rarely	month 36 [P]	Indicator	willingness to	
use	reduction [P]	involved in water and	1.4 Stakeholder consultation	Framework progress reports	use and act upon the data	
2.2 Participatory	1.2 Indicator data	environmental	and approval of project	progress reports	is present	
M&E adopted	provides evidence	management	design and PM&E plan for	National	•	
within	base for action by	approaches	each national demonstration	Demonstration	Ctores	
Demonstration Projects [C1] and	SIDS National Governments [P]	1.3 Monitoring	project by month 8 of the project, including separate	Project reporting	Strong willingness to	
mainstreamed into	Covernments [1]	is not a	consultations with women	Annual national	participate by	
national best	1.3 Communities	mainstreamed	[P]	IWRM reporting	communities	
practice	actively involved in designing,	practice in national	1.5 National promotion and	by national APEX bodies	involved in Demonstration	
2.3 Improved	implementing and	institutions	adoption of PM&E	AI EX bodies	Projects and	
institutional capacity	monitoring water and	responsible for	approaches by national	Training Needs	wider	
for monitoring and support for action on	environment projects	water and environmental	water APEX body by month 36 of project using Most	Assessment	stakeholders	
findings across the	[P]	management	Significant Change (MSC)	report and Training of		
region, including	1.4 National expert		and reflection and learning	Trainers	Willingness	
Pacific RAP	monitoring staff	1.4 Inconsistent	techniques [P]	workshops	by national	
progress for water investment planning	available as a resource to National	monitoring data collection and	1.6 Relevant national	National	government to learn from and	
(and International	IWRM APEX bodies	insufficient use	country staff trained in	Monitoring Plans	adopt PM&E	
Waters SAP)	and across	of information	monitoring and PM&E	and relevant data	approaches	
	government using systems thinking	for intervention improvements	approaches by month 24 of the project based on needs	collection records and	where applicable	
	approaches [P]	and planning	assessment [P]	action	аррпсавіс	
				recommendations		
	1.5 Established national data		1.7 APEX body leading institutional training in	Danianal matrix	Appropriate staff are	
	collection for		consistent data collection	Regional matrix available online	available to	
	monitoring and		and development of national	and annual	work with	
	access by all database		monitoring rationale by	investment	project staff	
	facilities with appropriate		month 36 of project [P]	planning reporting per	and the national	
	institutional		1.8 Regional matrix in place	country	IWRM APEX	
	mandates and powers		for Pacific RAP monitoring		bodies to	
	in place for use of and action with the		and national investment planning by month 42 of the		mainstream monitoring	
	data for national		project [P]		into normal	
	programming,				practice	
	advocacy, learning and accountability					
	[P]					

# $\label{lem:component:com$

Component 3	Objectively verifiable indicators						
Component 3 verification Assump	rnment						
Outputs:   1.1 National IWRM   Appropriate and adopted by SIDS   National IWRM plans in place and adopted by SIDS   National Governments with appropriate ersources to implement and monitor & strategic links made to NAP3s and NAPs, NSDSs, and coastal resources to implement and organisations of IWRM approaches agreed across national, community and regional organisations   1.3 APEX bodies in place and adopted by SIDS   National Governments with appropriate ersources to implement and organisations and open by SIDS   National Governments with appropriate ersources to implement and monitor [P]   1.3 Page to the with weak or no mandates 7 Tos, and output and sustainable plans for a catchy approaches agreed across national, a community and regional organisations and open by SIDS   National Governments with appropriate ersources to implement and monitor [P]   1.3 APEX bodies in place and adopted by SIDS   National Governments with approaches agreed across actival posterior ergonal to the properties in place and organisations and organisations and organisations and organisations and organisations and organisations and properties and manufactures including balanced gender membership adaction systems and the private sector service and the private sector service and the private society, governments, education systems and the private sector sector or sector or sector or sector or sector with approaches agreed across civil society, governments, education systems and the private sector in the private society of the coordination of national and technical interventions required for Demonstration and inflamential planning for x-sectoral IWRM approaches developed focusing on institutional and technical interventions required for Demonstration and implementation or scaling up as part of Mational IWRM and technical interventions required for Demonstration or scaling up as part of Mational IWRM and technical interventions required for Demonstration or scaling up as part of Mational IWRM and technical interventions required for Demo	national idable ders te. and the priority ist extnerships to exist tion. hips have to use ools or h external hips capacity mal s of good exist and						

# Component 4: Regional and National Capacity Building and Sustainability Programme for IWRM and WUE, including Knowledge Exchange and Learning and Replication [UNEP]

Project Strategy	Objectively verifiable indicators						
Component 4 Objective:	Sustainable IWRM and WUE capacity development, and global SIDS learning and knowledge exchange approaches in place						
	Indicator	<u>Baseline</u>	<u>Target</u>	Sources 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 environmental 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 appropriate media for PICs (linked to Indicator Framework, Pacific RAP and Caribbean and African SIDS approaches) [P]	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	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 incountries and willing to take on the role  National participation in the twinning approach and lessons learned and fedback  Public concerned about water and catchment management issues  Countries willing to share information with each other, regionally and inter-regionally		

# **ANNEX 2**

# **LOGFRAME TARGET 1**

14 National IWRM and Water Use Efficiency Strategies in place, with institutional ownership secured with 20% increase in national budget allocations by month 42

#### and

Draft National IWRM plans and Water Use Efficiency strategies produced by June 2010, with final versions published by end 2010

# **Proposed Target:**

14 National IWRM Strategies in place incorporating Water Use Efficiency, with institutional ownership secured. A 20% increase in national budget allocations by month 54

### Proposed Indicator(s)

Strategies in place:

1. National strategies in place (in the form of national policy, strategic framework, plan, etc) addressing explicitly both IWRM and water use efficiency

Increase in National Budget:

2. 20% increase in national budget attributable to IWRM and WUE

Relies on capacity to clearly identify budget component attributable to IWRM/WUE which may be challenging

Options include:

- i. Discrete budget line
- ii. Clear ability to break down budget

Comparison required against feedback – suspect that this is currently a baseline of zero in most countries; meaning any allocation will strictly satisfy.

A secondary approach, where it is not possible to show an increase in budget is to show that institutional ownership is secured through allocation of discrete budget line(s) to IWRM and/or WUE

# Country Reporting

Scorecard: Complete
Mostly Complete
Strategy endorsed and 20% increase in budget
Strategy endorsed, budget allocated to IWRM and WUE, but no increase in budget
Strategy endorsed with reference to IWRM and WUE, with budget lines allocated to IWRM and WUE

Mostly Incomplete
Strategy endorsed with reference to IWRM and WUE, but not consistent with best practice; no

budget allocationIncompleteNo change in national policy or budget

# Regional Reporting

**Scorecard:** Complete Strategy endorsed and 20% increase in budget

in 12 countries

Mostly Complete Strategy endorsed and 20% increase in budget

in 9 countries

Partially Complete Strategy endorsed in 5 countries

Mostly Incomplete Strategy endorsed in up to 3 countries

Incomplete Strategy not endorsed in any countries

Baseline will need to include any allocation likely to be moved across to IWRM and WUE to enable direct comparison.

Note that a 20% increase may be consistent with CPI increase – although recession may impact on this.

Country	Indicator	Target	Means of Verification	Baseline
Cook Islands	National Strategy in Place     Developed through EU IWRM contract	☐ Strategy in place by mid 2012	☐ Endorsement by Minister	☐ None required
	2 Discrete Budget Line for IWRM	☐ Budget line in place by mid- 2013	☐ Cook Islands 2013/4 Budget (1 April 2013)	☐ None required
	Anticipated to be achieved through National Policy development, due mid-2012	2013	(1 April 2015)	
	3 National budget allocated to IWRM and WUE	☐ 20% increase in Budget	☐ Budgets 2009/10 and 2013/4	☐ Statement of 2009/10 budget allocated to IWRM and WUE
Fiji	1 National Strategy in Place	☐ Strategy in place by mid 2012	☐ Endorsement by Cabinet	☐ None required
	Developed through Junior Professional			
	2 Discrete Budget Line for IWRM	☐ Budget line in place by 1 Jan	☐ Fiji Islands 2013 Budget	☐ None required
	Anticipated to be achieved through National Policy development, due mid-2012	2013	(1 January 2013)	
	3 National budget allocated to IWRM and WUE	☐ 20% increase in Budget	☐ Budgets 2009 and 2013	☐ Statement of 2009 budget allocated to IWRM and WUE
FSM	1 National Strategy in Place	☐ Strategy in place by mid 2012	☐ Endorsement by Cabinet	☐ None required
	Developed through process initiated in Summit			
	2 Discrete Budget Line for IWRM	☐ Budget line in place by Oct 1	☐ FSM 2013 Budget	☐ None required
	Anticipated to be achieved through National Policy development, due mid-2012	2013	(1 October 2013)	
	3 National budget allocated to IWRM and WUE	☐ 20% increase in Budget	☐ Budgets 2009 and 2013	☐ Statement of 2009 budget allocated to IWRM and WUE
Nauru	1 National Strategy in Place	☐ Strategy in place by mid 2012	☐ Endorsement by Minister	☐ None required
	Developed through EU IWRM Policy contract			
	2 Discrete Budget Line for IWRM	☐ Budget line in place by mid-	☐ Nauru 2013/4 Budget	☐ None required
	Anticipated to be achieved through National Policy development, due mid-2012	2013	(1 July 2013)	
	3 National budget allocated to IWRM and WUE	☐ 20% increase in Budget	☐ Budgets 2009/10 and 2013/4	☐ Statement of 2009/10 budget allocated to IWRM and WUE

Country	Indicator	Target	Means of Verification	Baseline
Niue	1 National Strategy in Place	☐ Strategy in place by mid 2012	☐ Endorsement by Cabinet	☐ None required
	Developed through EU IWRM Policy contract			
	2 Discrete Budget Line for IWRM	☐ Budget line in place by mid- 2013	☐ Niue 2013 Budget (1 April 2013)	☐ None required
	Anticipated to be achieved through National Policy development, due mid-2012	2013	(1 April 2013)	
	3 National budget allocated to IWRM and WUE	☐ 20% increase in Budget	☐ Budgets 2009 and 2013	☐ Statement of 2009 budget allocated to IWRM and WUE
Palau	1 National Strategy in Place	☐ Strategy in place by mid 2012	☐ Endorsement by Cabinet	☐ None required
	Developed through process initiated in Summit			
	2 Discrete Budget Line for IWRM	☐ Budget line in place by mid-	☐ Palau 2013 Budget	☐ None required
	Anticipated to be achieved through National Policy development	2013	(1 October 2013)	
	3 National budget allocated to IWRM and WUE	☐ 20% increase in Budget	☐ Budgets 2009 and 2013	☐ Statement of current budget allocated to IWRM and WUE
PNG	1 National Strategy in Place	☐ Strategy in place by mid 2012	☐ Endorsement by Cabinet	☐ None required
	Developed through Junior Professional			
	2 Discrete Budget Line for IWRM	☐ Budget line in place by mid-	☐ PNG 2013 Budget	☐ None required
	Anticipated to be achieved through National Strategy	2013	(1 January 2013)	
	3 National budget allocated to IWRM and WUE	☐ 20% increase in Budget	☐ Budgets 2009 and 2013	☐ Statement of 2009 budget allocated to IWRM and WUE
RMI	1 National Strategy in Place	☐ Strategy in place by mid 2012	☐ Endorsement by Cabinet	☐ None required
	Developed through process initiated in Summit			
	2 Discrete Budget Line for IWRM	☐ Budget line in place by mid-	☐ RMI 2013 Budget	☐ None required
	Anticipated to be achieved through National Policy development	2013	(1 October 2013)	
	3 National budget allocated to IWRM and WUE	☐ 20% increase	☐ Budgets 2009 and 2013	☐ Statement of 2009 budget allocated to IWRM and WUE

Country	Indicator	Target	Means of Verification	Baseline
Samoa	1 National Strategy in Place	☐ Strategy in place by mid 2012	☐ Endorsement by Cabinet	☐ None required
	Discrete Budget Line for IWRM     Anticipated to be achieved through National Policy	☐ Budget line in place by mid- 2013	☐ Samoa 2013 Budget (1 June 2013)	☐ None required
	development  3 National budget allocated to IWRM and WUE	□ 20% increase	☐ Budgets 2009 and 2013	☐ Statement of 2009 budget allocated to IWRM and WUE
Solomon Islands	National Strategy in Place     Developed through Junior Professional	☐ Strategy in place by mid 2012	☐ Endorsement by Cabinet	☐ None required
	Discrete Budget Line for IWRM     Mechanism to be finalised	☐ Budget line in place by mid- 2013	☐ Solomon Islands 2013 Budget (1 January 2013)	☐ None required
	National budget allocated to IWRM and WUE	☐ 20% increase	☐ Budgets 2009 and 2013	☐ Statement of 2009 budget allocated to IWRM and WUE
Tonga	National Legislation in Place     Developed through EU IWRM project	☐ Strategy in place by mid 2012	☐ Endorsement by Cabinet	☐ None required
	Discrete Budget Line for IWRM     Anticipated to be achieved through Legislation	☐ Budget line in place by mid- 2013	☐ Tonga Islands 2013 Budget (1 July 2013)	☐ None required
	3 National budget allocated to IWRM and WUE	☐ 20% increase	☐ Budgets 2009 and 2013	☐ Statement of 2009 budget allocated to IWRM and WUE
Tuvalu	1 National Strategy in place	☐ Strategy in place by mid 2012	☐ Endorsement by Cabinet	☐ None required
	Developed through Junior Professional  2 Discrete Budget Line for IWRM  Anticipated to be achieved through National Policy	☐ Budget line in place by mid- 2013	☐ Tuvalu 2013 Budget (1 January 2013)	☐ None required
	development, due mid-2012  3 National budget allocated to IWRM and WUE	□ 20% increase	☐ Budgets 2009 and 2013	☐ Statement of 2009 budget allocated to IWRM and WUE
Vanuatu	National Strategy in Place     Developed through Junior Professional	☐ Strategy in place by mid 2012	☐ Endorsement by Cabinet	☐ None required
	Discrete Budget Line for IWRM     Anticipated to be achieved through National Strategy	☐ Budget line in place by mid- 2013	☐ Vanuatu 2013 Budget (1 January 2013)	☐ None required
	3 National budget allocated to IWRM and WUE	□ 20% increase	☐ Budgets 2009 and 2013	☐ Statement of 2009 budget allocated to IWRM and WUE

Best IWRM and WUE approaches mainstreamed into national and regional planning frameworks by end of project facilitated by national IWRM APEX bodies, Project Steering Committee, Pacific Partnership, and PCU by month 60

# Proposed Indicator(s)

Best IWRM and WUE approaches assessed:

# 4. Best IWRM and WUE approaches defined for each country

Relies on capacity to clearly identify best IWRM and WUE approaches at national and regional levels

# Options include:

- i. Review of IWRM at a national level undertaken
- ii. Statement of generic IWRM and WUE best practice

All countries (except Fiji and Vanuatu) indicated that reviews of how to mainstream IWRM and WUE into national planning would be done during 2011-2013. It is suggested that if this target is to be met, then these reviews should be undertaken during the first half of 2011. It is likely that evaluation of project performance in meeting this meeting will be audit based, requiring some form of assessment in each country as to the mechanisms for improving and mainstreaming.

# 5. Best approaches to IWRM and WUE mainstreamed into national and regional planning frameworks

Relies on capacity to clearly identify whether best approaches have been mainstreamed.

# Options include:

- i. Incorporation of recommendations of review of best approaches
- ii. Incorporation of generic IWRM and WUE best practice

Given that most countries will have completed a review of best practice, incorporation of these recommendations is the most obvious and appropriate approach.

The mechanism for ensuring that this as been delivered would require some form of audit, either through PCU, peer (another country) or independent consultant

# **Country Reporting**

Scorecard:	Complete	Best Practices mainstreamed into national planning framework
	Mostly Complete	Best Practices defined and largely incorporated
		into planning framework
	Partially Complete	Best practices defined, with references to some
		in planning framework; or incorporated into
		Agency strategies, but not mainstreamed
	Mostly Incomplete	Best practices defines, but not incorporated into
		framework
	Incomplete	Best practices not defined

# Regional Reporting

**Scorecard:** Complete Best Practices mainstreamed into national

planning framework in 12 countries

Mostly Complete Best Practices mainstreamed into national

planning framework in 9 countries

Partially Complete Best Practices mainstreamed into national

planning framework in 5 countries

**Mostly Incomplete** Best Practices mainstreamed into national

planning framework in up to 3 countries

Incomplete Best Practices not mainstreamed in any

countries

# **Baseline**

No Baseline required

Country	Indicator	Target	Means of Verification	Baseline
Cook Islands	4 Best IWRM and WUE approaches defined Developed through EU IWRM project	☐ Approach defined	☐ Endorsement by APEX body	☐ None required
	5 Best approaches to IWRM and WUE mainstreamed into national and regional planning frameworks  Should be completed as part of national strategy development by mid-2012	□ National Strategy incorporates defined approach	<ul><li>Audit by:</li><li>Independent consultant</li><li>Peer review</li><li>PCU audit</li></ul>	☐ None required
Fiji	4 Best IWRM and WUE approaches defined for each country Developed through EU IWRM project	☐ Approach defined	☐ Endorsement by APEX body	☐ None required
	5 Best approaches to IWRM and WUE mainstreamed into national and regional planning frameworks  Should be completed as part of national strategy development by mid-2012	■ National Strategy incorporates defined approach	<ul><li>Audit by:</li><li>Independent consultant</li><li>Peer review</li><li>PCU audit</li></ul>	☐ None required
FSM	4 Best IWRM and WUE approaches defined for each country Developed through EU IWRM project	☐ Approach defined	☐ Endorsement by APEX body	☐ None required
	5 Best approaches to IWRM and WUE mainstreamed into national and regional planning frameworks  Should be completed as part of national strategy development by mid-2012	□ National Strategy incorporates defined approach	<ul><li>Audit by:</li><li>Independent consultant</li><li>Peer review</li><li>PCU audit</li></ul>	☐ None required
Nauru	4 Best IWRM and WUE approaches defined for each country Developed through EU IWRM project	☐ Approach defined	☐ Endorsement by APEX body	☐ None required
	5 Best approaches to IWRM and WUE mainstreamed into national and regional planning frameworks Should be completed as part of national strategy development by mid-2012	□ National Strategy incorporates defined approach	<ul><li>Audit by:</li><li>Independent consultant</li><li>Peer review</li><li>PCU audit</li></ul>	□ None required

Country	Indicator	Target	Means of Verification	Baseline
Niue	4 Best IWRM and WUE approaches defined for each country Developed through EU IWRM project	☐ Approach defined	☐ Endorsement by APEX body	☐ None required
	5 Best approaches to IWRM and WUE mainstreamed into national and regional planning frameworks	□ National Strategy incorporates defined approach	<ul><li>Audit by:</li><li>Independent consultant</li></ul>	☐ None required
	Should be completed as part of national strategy development by mid-2012		<ul><li>Peer review</li><li>PCU audit</li></ul>	
Palau	4 Best IWRM and WUE approaches defined for each country	☐ Approach defined	☐ Endorsement by APEX body	☐ None required
	Developed through EU IWRM project			
	5 Best approaches to IWRM and WUE mainstreamed into national and regional planning frameworks	□ National Strategy incorporates defined approach	<ul><li>Audit by:</li><li>Independent consultant</li></ul>	☐ None required
	Should be completed as part of national strategy development by mid-2012		<ul><li>Peer review</li><li>PCU audit</li></ul>	
PNG	4 Best IWRM and WUE approaches defined for each country	☐ Approach defined	☐ Endorsement by APEX body	☐ None required
	Developed through EU IWRM project	project  M and WUE mainstreamed into  Mational Strategy incorporates defined		
	5 Best approaches to IWRM and WUE mainstreamed into national and regional planning frameworks		<ul><li>Audit by:</li><li>Independent consultant</li></ul>	☐ None required
	Should be completed as part of national strategy development by mid-2012		Peer review     PCU audit	
RMI	4 Best IWRM and WUE approaches defined for each country	☐ Approach defined	☐ Endorsement by APEX body	☐ None required
	Developed through EU IWRM project			
	5 Best approaches to IWRM and WUE mainstreamed into national and regional planning frameworks	□ National Strategy incorporates defined approach	<ul><li>Audit by:</li><li>Independent consultant</li></ul>	■ None required
	Should be completed as part of national strategy development by mid-2012		Peer review     PCU audit	
Samoa	4 Best IWRM and WUE approaches defined for each country	☐ Approach defined	☐ Endorsement by APEX body	☐ None required
	Developed through EU IWRM project			
	5 Best approaches to IWRM and WUE mainstreamed into national and regional planning frameworks	□ National Strategy incorporates defined approach	<ul><li>Audit by:</li><li>Independent consultant</li></ul>	■ None required
	Should be completed as part of national strategy development by mid-2012		Peer review     PCU audit	

Country	Indicator	Target	Means of Verification	Baseline
Solomon Islands	4 Best IWRM and WUE approaches defined for each country Developed through EU IWRM project	☐ Approach defined	☐ Endorsement by APEX body	☐ None required
	5 Best approaches to IWRM and WUE mainstreamed into national and regional planning frameworks Should be completed as part of national strategy development by	□ National Strategy incorporates defined approach	<ul><li>Audit by:</li><li>Independent consultant</li><li>Peer review</li></ul>	□ None required
	mid-2012		PCU audit	
Tonga	4 Best IWRM and WUE approaches defined for each country Developed through EU IWRM project	☐ Approach defined	☐ Endorsement by APEX body	☐ None required
	5 Best approaches to IWRM and WUE mainstreamed into national and regional planning frameworks	□ National Strategy incorporates defined approach	<ul><li>☐ Audit by:</li><li>Independent consultant</li></ul>	□ None required
	Should be completed as part of national strategy development by mid-2012		<ul><li>Peer review</li><li>PCU audit</li></ul>	
Tuvalu	4 Best IWRM and WUE approaches defined for each country	☐ Approach defined	☐ Endorsement by APEX body	☐ None required
	Developed through EU IWRM project			
	5 Best approaches to IWRM and WUE mainstreamed into national and regional planning frameworks	□ National Strategy incorporates defined approach	<ul><li>Audit by:</li><li>Independent consultant</li></ul>	☐ None required
	Should be completed as part of national strategy development by mid-2012		<ul><li>Peer review</li><li>PCU audit</li></ul>	
Vanuatu	4 Best IWRM and WUE approaches defined for each country	☐ Approach defined	☐ Endorsement by APEX body	☐ None required
	Developed through EU IWRM project			
	5 Best approaches to IWRM and WUE mainstreamed into national and regional planning frameworks	□ National Strategy incorporates defined approach	<ul><li>Audit by:</li><li>Independent consultant</li></ul>	□ None required
	Should be completed as part of national strategy development by mid-2012		Peer review     PCU audit	

# Environmental stress reduction in 14 Pacific SIDS: 30% increase in forest area for ~8,000 ha of land

The interpretation that must be applied to this target for it to be meaningful is "area of land protected and/or rehabilitated". There will not be a significant degree of reforestation within the project timelines. The "percentage increase" in forest area is interpreted as "coverage over the catchment".

# Proposed Indicator(s)

## 6. Increase in land protected and/or rehabilitated over catchment

For land to be declared as 'protected' there needs to be a formal statement supported by Legislation (either directly or through Regulations) of the land boundaries and the degree of protection. The types of changes that would be considered appropriate include:

- i. Protection of catchment area from development as some form of reserve (e.g. watershed or conservation) or national park
- ii. Change in land use planning from developed (e.g. pasture or cropping) to forestry or reserve
- iii. Planting or replanting areas to rehabilitate reserve areas or watercourse riparian and catchment areas

The area could simply be determined through GIS mapping.

Note that other partner initiatives that qualify as co-funding (such as forestry initiatives in the catchment) can be counted towards achieving this target.

#### Country Reporting

Scorecard:	Complete	Target increase in forested and protected area achieved through formal declaration
	Mostly Complete	3/4 of target increase in forested and protected area achieved through formal declaration
	Partially Complete	At least ¾ of target increase in forested and protected area achieved through, but no formal declaration
	Mostly Incomplete	Measurable increases in forested and protected areas, without formal declaration
	Incomplete	No significant increase in forested or protected areas

# Regional Reporting

Scorecard:	Complete	30% increase in forested and protected area over 8,000 ha of catchments
	Mostly Complete	30% increase in forested and protected area over 6,000 ha of catchments; or 20% increase in forested and protected area over 8,000 ha of catchments
	Partially Complete	At least 15% increase in forested and protected area over 8,000ha of catchment; or a 30% increase in forested area over at least 4,000ha of catchment
	Mostly Incomplete Incomplete	Measurable increases in forested and protected areas No significant increase in forested or protected areas

#### Baseline

Catchment and forested and protected area areas defined as of beginning 2009, or as close as possible in time

Country	Indicator	Target	Means of Verification	Baseline
Cook Islands	6 Increase in land protected and/or rehabilitated over the catchment Groundwater and/or surface water catchments may be declared reserves. Unlikely that significant revegetation will occur associated with the project		☐ Reserves declared by Cabinet (Cabinet minutes)	☐ Catchment area ☐ Reserves declared by Cabinet / Minister at 1 January 2009 ☐ Catchment forestry and native vegetation coverage as at 1 January 2009 or as close as practical in time (if there is likely to be significant revegetation associated with the project)
FSM	6 Increase in land protected and/or rehabilitated over the catchment Groundwater and/or surface water catchments may be declared reserves. Unlikely that significant revegetation will occur associated with the project	□ 2,000 ha	☐ Reserves declared by Cabinet (Cabinet minutes)	☐ Catchment area ☐ Reserves declared by Cabinet / Minister at 1 January 2009 ☐ Catchment forestry and native vegetation coverage as at 1 January 2009 or as close as practical in time (if there is likely to be significant revegetation associated with the project)
Palau	6 Increase in land protected and/or rehabilitated over the catchment Surface water catchments may be declared reserves. Some revegetation will occur associated with the project; however unlikely to be on significant scale	□ 1,000 ha	<ul> <li>□ Reserves declared by Cabinet (Cabinet minutes)</li> <li>□ Completion report on riparian zone revegetation endorsed by Steering Committee</li> </ul>	☐ Catchment area ☐ Reserves declared by Cabinet / Minister at 1 January 2009 ☐ Catchment forestry and native vegetation coverage as at 1 January 2009 or as close as practical in time
Samoa	6 Increase in land protected and/or rehabilitated over the catchment Groundwater and/or surface water catchments may be declared reserves. Unlikely that significant revegetation will occur associated with the project	□ 2,000 ha	☐ Reserves declared by Cabinet (Cabinet minutes)	☐ Catchment area ☐ Reserves declared by Cabinet / Minister at 1 January 2009 ☐ Catchment forestry and native vegetation coverage as at 1 January 2009 or as close as practical in time (if there is likely to be significant revegetation associated with the project)

Country	Indicator	Target	Means of Verification	Baseline
Solomon Islands	6 Increase in land protected and/or rehabilitated over the catchment Groundwater and/or surface water catchments may be declared reserves. Unlikely that significant revegetation will occur associated with the project	□ 2,000 ha	minutes)	☐ Catchment area ☐ Reserves declared by Cabinet / Minister at 1 January 2009 ☐ Catchment forestry and native vegetation coverage as at 1 January 2009 or as close as practical in time (if there is likely to be significant revegetation associated with the project)
Vanuatu	6 Increase in land protected and/or rehabilitated over the catchment Surface water catchments may be declared reserves. Unlikely that significant revegetation will occur associated with the project	□ 1,000 ha	minutes)	☐ Catchment area ☐ Reserves declared by Cabinet / Minister at 1 January 2009 ☐ Catchment forestry and native vegetation coverage as at 1 January 2009 or as close as practical in time (if there is likely to be significant revegetation associated with the project)

35% reduction in sewage pollution over eq.~40,000 ha area leading to reduction in eutrophication for 4 coastal receiving waters sites

#### Proposed Indicator

# 7. Reduction in sewage pollution

Sewage pollution reduction occurs through removal or reduction of source (e.g. composting toilets or reuse), reduction in pollution levels discharged (e.g. upgrading a cess pit to a septic, secondary treatment) or by increasing the attenuation in the environment (possibly by relocating the source further from a sensitive receiving environment). Examples include:

- i. Reduction in sewage volume as a proportion of houses/septics/population served, achieved through composting toilets, recycling effluent or another means
- ii. Reduction in pollutants entering environment through improved treatment. Each septic tank achieves about 20-30% reduction from a cesspit in the key nutrient and organic pollutants. A secondary treatment process can improve this a further 20-40%
- iii. Introduction of a sludge pump-out truck; effectively converting cesspits into septics

#### <u>Area</u>

The second aspect of this target, the area can simply be determined through GIS or another form of mapping. The area reported is the area over which the project will reduce sewage pollution (typically the project site area, but may be larger if the impacts of the project extend beyond the site boundaries).

#### Reduction in eutrophication for 4 coastal receiving waters

It may be possible to show reduction in coastal water eutrophication arising from project outputs, but this isn't likely in the project timeframes because the nutrient reductions are only likely to be evident towards the end of the project. Changes in nutrient status often take years to respond as nutrients can recycle within coastal systems for many years depending on exchanges, sediment and biota nutrient fluxes re-establishing a dynamic equilibrium and natural system variation. Therefore, the capacity to demonstrate eutrophication reduction relies on demonstrating sewage pollution reduction, which in turn relies on estimating reduced loads. This approach is consistent with the Project Documents, which state that environmental stress reduction should be used as a proxy for environmental state improvement in the project M&E framework.

Reduction in coastal water eutrophication will therefore be implied from measurable reductions in sewage pollution discharges to groundwater or surface waters. In Nauru's case, this link was established in the Diagnostic Report<sup>3</sup> (as the links were for all coastal systems in other countries).

#### Country Reporting

Scorecard:	Complete	Target reduction in sewage pollution and target area
	Mostly Complete	3/4 of target reduction and area achieved
	Partially Complete	½ of target reduction and area achieved
	Mostly Incomplete	Significant measurable reduction in sewage pollution
		Or
		Strategy and funding in place, but groundworks not completed to deliver reduction in sewage pollution
	Incomplete	No significant reduction in sewage pollution

3

# Regional Reporting

**Scorecard:** Complete 35% reduction in sewage pollution over 40,000 ha,

reducing eutrophication in 4 coastal waters

*Mostly Complete* Achieve 2 of 3 of 35% reduction in sewage pollution,

over 40,000ha area, reducing eutrophication in 4

coastal waters

Or

25% reduction in sewage pollution over 40,000 ha,

reducing eutrophication in 4 coastal waters

Partially Complete At least 20% increase in forested and protected area

over at least 20,000ha, reducing eutrophication in at

least 2 coastal waters

Mostly Incomplete Measurable reductions in sewage pollution reducing

sewage pollution in at least 2 coastal waters

Incomplete No significant reduction in sewage pollution

# **Baseline**

Catchment area defined. Number of houses in catchment area needs to be defined. If direct measurement of waters quality or pollution loads is to be used, then a baseline is required.

Country	Indicator	Target	Means of Verification	Baseline
Cook Islands	7 Reduction in sewage pollution in Muri Community Will need to be assessed at a household level as pilot and partner projects unlikely to deliver sufficient reduction over project lifetime Note that if work undertaken by MoH with hotels in parallel with project, reduction may be achieved	☐ 35% reduction in nutrients and organic loads at a household level from household trials	☐ Monitoring report endorsed by Steering Committee (Steering Committee minutes)	☐ Catchment area ☐ Number of households ☐ Groundwater monitoring adjacent to pilot sites ☐ Study to determine sources of pollutants into Muri Lagoon to apportion sources
FSM	7 Reduction in sewage pollution in Nett Watershed	☐ 35% reduction in nutrients and organic loads from rural catchment households (5,000ha)	☐ Survey Reports endorsed by Steering Committee	☐ Catchment area ☐ Pollution Source survey – number of households and sanitation methods
Nauru	7 Reduction in sewage pollution in Ewa and Anetan Communities  Can be assessed at a community level – likely to be close to this level of reduction across whole community if 50% achieved for each septic through secondary treatment	☐ 35% reduction in nutrients and organic loads from communities (20 ha)	☐ Study report on demonstrations endorsed by Steering Committee	☐ Catchment area ☐ Existing state of sanitation systems in demonstration site
RMI	7 Reduction in sewage pollution in Laura Community (150 ha) Will need to be assessed at a household level as pilot and partner projects unlikely to deliver sufficient reduction over project lifetime Assume that this in turn leads to reduction in eutrophication of lagoon	☐ 35% reduction in nutrients and organic loads from household trials	☐ Monitoring report endorsed by Steering Committee (Steering Committee minutes)	☐ Catchment area ☐ Number of households ☐ Groundwater monitoring adjacent to pilot sites

Country	Indicator	Target	Means of Verification	Baseline
Tonga	7 Reduction in sewage pollution across Vava'u (10,000 ha)	☐ 25% reduction in nutrients across Vava'u Island	☐ Pump-out truck report endorsed by Steering Committee (Steering Committee minutes)	☐ Island area ☐ Number of households
	Pump-out of septic tanks should reduce nutrient and organic loads by about 25%			
	Assume that this in turn leads to reduction of eutrophication in Refuge Harbour			
Tuvalu	7 Reduction in sewage pollution across	☐ 5% reduction in sewage pollution over Funafuti	☐ Study report endorsed by Steering Committee	☐ Island area
	Funafuti (180 ha)			☐ Number of households
	Composting toilets should reduce nutrients and organic pollution by over 90%			
Vanuatu	7 Reduction in sewage pollution across Sarakata watershed (30,000 ha)	☐ 40% reduction in sewage pollution in Sarakata watershed	☐ Study report endorsed by Steering Committee	☐ Watershed area
				☐ Number of households

35% reduction in water leakage for systems supplying ~85,000 people by month 42 including a 40% reduction from existing baseline levels in 1 water supply system

#### **Proposed Indicator**

# 8. Reduction in water leakage

Water leakage reduction can be undertaken at household and/or system level. Household level leakage reduction assessment for large catchment relies on either extrapolation of single household savings or distribution reduction. System wide reduction leakage reduction is easier to assess, where meters are available.

One challenge associated with this indicator is to determine what aspects are due to system leakage, compared with factors such as unaccounted usage, apparent losses (such as meter errors) and theft. Additionally, any measurements at a household level may be complicated by significant changes in water use patterns and water use efficiency (which may be likely given associated awareness raising campaigns). Finally, there are factors such as system pressure, that dramatically affect system losses (without altering the number or size of leaks) as leakage is directly proportional to pressure.

Clarification is also required on percentage of reduction – is this a percentage reduction in total leakage volume (which may be affected by interruption of supply) or a reduction in proportion of supply, which may be affected by supply volume and reliability. The latter is the proposed approach, reflecting a more reliable assessment of achievement in systems with variable supply and demand. Alternatively, is this a reduction in another more reliable indicator of performance, such as the Infrastructure leakage index (ILI), which recognises that there is a minimum (unavoidable) level of leakage, such as that commonly used by the International Water Association (IWA)<sup>4</sup>?

In order to simplify the process, it is proposed that simple indicators be used for this assessment; examples indicators include:

- i. Reduction in system losses measured through comparison of meters
- ii. Reduction in overall system use during off-peak (early morning hours)

In order to make losses comparable, system pressures would need to be recorded and losses modified accordingly. There is a necessary implicit assumption in this approach that all losses are leak-driven; disregarding theft, unmetered use, etc.

## Population

The second aspect of this target, the population will need to be assessed, either through an average per connection estimate, census or DHS results if available.

# Country Reporting

Scorecard: Complete

Mostly Complete
Partially Complete
Mostly Incomplete

Mostly Incomplete
Target reduction in water leakage for targeted supply population

Mostly Incomplete
Significant measurable reduction in water leakage

Or
Strategy and funding in place, but groundworks not completed to deliver reduction in leakage reduction

Incomplete
No significant reduction in sewage pollution

<sup>4</sup> The issues and challenges of reducing non-revenue water (ADB, 2010), ISBN 978-92-9092-193-6

## Reduction of 35% of systems supplying ~85,000 people

The achievement of this target is also highly reliant on the Samoa and Solomon Island projects, as the collective populations serviced by the Niue and Tonga projects is about 7,000 people (Niue and Neiafu). The population of Apia is only about 40,000, so collectively these projects won't meet the target. Solomon Islands has identified a demand management plan and leak identification programme, but does not currently have leak reduction flagged. Leak reduction may flow from the Solomon Island's project, and with a Honiara population of close to 80,000, this target may possibly be achieved.

## Regional Reporting

Scorecard:	Complete	35% reduction in water leakage for systems supplying 85,000 people, including a 40% reduction in baseline levels in one system
	Mostly Complete	Achieve 35% reduction in water leakage from systems supplying over 40,000 people, including a 40% reduction in at least one system
	Partially Complete	At least 35% reduction in system water leakage at 2 project sites
	Mostly Incomplete	Measurable leakage reductions in systems in at least 2 coastal waters
	Incomplete	No significant reductions in system water leakage

## Baseline

System populations defined and/or number of connections ate project commencement; or as close as possible in time. System water use and leakage needs to be defined, including note of relevant target pressures.

Country	Indicator	Target	Means of Verification	Baseline
Niue	Reduction in water leakage loss for Alofi supplies     Largely delivered through tank replacement, although metering of Alofi supplies should provide household level improvements	☐ 40% reduction in water leakage from system supplying 400 people	☐ Monitoring report endorsed by Steering Committee (Steering Committee minutes)	☐ Supply volume ☐ Leakage ☐ Population serviced ☐ Pressures associated with leakage
Samoa	8 Reduction in water leakage loss in Apia Largely requiring work to be co-funded by Samoa Water Authority	☐ 30% reduction in water leakage from system supplying 40,000 people	☐ Implementation report endorsed by Steering Committee (Steering Committee Minutes)	□ Supply volume □ Leakage □ Population serviced □ Pressures associated with leakage
Solomon Islands	Reduction in water leakage losses in Honiara     Dependent upon work to be co-funded by	☐ 35% reduction in water leakage from system supplying 80,000 people	☐ Report endorsed by Steering Committee (Steering Committee Minutes)	☐ Supply volume ☐ Leakage ☐ Population serviced ☐ Pressures associated with leakage
Tonga	Reduction in water leakage losses in Vava'u  Systematic leak identification program in partnership with Tonga Water Board. No funding allocated for infrastructure work – dependent upon co-funding by Tonga Water Board	☐ 40% reduction in water leakage from system in Vava'u supplying 5,000 people	☐ Leak reduction report endorsed by Steering Committee (Steering Committee Minutes)	□ Supply volume □ Leakage □ Population serviced □ Pressures associated with leakage

# Average 30% increase in population with access to safe water supply and sanitation for 6 sites

# **Proposed Target:**

6 sites with an average 30% increase in population with access to safe water supply and 6 sites with an average 30% increase in population with access to improved sanitation

There are few demonstration projects that are targeting significant improvements in access to both drinking water supply and sanitation. It is therefore considered that this target relates to a collective achievement of up to 12 project sites, rather than achievement of both targets at 6 sites

#### **Proposed Indicators**

# 9. Population with access to safe water supply

The definition of 'safe' drinking water requires clear definition. The World Health Organization Drinking Water Guidelines (WHO 2008)<sup>5</sup> relates safe drinking water to risk management, recognising that the term 'safe' is relative rather than absolute. Accordingly, the WHO guidelines advocate a risk management process for drinking water protection, delivered through water safety plans (Bartram 2009)<sup>6</sup>.

Developing and implementing a water safety plan is one of the key recognised routes for increasing delivery of 'safe' drinking water. Other mechanisms include the expansion of existing 'safe' supplies, generally through access to existing networks or supplies and implementing existing water safety plans.

Defining the population with access would typically be achieved through utility connection estimates and/or census figures (or other survey techniques).

Examples indicators include:

- i. Population with access to a water supply with an active water safety plan
- ii. Population with access to reticulated centralised treated supply meeting regulated drinking water criteria

## 10. Population with access to sanitation

The term 'access to sanitation' implies consistency with the Millennium Development Goal (MDG) definition of access to improved sanitation including flush/pour flush to piped sewer system, septic tank or pit latrine; ventilated improved pit (VIP) latrine; pit latrine with slab or composting toilets (JMP 2010)<sup>7</sup>.

Increasing access to sanitation can be achieved through a combination of mechanisms, including installation of new sanitation systems or rehabilitation of failed systems. The GEF IWRM projects are reliant on both of these approaches. New demonstration composting toilets are being installed in Tuvalu and potentially RMI and Nauru. Demonstration secondary treatment systems are being installed in Tonga, Cook Islands and Nauru. Existing systems are being rehabilitated in Tonga through the re-establishment of a septic pump-out system and facilitation of septic system rehabilitation.

<sup>&</sup>lt;sup>5</sup> World Health Organization (2008). <u>Guidelines for Drinking Water Quality</u>. Geneva, WHO Press.

<sup>&</sup>lt;sup>6</sup> Bartram, J., L. Corrales, et al. (2009). <u>Water safety plan manual: step-by-step risk management for drinking-water suppliers</u>. Geneva, WHO Press.

<sup>&</sup>lt;sup>7</sup> WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (2010). <u>Progress on Sanitation and Drinkingwater</u>: 2010 Update. Geneva, WHO Press.

## Examples indicators include:

- i. Population with access to a improved sanitation
- ii. Population with septic tanks serviced by sludge pump-out trucks

## **Country Reporting**

Scorecard: Complete Target increase with access to safe supply / improved

sanitation

Mostly Complete 3/4 of target access achieved

Or

Where WSP is the target, completion of WSP without

budget allocation

Partially Complete 1/2 of target reduction and area achieved

Or

Strategy and funding in place, groundworks

commenced but not completed to deliver improvement

**Mostly Incomplete** Significant measurable increase in population with

access to improved sanitation / water supply

Or

Strategy and funding in place, groundworks not yet

commenced

Incomplete No significant measurable increase in population with

access to improved sanitation / water supply

## 30% increase in population with access to improved sanitation

The numbers of sanitation systems being installed under the GEF IWRM project are generally small. Tuvalu has the greatest number of toilets (40) being installed and these only represent about 5% of the Funafuti site houses.

Only two demonstration sites have identified significant rehabilitation of septic systems as part of their projects (Tonga and Nauru) and only Samoa has identified significant expansion of an existing system. Notably the wastewater treatment system in Samoa is dependent upon co-funding and largely beyond the control of the project.

As the number of toilets to be installed at other sites (RMI and Vanuatu) is limited, achieving the target of an average of 30% increase in population with access to improved sanitation will be strongly reliant on achieving this target at these sites.

## Regional Reporting

**Scorecard:** Complete Average 30% increase in population with access to safe

water supply and sanitation for 6 sites

Mostly Complete Average 20% increase in population with access to safe

water supply and sanitation for 6 sites or

Average 30% increase in population with access to safe

water supply and sanitation for 5 sites or

Average 30% increase in population with access to safe

water supply (or sanitation) for 6 sites and a 15%

increase in sanitation (or water supply) to a minimum of

4 sites

Partially Complete Average 15% increase in population with access to safe

water supply and sanitation for 6 sites or

Average 30% increase in population with access to safe

water supply and sanitation for 3 sites or

Average 30% increase in population with access to safe

water supply (or sanitation) for 4 sites and a 20%

increase in sanitation (or water supply) to a minimum of

2 sites

Mostly Incomplete Increase in population with access to safe water and

sanitation for at least 3 sites

Incomplete No significant increase in forested or protected areas

# <u>Baseline</u>

Site population defined at project commencement; or as close as possible in time. Population with access to safe water supply. Population with access to improves sanitation

Country		Indicator	Target	Means of Verification	Baseline
FSM	9	Population with access to safe water supply  Trigger is the setting (and meeting) of water quality and safety baselines for the Nett Watershed Forest Reserve/Nanpil River	☐ 90% of Kolonia with safe drinking water (5,000 people)	☐ Audit against baselines by independent auditor	☐ Catchment area ☐ Kolonia population ☐ number of households
Nauru	10	Population with access to improved sanitation Installation of septic tanks and secondary treatment systems in Ewa and Anetan Districts	☐ 10% increase in access to sanitation systems in Ewa and Anetan (1,100 people)	☐ Commissioning report on sanitation systems endorsed by Steering Committee	<ul> <li>□ Number of households</li> <li>□ Ewa and Anetan population</li> <li>□ Number of houses with improved sanitation</li> </ul>
Niue	9	Population with access to safe water supply WSP developed as part of co-funding. Delivery of WSP dependent upon project activities being delivered	90% of Alofi population (400 people)	☐ Audit of Niue WSP	☐ Catchment area ☐ Alofi population ☐ number of households
Palau	9	Population with access to safe water supply  Delivery of WSP dependent upon project activities being delivered	☐ 90% of Koror with safe drinking water (14,000 people)	☐ Audit of Koror WSP	☐ Catchment area ☐ Koror population ☐ number of households
RMI	9	Population with access to safe water supply Delivery of WSP dependent upon project activities being delivered  Population with access to improved sanitation Rehabilitation of septic systems and sludge disposal systems will ensure that systems meet improved requirements	<ul> <li>90% of Laura Village with safe drinking water (3,000 people)</li> <li>90% of Laura Village with access to sustainable sanitation (3,000 people)</li> </ul>	☐ Audit of Majuro WSP ☐ Report on completion of septic system rehabilitation endorsed by Laura Integrated Water and Land Management Advisory Committee	<ul> <li>□ Catchment area</li> <li>□ Number of households</li> <li>□ Laura population</li> <li>□ Number of sanitation systems maintained and satisfying 'improved sanitation' definition</li> </ul>
Samoa	10	Population with access to improved sanitation Based on commissioning of wastewater treatment plant as co-funded work	☐ 30% increase in Apia residents with access to improved sanitation (11,000 people)	☐ Commissioning of wastewater treatment plant	<ul><li>☐ Number of households</li><li>☐ Apia population</li><li>☐ Population serviced by WWTP</li></ul>
Solomon Islands	9	Population with access to safe water supply  Development and implementation of WSP for Honiara. Need to ascertain the proportion of Honiara covered by WSP	☐ Increase of 90% of Honiara residents with access to safe water (70,000 people)	☐ WSP endorsed by Minister with budget allocated	☐ Honiara population ☐ Number of households

Country		Indicator	Target	Means of Verification	Baseline
Tonga	9	Population with access to safe water supply  Household level WSP being developed and implemented in 30% of District households  Population with access to improved sanitation  Rehabilitation of septic systems and sludge disposal systems will ensure that systems meet improved requirements	□ 30% increase in access to safe water supplies in Neiafu (1,500 people) □ 90% increase in Neiafu residents with access to improved sanitation (4,500 people)	<ul> <li>□ Survey by Town Officers endorsed by Steering Committee</li> <li>□ Audit on proportion of houses using the pump-out facilities by end of project</li> </ul>	☐ Island area ☐ Number of households in Neiafu ☐ Number of households on Vava'u
Tuvalu	10	Population with access to improved sanitation Installation of composting toilets, supported by co-funded toilets	☐ 5% of Funafuti residents with access to improved sanitation (250 people)	☐ Commissioning study endorsed by Steering Committee	☐ Number of households ☐ Funafuti population
Vanuatu	9	Population with access to safe water supply  Delivery of WSP dependent upon project activities being delivered including relocation of intakes  Population with access to improved sanitation  Rehabilitation of septic systems and sludge disposal systems will ensure that systems meet improved requirements	☐ 90% increase in access to safe water supplies in Luganville (13,000 people) ☐ 2% increase in Sarakata watershed residents with access to improved sanitation (20 people)	<ul> <li>□ Survey by Town Officers endorsed by Steering Committee</li> <li>□ Audit on proportion of houses using the pump-out facilities by end of project</li> </ul>	☐ Watershed area ☐ Number of households

2 Basin Flood Risk Management Plans resulting in 10% reduction in infrastructure loss due to flooding (on approximately 18,000 ha of land) by end of project

## Proposed Indicator

The delivery of a flood risk management plan is a relatively straightforward outcome, incorporating flood planning and early warning and response components.

Clarification is however required on the 10% reduction in infrastructure loss due to flooding by the end of the project. Infrastructure loss is typically mitigated through changes to long-term planning and development strategies, rather than rapid fixes. Within the lifetime of the project the measures that reasonably could be taken to address infrastructure loss are limited to instigating a flood early warning system and incorporating floodplain management strategies into urban planning policies. However, flood early warning systems for flash floods typically provide only minimal mitigation of infrastructure loss [Scawthorn et al (2006)<sup>8</sup>] and floodplain planning strategies are unlikely to significantly influence on-ground construction significantly during the project life.

Given that there is a large uncertainty in estimating flood losses [Merz et al (2004)<sup>9</sup>], demonstration of a 10% reduction in infrastructure damage would be a highly theoretical and pointless exercise. Flood plain management strategies are likely to require many years to enable planning tools (such as regulations and town plans) to guide development. However, in real terms, incorporating flood mitigation strategies into planning strategies will certainly lead to significant reductions in infrastructure damage.

In terms of an early warning system, Barszczyńska et al (2006)<sup>10</sup> stated that a minimum early warning lead time of 30 minutes was required to save human life; with a threshold of one to two hours identified as the target, refined to reflect the local capacity to respond.

Based on the above, it is proposed instead that the target for this indicator be:

 2 Basin flood risk management plans incorporating changes to land use planning to reflect floodplains and an early flood warning system providing a minimum of one hour lead time (on approximately 18,000 ha of land) by end of project

## 11. Flood Risk Management Plan

Examples indicators include:

i. Flood Risk Management Plan endorsed by Cabinet/Minister

#### Area

The second aspect of this target, the area can simply be determined through GIS or another form of mapping for the catchment area covered by the flood risk management plan. In order for the target area to be met, it is critical that the Nadi Basin flood risk management plan be completed.

## An early warning system with minimum of one hour lead time

Assessing the lead time is based on the time available to community members to respond following them actually receiving the warning. There are numerous ways of delivering a warning at the community level, including sirens, loudspeakers; telephone messages and door-to-door responses. Examples of ways in which this criterion could be satisfied include:

<sup>8</sup> HAZUS-MH Flood Loss Estimation Methodology. II. Damage and Loss Assessment, Natural Hazards Review, Vol. 7, No. 2, May 1, 2006

<sup>&</sup>lt;sup>9</sup> Estimation uncertainty of direct monetary flood damage to buildings, Natural Hazards and Earth System Sciences (2004) 4: 153–163

 $<sup>^{10}</sup>$  In time for the Flood: A methodological guide to local flood warning systems, ISBN 83-88897-64-0

- i. Completion of a flood warning system providing at least one hours warning to all sectors (community, commerce and agriculture) – demonstrable through trials and application
- ii. Embedding the target within the flood risk management plan

## Country Reporting

Scorecard: Complete Flood Risk Management Plan with early warning system

endorsed by Cabinet with ongoing funding and

floodplain incorporated into planning

Mostly Complete Flood Risk Management Plan with early warning system

endorsed by Cabinet and floodplain incorporated into

planning

Partially Complete Flood Risk Management Plan or early warning system

endorsed by Cabinet

Mostly Incomplete Draft Flood Risk Management Plan completed and/or

components of early warning system

Incomplete No significant progress on Flood Risk Management

Plan or early warning system

Regional Reporting

Scorecard: Complete 2 flood risk management plans endorsed by the

Cabinet/Minister including changes to land use planning to reflect floodplains and an early flood warning system providing a minimum of one hour lead time covering an

area of 18,000 ha.

**Mostly Complete** Completion of 2 flood risk management plans with

changes to land use planning changes to land use planning to reflect floodplains and an early flood warning system providing a minimum of one hour lead

time

Mostly Incomplete

**Partially Complete** Changes to land use planning to reflect floodplains

and/or an early flood warning system providing a minimum of one hour lead time in 2 catchments Changes to land use planning to reflect floodplains and/or an early flood warning system providing a

minimum of one hour lead time in at least one

catchment

**Incomplete** No significant improvement in flood risk management

## Baseline

Catchment area defined.

Country	Indicator	Target	Means of Verification	Baseline
Fiji	11 Nadi Basin Integrated Flood Management Plan (45,000 ha)  Plan to incorporate early flood warning system to provide at least one hour warning and process for incorporating floodplains into planning regulations	Plan endorsed by Cabinet	Cabinet minutes	Catchment area
Vanuatu	11 Sarakata Basin Integrated Flood Management Plan (10,000 ha)  Plan to incorporate early flood warning system to provide at least one hour warning and process for incorporating floodplains into planning regulations	Plan endorsed by Cabinet	Cabinet minutes	Catchment area

# 4 SIDS have revised legislation in place to protect surface water quality by end of project

## Proposed Indicator

## 12. Revised legislation protecting water quality

In order to satisfy this target, it is necessary for legislation to be revised and enacted. Some clarification is required on the protection of water quality. This could either be interpreted explicitly – i.e. that legislation explicitly refers to protection of water quality; or implicitly, through the protection of a catchment, potentially for biodiversity or forestry reasons, which may in turn have direct water quality protection outcomes.

No indication is provided of the water quality outcomes (environmental or protection of human health). However, generally protection for one purpose will have beneficial impacts on the other, therefore legislated protection for the purpose of drinking water or ecological protection is considered as meeting this target.

## Examples indicators include:

- i. Declaration of water protection zones through legislation and/or regulation
- ii. Declaration of parks or reserves with limited development through legislation and/or regulation
- iii. New or revised water resources or water quality legislation

## **Country Reporting**

Scorecard:	Complete Mostly Complete	Revised legislation enacted and/or regulation gazetted Bill for revised legislation tabled in parliament/congress or draft regulations presented to Cabinet
	Partially Complete	Bill / Draft Regulations developed and consultation undertaken based on review of needs
	Mostly Incomplete	Study identifying legislation / regulations needs to protect surface water quality
	Incomplete	Legislation review not undertaken

## Regional Reporting

Scorecard:	Complete	4 SIDS have revised legislation in place to protect surface water quality
	Mostly Complete	3 SIDS have revised legislation in place to protect surface water
	Partially Complete	2 SIDS have revised legislation in place to protect surface water quality
	Mostly Incomplete	1 SID has revised legislation in place to protect surface water quality
	Incomplete	No SIDS have revised legislation in place to protect surface water quality

## Baseline

Existing legislation and regulations at start of project, identifying links to protection of water quality

Country	Indicator	Target	Means of Verification	Baseline
Cook Islands	12 Revised Legislation protecting surface water quality  Currently plans include Policy implementation. Need to clarify any legislative reviews/revision	☐ Legislation enacted by Parliament by mid-2013	☐ Parliamentary record	☐ Legislation and Regulations relating to surface water quality
FSM	12 Revised Legislation protecting surface water quality  Currently logframe only indicates tabling Bill with Cabinet – need to ensure that target is enactment of legislation	☐ Legislation enacted by Congress by mid-2013	□ Congress record	☐ Legislation and Regulations relating to surface water quality
Palau	12 Ngerikiil Watershed is legislated/regulated as protected area  Currently legislative changes for PES include in Logframe, but not for protection of water quality or legislative link for declaration of Ngerikiil Watershed	☐ Legislation enacted by Congress by mid-2013	□ Congress record	☐ Legislation and Regulations relating to surface water quality
PNG	12 Revised Legislation protecting surface water quality  Currently logframe only indicates tabling Bill with NEC – need to ensure that target is enactment of legislation	☐ Legislation enacted by NEC by mid-2013	□ NEC record	☐ Legislation and Regulations relating to surface water quality
Samoa	12 Legislation for Water Resource Management Identified in the logframe as part of delivery of plans	Legislation enacted by Parliament by end of 2012	☐ Parliamentary records	☐ Legislation and Regulations relating to surface water quality
Solomon Islands	12 Revised Legislation protecting surface water quality  Currently logframe only indicates tabling Bill with Cabinet – need to ensure that target is enactment of legislation	☐ Legislation enacted by Parliament	□ Parliamentary records	☐ Legislation and Regulations relating to surface water quality
Vanuatu	12 Revised Legislation protecting surface water quality  Currently logframe only mentions Gazettal of Water Protection Zones	☐ Legislation enacted by Parliament	☐ Parliamentary records	☐ Legislation and Regulations relating to surface water quality

30% reduction in use of freshwater for sanitation purposes due to eco-sanitation expansion in 1 demo site

#### Proposed Indicator

# 13. Reduction in use of freshwater for sanitation purposes due to ecosanitation expansion

Clarification is required on the interpretation of a 30% reduction in freshwater use. The demonstration projects are based on demonstrating approaches as a catalyst for change, rather than funding wholesale infrastructure changes. It is therefore considered that it is appropriate to interpret the 30% reduction in freshwater use to be at a household level, rather than across the whole community (something that would be ultimately realised should the approach be replicated). Notably at a household level, the reduction in water use for sanitation following the installation of a composting toilet is close to 100% (minor volumes will be used for hand-washing and toilet cleaning)

Whilst composting toilets may be trialled in three or more countries (Tuvalu, Nauru and Marshall Islands) it is Tuvalu where they form the core of the demonstration project. However, in Tuvalu, even at the household level, clarification is required on a 30% reduction in freshwater use. Average household water use during non-drought periods may be as high as 101 L/person/day (Dawe 2001)<sup>11</sup>. However, during a recent drought in Tuvalu, it is understood that many people with flush toilets simply stopped using them. With virtually no rain for several months during droughts, there is simply no water for flushing toilets and most people resort to open defecation (Lal et al 2006)<sup>12</sup>. Against this baseline a 30% reduction is not possible to demonstrate. Even long-term where composting toilets are installed in houses with no existing toilets, there is no baseline use. However, the value of eco-sanitation was evident – provision of improved sanitation where there would have been none.

The most appropriate means of confirming a 30% reduction in freshwater for sanitation purposes would be through a comparative survey of toilet use; either before and after installation of a composting toilet within the same household, or between houses with and without composting toilets.

# Examples indicators include:

- i. Comparison of water use for sanitation in house before and after installation of composting toilet under non-drought conditions
- ii. Comparison of water use for sanitation between similar households with and without composting toilets under non-drought conditions

The above indicators could be measured through surveys or use of diaries. The sensitive nature of the topic suggests that comparison of use within the same household before and after installation may be easier to accommodate.

<sup>&</sup>lt;sup>11</sup> Ed Burke (2001) An integrated approach to rainwater harvesting analysis using GIS and recommendations for roof-catchment legislation in Tuvalu, SOPAC Technical Report 290, Suva

<sup>&</sup>lt;sup>12</sup> Padma Lal, Kalesoma Saloa and Falealili Uila (2006) *Economics of liquid waste management in Funafuti, Tuvalu*, IWP-Pacific Technical Report (International Waters Project) no. 36. SPREP, Apia 31 p. ISBN: 978-982-04-0356-7

# Country / Regional Reporting

**Mostly Complete** 

Scorecard: Complete Average 30% reduction in household water use

achieved through installation of composting toilets Average 25% reduction in household water use

achieved through installation of composting toilets

\*Partially Complete\*\* Composting toilets installed in households as the only

toilets within the household, but no monitoring undertaken to assess reduction in freshwater use

*Mostly Incomplete* Composting toilets installed in houses, but flush toilets

continue to be used by some household members

Incomplete No composting toilets installed

## **Baseline**

Average household water use for sanitation prior to installation of composting toilets

Country	Indicator		Target Means of Verification			Baseline
Nauru	13 Reduction in use of freshwater for sanitation purposes due to composting toilet installation  Assumes that composting toilets will be trialled		30% reduction in household water use		Study endorsed by Steering Committee and RTAG	Average household water use for sanitation prior to installation of composting toilets
RMI	13 Reduction in use of freshwater for sanitation purposes due to composting toilet installation  Assumes that composting toilets will be trialled	□	30% reduction in household water use		Study endorsed by Steering Committee and RTAG	Average household water use for sanitation prior to installation of composting toilets
Tuvalu	13 Reduction in use of freshwater for sanitation purposes due to composting toilet expansion Requires study to assess the water savings		30% reduction in household water use		Study endorsed by Steering Committee and RTAG	Average household water use for sanitation prior to installation of composting toilets

Replication of technical and water use efficiency lessons from project applied in future national and project based activities by end of project

## Proposed Indicator(s)

# 14. Technical and water use efficiency lessons from project applied in future national and project based activities by end of project

Replication of technical and water use efficiency lessons can be driven by formal processes, such as development of Codes of Practice, or facilitated using informal processes, including guideline development and information transfer. The approach adopted for replication, development of a replication strategy and subsequent implementation, lends itself well to assessing this indicator against the replication strategy.

Other clear means of identifying replication is the expansion of existing projects through co-funding; reference to the project learnings in development of other projects/ national initiatives and replication of technical learnings on other islands from the demonstration project.

# Options include:

- Development of Code of Practice or Regulations incorporating technical lessons
- ii. Co-funding to expand the project
- iii. Clear references to lessons learned in framing the strategy of other projects
- iv. Replication of technology in other parts of the demonstration country

## **Country Reporting**

Scorecard:	Complete	Technical and water use efficiency lessons replicated nationally and/or on projects
	Mostly Complete	Replication strategy developed; lessons,
	Partially Complete	audiences and tools under development Replication strategy developed; lessons, audiences and tools identified
	Mostly Incomplete	Replication strategy developed, but lessons and audiences not identified
	Incomplete	Best practices not defined

## Regional Reporting

Scorecard:	Complete	Replication demonstrated in 12 countries
	Mostly Complete	Replication demonstrated in 9 countries
	Partially Complete	Replication demonstrated in 5 countries
	Mostly Incomplete	Replication demonstrated in up to 3 countries
	Incomplete	Replication not demonstrated in any countries

The baseline of this indicator may need to be established late in the project as application of lessons learned will often depend on the nature and applicability of the lessons. Baselines will relate directly to the replication and provide status of activities prior to replication (e.g. no composting toilets on Outer Islands of Tuvalu prior to the demonstration project or Code of Practice does not incorporate composting toilets).

Nb. The uncertain nature of the types of replication lessons in many countries means that demonstration of this target using the suggested approach will require review. It is proposed that this be undertaken through a process of one or more technical lesson replication reports, identifying the lessons and the means of replication. Review/ audit can then be provided by the RTAG or an independent auditor.

Country	Indicator		Target		Means of Verification		Baseline
Cook Islands	<ul> <li>14 Lessons learned incorporated into other project(s) and/or Regulations</li> <li>Likely to be delivered through the NZAid and/or EU Muri projects with uptake of the learnings from the household sanitation. Links</li> </ul>	demonstrated by end rep of project by	☐ Technical lesson replication report endorsed by RTAG or independent auditor		Initial project documents if written prior to GEF IWRM project Regulations or Codes prior to project commencement		
	need to be clearly identified to support audit.  Alternatively, outcomes from demonstration pilot may be incorporated into national or island-based regulations or Codes						p5,000
Fiji	14 Lessons learned incorporated into other project(s), catchment flood management plans and/or Regulations Likely to be delivered through the other catchment flood planning strategies such as the Ba, Sigatoka, Navua and Rewa Rivers.		Replication demonstrated by end of project	Technical lesson replication report endorsed by RTAG or independent auditor		Initial project documents if written prior to GEF IWRM project  Regulations or Codes prior to project commencement	
	Lessons that may be incorporated include communications, flood modelling and early warning systems.  Alternatively, outcomes from demonstration pilot may be incorporated into national or catchment-based regulations or						Status of flood management / EWS approaches in other catchments prior to applying project lessons
FSM	Codes		Replication	П	Tachnical Jaccon		. ,
FSIM	<ul> <li>14 Lessons learned incorporated into other States or other catchments on Pohnpei</li> <li>Likely to be delivered in Chuuk State through Output 1.5</li> <li>(Extension of examples of best practice and lessons learned from</li> </ul>		demonstrated by end of project		Technical lesson replication report endorsed by RTAG or independent auditor		Initial project documents if written prior to GEF IWRM project  Regulations or Codes prior to project commencement
	Nett Watershed in Chuuk State); although application of lessons learned from Component 2 [Protecting Fresh and Marine Water Quality (including grow low sakau demonstration plots; pig waste bio-gas demonstration; and pig waste dry litter demonstration)]						Status of waste and land management approaches in other catchments or States prior to applying project lessons
	Alternatively, outcomes from demonstration pilot may be incorporated into national or catchment-based regulations or Codes						,
Nauru	<ul><li>14 Lessons learned incorporated into other project(s) and/or Regulations</li><li>Likely to be delivered through the AusAid and/or other projects with</li></ul>		Replication demonstrated by end of project	replication report endorsed by RTAG or independent		Initial project documents if written prior to GEF IWRM project Regulations or Codes prior to	
	uptake of the learnings from the household sanitation. Links need to be clearly identified to support audit.				auditor		project commencement
	Alternatively, outcomes from demonstration pilot may be incorporated into national or island-based regulations or Codes						

Country	Indicator		Target		Means of Verification	Baseline
Niue	Lessons learned incorporated into other project(s) and/or Regulations  Likely to be delivered through the amendments to the Building Code and/or standards for waste, waste oil and/or agrochemicals management.	_	Replication demonstrated by end of project	_	Technical lesson replication report endorsed by RTAG or independent auditor	 Initial project documents if written prior to GEF IWRM project Regulations or Codes prior to project commencement
Palau	14 Lessons learned incorporated into other project(s) and/or Regulations  May be delivered through replication of the Payment for Ecosystem Services (PES) the AusAid and/or other projects with uptake of the learnings from the household sanitation. Links need to be clearly identified to support audit.  Alternatively, outcomes from demonstration pilot may be incorporated into national or island-based regulations or Codes		Replication demonstrated by end of project		Technical lesson replication report endorsed by RTAG or independent auditor	Initial project documents if written prior to GEF IWRM project Regulations or Codes prior to project commencement
PNG	14 Lessons learned incorporated into other project(s), catchment flood management plans and/or Regulations  May be delivered through the other catchment flood planning strategies. Lessons that may be incorporated include communications, flood modelling and early warning systems.  Alternatively, outcomes from demonstration pilot may be incorporated into national or catchment-based regulations or Codes		Replication demonstrated by end of project		Technical lesson replication report endorsed by RTAG or independent auditor	 Initial project documents if written prior to GEF IWRM project Regulations or Codes prior to project commencement Status of flood management / EWS approaches in other catchments prior to applying project lessons
RMI	Lessons learned incorporated into other project(s) and/or Regulations  May be delivered through replication of piggery waste management and composting, or composting toilets.  Alternatively, outcomes from demonstration pilot may be incorporated into national or island-based regulations or Codes		Replication demonstrated by end of project		Technical lesson replication report endorsed by RTAG or independent auditor	 Initial project documents if written prior to GEF IWRM project Regulations or Codes prior to project commencement
Samoa	14 Lessons learned incorporated into other project(s) and/or Regulations  May be delivered through national Water Safety Plan, or alternatively replication strategy (Output 0.1)		Replication demonstrated by end of project		Technical lesson replication report endorsed by RTAG or independent auditor	 Initial project documents if written prior to GEF IWRM project Regulations or Codes prior to project commencement

Country	Indicator	Target		Means of Verification		Baseline
Solomon Islands	Lessons learned incorporated into other project(s) and/or Regulations  Likely to be delivered through replication strategy (Output 1.5)	Replication demonstrated by end of project		Technical lesson replication report endorsed by RTAG or independent auditor		Initial project documents if written prior to GEF IWRM project Regulations or Codes prior to project commencement
Tonga	Lessons learned incorporated into other project(s) and/or Regulations     Likely to be delivered through replication strategy	Replication demonstrated by end of project		Technical lesson replication report endorsed by RTAG or independent auditor	0	Initial project documents if written prior to GEF IWRM project Regulations or Codes prior to project commencement
Tuvalu	Lessons learned incorporated into other project(s) and/or Regulations  Likely to be delivered through changes to Building Code of Practice and through replication strategy. Options likely to include replication of composting toilets on Outer Islands and incorporation into national Code	Replication demonstrated by end of project	П	Technical lesson replication report endorsed by RTAG or independent auditor		Initial project documents if written prior to GEF IWRM project Regulations or Codes prior to project commencement
Vanuatu	14 Lessons learned incorporated into other project(s) and/or Regulations  Likely to be delivered through implementation of best practice manuals (Output 3.4). Alternatively may also be delivered through replication of technology transfer to other catchments or development of regulations	Replication demonstrated by end of project		Technical lesson replication report endorsed by RTAG or independent auditor		Initial project documents if written prior to GEF IWRM project Regulations or Codes prior to project commencement

Technical, management, participatory and advocacy lessons from projects developed into national lessons learned presentation packages with mainstreaming into national and regional approaches by end of project facilitated by national IWRM APEX bodies, Project Steering Committee, Pacific Partnership, and PCU

Also

Replication Framework in place by June 2009, Replication Toolkit in place by end 2010, National scaling-up and replication strategies in place based on Demonstration project success and failures for each country by June 2013

## Proposed Target:

Technical, management, participatory and advocacy lessons from projects developed into national lessons learned presentation packages with mainstreaming into national and regional approaches by end of project.

Delays in the initiation of many projects, including recruitment of project managers, have meant that the interim timeframes were not achievable. The target has been reworded to reflect the outcome of the targets, rather than the details.

## Proposed Indicator(s)

# 15. National lessons learned presentation packages with mainstreaming into national and regional approaches by end of project

The mechanisms for delivering this may vary from country to country; however they will be strategically similar in terms of developing and implementing a replication strategy. It is important that the replication strategy address the facilitation roles and responsibilities of the IWRM APEX bodies, Project Steering Committee, Pacific Partnership and PCU.

#### Options include:

- i. Changes to legislation or regulation to incorporate project lessons this may be hard to demonstrate as a stand-alone indicator
- ii. Replication strategy developed and implemented to mainstream lessons learned

## **Country Reporting**

Scorecard: Complete Replication demonstrated by end of project

**Mostly Complete** National lessons learned presentation packages

with mainstreaming into national approach

**Partially Complete** Replication strategy developed; lessons,

audiences and tools identified

Mostly Incomplete Replication strategy developed, but lessons and

audiences not identified

**Incomplete** Best practices not defined

## Regional Reporting

Scorecard: Complete Replication demonstrated in 12 countries

Mostly CompleteReplication demonstrated in 9 countriesPartially CompleteReplication demonstrated in 5 countries

Mostly IncompleteReplication demonstrated in up to 3 countriesIncompleteReplication not demonstrated in any countries

The baseline of this indicator may need to be established late in the project as application of lessons learned will often depend on the nature and applicability of the lessons. Baselines will relate directly to the replication and provide status of activities prior to replication (e.g. separate steering committees for each international project in Cook Islands prior to the GEF IWRM project).

Nb. The uncertain nature of the types of replication lessons in many countries means that demonstration of this target using the suggested approach will require review. It is proposed that this be undertaken through a process of one or more technical lesson replication reports, identifying the lessons and the means of replication. Review/ audit can then be provided by the RTAG or an independent auditor.

Country	Indicator	Target	Means of Verification	Baseline
Cook Islands	15 Replication strategy developed and implemented to mainstream lessons learned	Replication demonstrated by end of project	Replication report endorsed by RTAG or independent auditor	Policies, Regulations or Codes prior to project commencement
	Replication strategy will need to reflect the roles and responsibilities in mainstreaming the lessons learned			
Fiji	15 Replication strategy developed and implemented to mainstream lessons learned	Replication demonstrated by end of project	Replication report endorsed by RTAG or independent auditor	Policies, Regulations or Codes prior to project commencement
	Replication strategy will need to reflect the roles and responsibilities in mainstreaming the lessons learned			
FSM	15 Replication strategy developed and implemented to mainstream lessons learned	Replication demonstrated by end of project	Replication report endorsed by RTAG or independent auditor	Policies, Regulations or Codes prior to project commencement
	Replication strategy will need to reflect the roles and responsibilities in mainstreaming the lessons learned			
Nauru	15 Replication strategy developed and implemented to mainstream lessons learned	Replication demonstrated by end of project	Replication report endorsed by RTAG or independent auditor	Policies, Regulations or Codes prior to project commencement
	Replication strategy will need to reflect the roles and responsibilities in mainstreaming the lessons learned			
Niue	15 Replication strategy developed and implemented to mainstream lessons learned	Replication demonstrated by end of project	Replication report endorsed by RTAG or independent auditor	Policies, Regulations or Codes prior to project commencement
	Replication strategy will need to reflect the roles and responsibilities in mainstreaming the lessons learned			

Country	Indicator		Target	Means of Verification	Baseline
Palau	15 Replication strategy developed and implemented to mainstream lessons learned		Replication demonstrated by end of project	Replication report endorsed by RTAG or independent auditor	Policies, Regulations or Codes prior to project commencement
	Replication strategy will need to reflect the roles and responsibilities in mainstreaming the lessons learned				
PNG	15 Replication strategy developed and implemented to mainstream lessons learned		Replication demonstrated by end of project	Replication report endorsed by RTAG or independent auditor	Policies, Regulations or Codes prior to project commencement
	Replication strategy will need to reflect the roles and responsibilities in mainstreaming the lessons learned				
RMI	15 Replication strategy developed and implemented to mainstream lessons learned		Replication demonstrated by end of project	Replication report endorsed by RTAG or independent auditor	Policies, Regulations or Codes prior to project commencement
	Replication strategy will need to reflect the roles and responsibilities in mainstreaming the lessons learned				
Samoa	15 Replication strategy developed and implemented to mainstream lessons learned		Replication demonstrated by end of project	Replication report endorsed by RTAG or independent auditor	Policies, Regulations or Codes prior to project commencement
	Replication strategy will need to reflect the roles and responsibilities in mainstreaming the lessons learned				
Solomon Islands	15 Replication strategy developed and implemented to mainstream lessons learned	0	Replication demonstrated by end of project	Replication report endorsed by RTAG or independent auditor	Policies, Regulations or Codes prior to project commencement
	Replication strategy will need to reflect the roles and responsibilities in mainstreaming the lessons learned				

Country	Indicator	Target	Means of Verification	Baseline
Tonga	15 Replication strategy developed and implemented to mainstream lessons learned	Replication demonstrated by end of project	Replication report endorsed by RTAG or independent auditor	Policies, Regulations or Codes prior to project commencement
	Replication strategy will need to reflect the roles and responsibilities in mainstreaming the lessons learned			
Tuvalu	15 Replication strategy developed and implemented to mainstream lessons learned	Replication demonstrated by end of project	Replication report endorsed by RTAG or independent auditor	Policies, Regulations or Codes prior to project commencement
	Replication strategy will need to reflect the roles and responsibilities in mainstreaming the lessons learned			
Vanuatu	15 Replication strategy developed and implemented to mainstream lessons learned	Replication demonstrated by end of project	Replication report endorsed by RTAG or independent auditor	Policies, Regulations or Codes prior to project commencement
	Replication strategy will need to reflect the roles and responsibilities in mainstreaming the lessons learned			

Indicator feedback facilitated through IWRM APEX Body provides information for multi-sectoral action and endorsement of national indicators for IWRM, NAPA, NAP and sustainable development planning (NSDSs and NEAPs) by end of project

Also

APEX body leading institutional training in consistent data collection and development of national monitoring rationale by end 2011 and national recruitment of support adviser to national APEX bodies by 2009

## **Proposed Target:**

National IWRM indicator framework established with formal reporting at a national level, facilitated by APEX body

The above target reflects the need to ensure that national indicators are embedded within core government reporting functions, reflected multi-sectorally. The role of the APEX body is highlighted in this process. Delivery of support to the APEX bodies has evolved from the initial project planning, and countries have typically linked this back to the project management unit, rather than engaging someone directly to the APEC body.

Delays in the initiation of many projects, including recruitment of project managers, have meant that the interim timeframes were not achievable. The target has been reworded to reflect the outcome of the targets, rather than the details.

## Proposed Indicator(s)

## 16. National IWRM indicator framework embedded in formal national reporting

The mechanisms for formally embedding the national IWRM indicator framework into national reporting are varied, including through national strategies such as the National Sustainable Development Strategy (NSDS); National Environmental Action Plan (NEAP); National Adaptation Programme of Action (NAPA) and National Action Plan (NAP) or reporting through national censuses and demographic health surveys.

The indicator framework should be developed through a consultative process, with clear indicators and targets, with reporting tools, timeframes and responsibilities clearly identified.

## Options include:

- i. Report outlining national indicator framework, with indicators, targets, reporting mechanisms, timeframes and responsibilities
- ii. Another mechanism for formally defining and endorsing a national indicator framework

The timing cycles of several reporting tools (such as the NAPAs and NSDSs) may mean that it is not logistically possible to incorporate all indicators within the project cycle (some reporting reviews are on three to five year cycles). Whilst it may not be possible to incorporate the indicators into these reports within the demonstration project cycle, endorsement of the report and framework (including reporting) at a Ministerial or Cabinet level would satisfy this requirement.

# Country Reporting

Scorecard: Complete National IWRM indicator framework embedded

in formal national reporting

Mostly Complete National IWRM indicator framework endorsed by

Minister/Cabinet; but reporting mechanisms not

identified

Partially Complete National IWRM indicator framework endorsed by

APEX body

Mostly Incomplete Draft National indicator framework developed for

consultation

Incomplete No significant progress on national indicator

framework

# Regional Reporting

**Scorecard:** Complete National indicator framework endorsed in 12

countries

**Mostly Complete** National indicator framework endorsed in 9

countries

Partially Complete National indicator framework endorsed in 5

countries

**Mostly Incomplete** National indicator framework endorsed in up to 3

countries

Incomplete National indicator framework not endorsed in

any countries

No baseline is required; although project review and reporting cycles should be determined.

Country	Indicator	Means of Verification	Baseline
Cook Islands	16 National IWRM indicator framework embedded in formal national reporting	☐ Endorsement by Minister	☐ None required
Fiji	16 National IWRM indicator framework embedded in formal national reporting	☐ Endorsement by Minister	□ None required
FSM	16 National IWRM indicator framework embedded in formal national reporting	☐ Endorsement by Minister	□ None required
Nauru	16 National IWRM indicator framework embedded in formal national reporting	☐ Endorsement by Minister	☐ None required
Niue	16 National IWRM indicator framework embedded in formal national reporting	☐ Endorsement by Minister	☐ None required
Palau	16 National IWRM indicator framework embedded in formal national reporting	☐ Endorsement by Minister	☐ None required
PNG	16 National IWRM indicator framework embedded in formal national reporting	☐ Endorsement by Minister	☐ None required
RMI	16 National IWRM indicator framework embedded in formal national reporting	☐ Endorsement by Minister	☐ None required
Samoa	16 National IWRM indicator framework embedded in formal national reporting	☐ Endorsement by Minister	☐ None required
Solomon	16 National IWRM indicator framework	☐ Endorsement by	□ None required

Country	Indicator	Means of Verification	Baseline
Islands	embedded in formal national reporting	Minister	
Tonga	16 National IWRM indicator framework embedded in formal national reporting	<ul><li>Endorsement by Minister</li></ul>	□ None required
Tuvalu	16 National IWRM indicator framework embedded in formal national reporting	<ul><li>Endorsement by Minister</li></ul>	□ None required
Vanuatu	16 National IWRM indicator framework embedded in formal national reporting	☐ Endorsement by Minister	□ None required

Increase in national staff (both men and women) across institutions with IWRM knowledge and experience by end of project

## Proposed Indicator(s)

## 17. National staff across institutions with IWRM knowledge and experience

Several options are available for assessing the progress against this target; however, it is critically important to asses the baseline as close as possible to the project commencement

## Options include:

- Survey of relevant staff not that this could be a particularly onerous approach and may be met with resistance by agencies not recognising the relevance.
   Note that this could be a targeted review, with only agencies and staff with likely experience and awareness targeted
- ii. Review of training records and staff records intensive for one or two staff members and potentially government human resources staff, although less disruptive across government
- iii. Targeted training combined with targeted surveys probably the most efficient mechanism for assessing government baseline knowledge and experience. The approach is that targeted training is associated with (short) surveys to both attendees and their managers the attendees to identify baseline knowledge and experience; the managers to identify other capacity within government

A secondary approach, where it is not possible to show a direct increase in national staff with IWRM knowledge and experience is to show a significant increase in formal and informal training in IWRM and direct work experience (through job descriptions) where there previously was none. Whilst this doesn't allow a numerical assessment against the proposed indicator, it is considered an acceptable proxy for this target.

## **Country Reporting**

Scorecard: Complete Increased national staff across institutions with

IWRM knowledge and experience

Partially Complete Increased national staff across institutions with

IWRM knowledge

**Incomplete** No significant increases in national staff with

IWRM knowledge and experience

Regional Reporting

Scorecard: Complete Increase in national staff with IWRM knowledge

and experience in 12 countries

Mostly Complete Increase in national staff with IWRM knowledge

and experience in 9 countries

Partially Complete Increase in national staff with IWRM knowledge

and experience in 5 countries

Mostly Incomplete Increase in national staff with IWRM knowledge

and experience in up to 3 countries

**Incomplete** No significant increases in national staff with

IWRM knowledge and experience

It is important that the baseline is established as near as possible to the project commencement. The baseline will be established through the same mechanism as the indicator (i.e. through survey, review of training staff records, targeted training combined with surveys or a review of training courses and job descriptions).

Country	Indicator	Means of Verification	Baseline
Cook Islands	17 National staff across institutions with IWRM knowledge and experience  Target is to show an increase in staff knowledge and experience, or by proxy through training and work roles	☐ National capacity report	<ul> <li>□ Survey of staff IWRM knowledge and experience</li> <li>□ Review of staff IWRM training and experience records</li> <li>□ Training surveys</li> <li>□ Review of IWRM training and job requirements</li> </ul>
Fiji	17 National staff across institutions with IWRM knowledge and experience  Target is to show an increase in staff knowledge and experience, or by proxy through training and work roles	□ National capacity report	□ Survey of staff IWRM knowledge and experience □ Review of staff IWRM training and experience records □ Training surveys □ Review of IWRM training and job requirements
FSM	17 National staff across institutions with IWRM knowledge and experience  Target is to show an increase in staff knowledge and experience, or by proxy through training and work roles	□ National capacity report	□ Survey of staff IWRM knowledge and experience □ Review of staff IWRM training and experience records □ Training surveys □ Review of IWRM training and job requirements
Nauru	17 National staff across institutions with IWRM knowledge and experience  Target is to show an increase in staff knowledge and experience, or by proxy through training and work roles	□ National capacity report	□ Survey of staff IWRM knowledge and experience □ Review of staff IWRM training and experience records □ Training surveys □ Review of IWRM training and job requirements
Niue	17 National staff across institutions with IWRM knowledge and experience  Target is to show an increase in staff knowledge and experience, or by proxy through training and work roles	□ National capacity report	□ Survey of staff IWRM knowledge and experience □ Review of staff IWRM training and experience records □ Training surveys □ Review of IWRM training and job requirements
Palau	National staff across institutions with IWRM knowledge and experience  Target is to show an increase in staff knowledge and experience, or by proxy through training and work roles	☐ National capacity report	□ Survey of staff IWRM knowledge and experience □ Review of staff IWRM training and experience records □ Training surveys □ Review of IWRM training and job requirements
PNG	17 National staff across institutions with IWRM knowledge and experience  Target is to show an increase in staff knowledge and experience, or by proxy through training and work roles	☐ National capacity report	□ Survey of staff IWRM knowledge and experience □ Review of staff IWRM training and experience records □ Training surveys □ Review of IWRM training and job requirements

Country	Indicator	Means of Verification	Baseline
RMI	National staff across institutions with IWRM knowledge and experience  Target is to show an increase in staff knowledge and experience, or by proxy through training and work roles	□ National capacity report	<ul> <li>□ Survey of staff IWRM knowledge and experience</li> <li>□ Review of staff IWRM training and experience records</li> <li>□ Training surveys</li> <li>□ Review of IWRM training and job requirements at project commencement</li> </ul>
Samoa	17 National staff across institutions with IWRM knowledge and experience  Target is to show an increase in staff knowledge and experience, or by proxy through training and work roles	■ National capacity report	<ul> <li>☐ Survey of staff IWRM knowledge and experience</li> <li>☐ Review of staff IWRM training and experience records</li> <li>☐ Training surveys</li> <li>☐ Review of IWRM training and job requirements at project commencement</li> </ul>
Solomon Islands	17 National staff across institutions with IWRM knowledge and experience  Target is to show an increase in staff knowledge and experience, or by proxy through training and work roles	☐ National capacity report	<ul> <li>□ Survey of staff IWRM knowledge and experience</li> <li>□ Review of staff IWRM training and experience records</li> <li>□ Training surveys</li> <li>□ Review of IWRM training and job requirements at project commencement</li> </ul>
Tonga	17 National staff across institutions with IWRM knowledge and experience  Target is to show an increase in staff knowledge and experience, or by proxy through training and work roles	☐ National capacity report	<ul> <li>☐ Survey of staff IWRM knowledge and experience</li> <li>☐ Review of staff IWRM training and experience records</li> <li>☐ Training surveys</li> <li>☐ Review of IWRM training and job requirements at project commencement</li> </ul>
Tuvalu	National staff across institutions with IWRM knowledge and experience  Target is to show an increase in staff knowledge and experience, or by proxy through training and work roles	□ National capacity report	<ul> <li>□ Survey of staff IWRM knowledge and experience</li> <li>□ Review of staff IWRM training and experience records</li> <li>□ Training surveys</li> <li>□ Review of IWRM training and job requirements at project commencement</li> </ul>
Vanuatu	17 National staff across institutions with IWRM knowledge and experience  Target is to show an increase in staff knowledge and experience, or by proxy through training and work roles	☐ National capacity report	<ul> <li>□ Survey of staff IWRM knowledge and experience</li> <li>□ Review of staff IWRM training and experience records</li> <li>□ Training surveys</li> <li>□ Review of IWRM training and job requirements at project commencement</li> </ul>

30% increase in gender balanced community and wider stakeholder engagement in water related issues by month 60

## Proposed Indicator(s)

## 18. Proportion of community engaged in water related issues

Engagement in water related issues cuts across a range of activities from the more passive forms such as information exchange to the more active such as collaborating or empowering. Whilst it is not practical to fully capture the complexity of these interactions, measuring increases in both passive and active engagement provides a general indication of the change in engagement.

The types of passive engagement that could be considered include meetings with information exchange such as community meetings with information exchange, demonstration sites, television shows, radio shows, school visits, etc. Types of meetings with active engagement would include community workshops where decisions are made, participatory projects, governance meetings, school tree plantings, etc.

## Country Reporting

Scorecard:	Complete	30% increase in gender balanced community
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and wider stakeholder awareness raising and

active engagement

*Mostly Complete* 30% increase in gender balanced community

and wider stakeholder awareness raising or active engagement and at least 15% in the other

Partially Complete 15% increase in gender balanced community

and wider stakeholder awareness raising and

active engagement

**Mostly Incomplete** Measurable increases in community and

stakeholder awareness raising and active

engagement

Incomplete No significant increases in community and

stakeholder awareness raising and active

engagement

## Regional Reporting

**Scorecard:** Complete 30% increase achieved in 12 countries

Mostly Incomplete

**Mostly Complete** 30% increase achieved in 9 countries

Partially Complete 15% increase in gender balanced community

and wider stakeholder awareness raising and active engagement achieved in 9 countries Measurable increases in community and

stakeholder awareness raising and active engagement in up to 3 countries

Incomplete No significant increases in community and

stakeholder awareness raising and active

engagement

The key aspect of establishing a baseline is the identification of the types of passive and active engagement to be considered for monitoring, based on key media. These indicators should then be incorporated into the project engagement strategy, so that data can be collected and reported.

An exa	mple might include:
Passiv	e:
	Number of attendees at community meetings with a focus on water issues (combination of number of attendees and meetings)
	Television coverage dedicated to water issues
Active:	
	Proportion of civil society and commerce represented on official government meetings
	Number of attendees at community workshops making decisions on water issues (combination of number of attendees and meetings)

Country	Indicator	Target	Means of Verification	Baseline
Cook Islands	Proportion of community     engaged in water related issues  Measure attendance at awareness raising activities and at activities with active engagement	<ul> <li>30% increases in attendance at awareness raising activities</li> <li>30% increase in active engagement activities</li> </ul>	☐ Engagement report endorsed by Steering Committee	Attendance at awareness raising activities and at activities with active engagement
Fiji	Proportion of community     engaged in water related issues  Measure attendance at awareness raising activities and at activities with active engagement	<ul> <li>30% increases in attendance at awareness raising activities</li> <li>30% increase in active engagement activities</li> </ul>	☐ Engagement report endorsed by Steering Committee	Attendance at awareness raising activities and at activities with active engagement
FSM	18 Proportion of community engaged in water related issues  Measure attendance at awareness raising activities and at activities with active engagement	□ 30% increases in attendance at awareness raising activities □ 30% increase in active engagement activities	☐ Engagement report endorsed by Steering Committee	Attendance at awareness raising activities and at activities with active engagement
Nauru	18 Proportion of community engaged in water related issues Measure attendance at awareness raising activities and at activities with active engagement	□ 30% increases in attendance at awareness raising activities □ 30% increase in active engagement activities	☐ Engagement report endorsed by Steering Committee	Attendance at awareness raising activities and at activities with active engagement
Niue	18 Proportion of community engaged in water related issues Measure attendance at awareness raising activities and at activities with active engagement	□ 30% increases in attendance at awareness raising activities □ 30% increase in active engagement activities	☐ Engagement report endorsed by Steering Committee	Attendance at awareness raising activities and at activities with active engagement
Palau	18 Proportion of community engaged in water related issues Measure attendance at awareness raising activities and at activities with active engagement	□ 30% increases in attendance at awareness raising activities □ 30% increase in active engagement activities	☐ Engagement report endorsed by Steering Committee	Attendance at awareness raising activities and at activities with active engagement
PNG	18 Proportion of community engaged in water related issues  Measure attendance at awareness raising activities and at activities with	<ul> <li>30% increases in attendance at awareness raising activities</li> <li>30% increase in active</li> </ul>	☐ Engagement report endorsed by Steering Committee	Attendance at awareness raising activities and at activities with active engagement

Country	Indicator	Target	Means of Verification	Baseline
	active engagement	engagement activities		
RMI	Proportion of community     engaged in water related issues  Measure attendance at awareness raising activities and at activities with active engagement	<ul> <li>□ 30% increases in attendance at awareness raising activities</li> <li>□ 30% increase in active engagement activities</li> </ul>	☐ Engagement report endorsed by Steering Committee	Attendance at awareness raising activities and at activities with active engagement
Samoa	Proportion of community     engaged in water related issues  Measure attendance at awareness raising activities and at activities with active engagement	<ul> <li>□ 30% increases in attendance at awareness raising activities</li> <li>□ 30% increase in active engagement activities</li> </ul>	☐ Engagement report endorsed by Steering Committee	Attendance at awareness raising activities and at activities with active engagement
Solomon Islands	Proportion of community     engaged in water related issues  Measure attendance at awareness raising activities and at activities with active engagement	<ul> <li>□ 30% increases in attendance at awareness raising activities</li> <li>□ 30% increase in active engagement activities</li> </ul>	☐ Engagement report endorsed by Steering Committee	☐ Attendance at awareness raising activities and at activities with active engagement
Tonga	18 Proportion of community engaged in water related issues  Measure attendance at awareness raising activities and at activities with active engagement	<ul> <li>□ 30% increases in attendance at awareness raising activities</li> <li>□ 30% increase in active engagement activities</li> </ul>	☐ Engagement report endorsed by Steering Committee	Attendance at awareness raising activities and at activities with active engagement
Tuvalu	18 Proportion of community engaged in water related issues Measure attendance at awareness raising activities and at activities with active engagement	□ 30% increases in attendance at awareness raising activities □ 30% increase in active engagement activities	☐ Engagement report endorsed by Steering Committee	Attendance at awareness raising activities and at activities with active engagement
Vanuatu	Proportion of community     engaged in water related issues  Measure attendance at awareness raising activities and at activities with active engagement	□ 30% increases in attendance at awareness raising activities □ 30% increase in active engagement activities	☐ Engagement report endorsed by Steering Committee	Attendance at awareness raising activities and at activities with active engagement

## Improved cross-sectoral communication by end of project

## **Proposed Target:**

Improved cross-sectoral communication <u>on water issues</u> by end of project.

The above target reflects the focus and scope of the GEF IWRM project.

## Proposed Indicator(s)

# 19. Sectors actively engaged in formal multilateral communication on water issues

Cross-sectoral communication consists of both formal and informal mechanisms and both are important to delivering IWRM outcomes. Informal communications (such as telephone conversations, informal meetings and discussions that occur outside of formal meetings) provide the context and detail around water issues, as well as developing working relationships. Formal communication provides a mechanism for decision-making and defining roles and responsibilities.

Whilst informal communication is important to mainstreaming IWRM, the Project Document<sup>13</sup> identified that currently countries are struggling with formal cross-sectoral communication. It is also recognised that bringing other sectors into the formal discussions should initiate broader informal discussions.

It is important to recognise that there are multiple levels at which communication occurs across sectors. Accordingly, the proposed indicator reflects the involvement of different sectors engaged on water issues at formal meetings at the national level and other formal multi-lateral meetings at senior government level. The meetings to be considered include:

	National APEX body
	National forums
	Project Steering Committees
	Formal project meetings
	Other formal national meetings on water issues
-+	a to be involved abould include, but not be limited to finance; or

Sectors to be involved should include, but not be limited to finance; education; health; commerce; tourism; fisheries; agriculture; utilities and environment

#### Country Reporting

Scorecard: Complete Increased cross-sectoral engagement in formal multi-lateral communication

Mostly Incomplete Strategy developed to increase cross-sectoral engagement in formal multi-lateral communication

Incomplete No significant increases in formal multi-lateral communication

United Nations Development Programme (2004). UNDP Project Document - Implementing Sustainable Water Resources and Wastewater Management in Pacific Island Countries. Bangkok, United Nations Development Programme: 216, ibid.

Regional Reporting

Scorecard: Complete Improved cross-sectoral communication in 13

countries

Mostly Complete Improved cross-sectoral communication in 9

countries

Partially Complete | Improved cross-sectoral communication in 5

countries

Mostly Incomplete Improved cross-sectoral communication in up to

3 countries

Improved cross-sectoral communication in not

demonstrated in any countries

Baseline will need to be established as early as possible in the project, identifying the engagement of different sectors in formal meetings on water.

Country	Indicator	Target	Means of Verification	Baseline
Cook Islands	19 Sectoral engagement in formal multilateral communication on water issues	☐ Increased engagement	Review of formal meetings endorsed by Steering Committee	☐ Sectors represented in formal meetings prior to project commencement
Fiji	19 Sectoral engagement in formal multilateral communication on water issues	☐ Increased engagement	Review of formal meetings endorsed by Steering Committee	☐ Sectors represented in formal meetings prior to project commencement
FSM	19 Sectoral engagement in formal multilateral communication on water issues	☐ Increased engagement	Review of formal meetings endorsed by Steering Committee	☐ Sectors represented in formal meetings prior to project commencement
Nauru	19 Sectoral engagement in formal multilateral communication on water issues	☐ Increased engagement	Review of formal meetings endorsed by Steering Committee	☐ Sectors represented in formal meetings prior to project commencement
Niue	19 Sectoral engagement in formal multilateral communication on water issues	☐ Increased engagement	Review of formal meetings endorsed by Steering Committee	☐ Sectors represented in formal meetings prior to project commencement
Palau	19 Sectoral engagement in formal multilateral communication on water issues	☐ Increased engagement	Review of formal meetings endorsed by Steering Committee	☐ Sectors represented in formal meetings prior to project commencement
PNG	19 Sectoral engagement in formal multilateral communication on water issues	☐ Increased engagement	Review of formal meetings endorsed by Steering Committee	☐ Sectors represented in formal meetings prior to project commencement
RMI	19 Sectoral engagement in formal multilateral communication on water issues	☐ Increased engagement	Review of formal meetings endorsed by Steering Committee	☐ Sectors represented in formal meetings prior to project commencement
Samoa	19 Sectoral engagement in formal multilateral communication on water issues	☐ Increased engagement	Review of formal meetings endorsed by Steering Committee	☐ Sectors represented in formal meetings prior to project commencement

Country	Indicator	Target	Means of Verification	Baseline
Solomon Islands	19 Sectoral engagement in formal multilateral communication on water issues	☐ Increased engagement	Review of formal meetings endorsed by Steering Committee	Sectors represented in formal meetings prior to project commencement
Tonga	19 Sectoral engagement in formal multilateral communication on water issues	☐ Increased engagement	Review of formal meetings endorsed by Steering Committee	Sectors represented in formal meetings prior to project commencement
Tuvalu	19 Sectoral engagement in formal multilateral communication on water issues	☐ Increased engagement	Review of formal meetings endorsed by Steering Committee	Sectors represented in formal meetings prior to project commencement
Vanuatu	19 Sectoral engagement in formal multilateral communication on water issues	☐ Increased engagement	Review of formal meetings endorsed by Steering Committee	Sectors represented in formal meetings prior to project commencement

# Water Safety Plans in place and enacted in 3 peri-rural and 2 urban areas

## Proposed Indicator(s)

# 20. Water Safety Plans in place and enacted

In order for the Water Safety Plan (WSP) to be effective it needs formal endorsement as government policy and budget to be implemented. Endorsement can typically be achieved by Ministerial endorsement; however, several options are available for identifying a budget allocation, including:

- i. Discrete budget line
- ii. Clear ability to break down budget and identify allocation
- iii. Legal mechanism to draw funds directly from another source (e.g. levy payments)

# **Country Reporting**

Scorecard: Complete WSP endorsed by Minister with budget

allocation

**Mostly Complete** WSP endorsed by Minister without budget

allocation

Partially Complete WSP completed including consultation and

endorsed by Steering Committee

Mostly Incomplete WSP under development

Incomplete Planning process not defined

Regional Reporting

Scorecard: Complete Water Safety Plans in place and enacted in 3

peri-rural and 2 urban areas

**Mostly Complete** Water Safety Plans in place and enacted at 4

sites (combination peri-rural and urban areas)

Partially Complete Water Safety Plans in place and enacted at 3

sites

Mostly Incomplete Water Safety Plans in place and enacted at one

or two sites

Incomplete No Water Safety plans enacted

Country	Indicator	Target	N	Means of Verification		Baseline
Niue	20 Water Safety Plans for Alofi North and Alofi South (peri-urban)	Plan implemented		Endorsement by Minister		None required
Palau	20 National Water Safety Plan (peri-urban)	Plan implemented		Endorsement by Minister		None required
RMI	20 Majuro Water Safety Plan (urban)	Plan implemented		Endorsement by Minister		None required
Samoa	20 Apia Water Safety Plan (urban)	Plan implemented		Endorsement by Minister	П	None required
Solomon Islands	20 Honiara Water Safety Plan (urban)	Plan implemented		Endorsement by Minister		None required

# Sustainable forest & land management practices established and trialled with landowners in 2 demo sites

# Proposed Indicator(s)

# 21. Sustainable forest & land management practices established and trialled with landowners

Relies on capacity to clearly identify that site is established and practices being trialled and then subsequently demonstrated or disseminated through publications or other education and training material.

# Options include:

- i. Establishment of demonstration site; confirmed by visits from people outside the project
- ii. Establishment and trial of approaches on a study sites; confirmed by publishing guidelines, codes, regulations, education and training material or similar based on site studies

# Country Reporting

Country Repo	rung	
Scorecard:	Complete	Sustainable forest & land management practices established and trialled with landowners; with demonstration at site or dissemination of practices
	Mostly Complete	Sustainable forest & land management practices established and trialled with landowners; demonstration aspects identified
	Partially Complete	Sustainable forest & land management practices established and trialled with landowners
	Mostly Incomplete	Land and practices identified for demonstration site; but on-ground works not completed
	Incomplete	No significant progress on sustainable forest and land management practices

	Incomplete	No significant progress on sustainable forest and land management practices
Regional Repo	<u>orting</u>	
Scorecard:	Complete	Sustainable forest & land management practices established and trialled with landowners in 2 demo sites
	Partially Complete	Sustainable forest & land management practices established and trialed with landowners at one demo site
	Incomplete	No demonstration sites established

Baseline to be established is that the demonstration site was not established prior to the project; or the site was established, but not operating as a demonstration site for the practices under review.

Country	Indicator	Target	Means of Verification	Baseline
Fiji	21 Sustainable forest & land management practices	Sustainable forestry site to be established in Nadi Basin upper	☐ Completion report endorsed by Steering Committee	Review of site practices prior to commissioning trial
	established and trialled with landowners	catchment	<ul><li>Development of guidelines; codes; best practice manual; etc</li></ul>	
FSM	21 Sustainable forest & land management practices	Low grow sakau and pig waste management site to be established in	☐ Completion report endorsed by Steering Committee	Review of site practices prior to commissioning trial
	established and trialled with landowners	Nanpil river catchment	<ul><li>Development of guidelines; codes; best practice manual; etc</li></ul>	
Palau	21 Sustainable forest & land management practices	One year trial of pollution reduction initiative at one market	☐ Completion report endorsed by Steering Committee	Review of site practices prior to commissioning trial
	established and trialled with landowners	garden/livestock area	<ul><li>Development of guidelines; codes; best practice manual; etc</li></ul>	
Vanuatu	21 Sustainable forest & land management practices	☐ Establishing 6 demonstration plots in the GTZ Forest Reserve and	☐ Completion report endorsed by Steering Committee	Review of site practices prior to commissioning trial
	established and trialled with landowners	demonstration plots in 4 communities (Fanafo, Monixhill, Nagar and Mango)	<ul> <li>Development of guidelines; codes; best practice manual; etc</li> </ul>	

40% reduction in GW and marine pollution discharge at 2 demo sites from sewage and manure and a 20% reduction in 2 urban/peri-urban areas

# Proposed Indicator(s)

# 22. Nitrogen pollution load discharged to groundwater and/or coastal waters from sewage and/or manure

Pollution reduction can be achieved through reducing the volume of wastewater discharge or improving the quality of the discharge. Assessing volume reduction against the target is relatively simple (assuming no significant change in wastewater quality); however treating wastewater often addresses different components of the waste. For example many nutrient reduction processes do not significantly reduce pathogens; whereas disinfection processes targeting pathogens generally do not reduce nutrients.

The primary pollutants to groundwater and coastal waters from sewage and manure tend to be organic matter, phosphorus, nitrogen and pathogens. Of these pollutants, nitrogen is commonly the most conservative and mobile pollutant in groundwater <sup>14</sup>. Phosphorus is commonly attenuated in organic soils, organic matter is often also captured close to the source and pathogens die relatively rapidly in groundwater. Accordingly, nitrogen reduction is potentially the best indicator of significant reduction in pollution discharged to groundwater. Given that organic matter and phosphorus are typically reduced with most processes that also remove nitrogen (usually through bacterial breakdown), nitrogen is considered a reasonable marker for this target.

Options for demonstrating nitrogen reductions in discharges include:

- i. Reduction in wastewater discharge volume
- ii. Reduction in nitrogen content of wastewater

#### Country Reporting

Scorecard: Complete Target reduction in sewage and/or manure pollution **Mostly Complete** 3/4 of target reduction achieved Partially Complete ½ of target reduction achieved Mostly Incomplete Significant measurable reduction in sewage and/or manure pollution Or Strategy and funding in place, but groundworks not completed to deliver reduction in pollution Incomplete No significant reduction in sewage or manure pollution

United States Environmental Protection Agency (1993). <u>Guidance Specifying Management Measures For Sources of Nonpoint Pollution in Coastal Waters</u> Washington, DC, United States Environmental Protection Agency.

# Regional Reporting

Complete 40% reduction achieved in 2 rural areas and Scorecard: 20% reduction achieved in 2 urban/peri-urban areas **Mostly Complete** 3 of 4 sites achieve: 40% reduction in 2 rural areas and 20% reduction in 2 urban/peri-urban areas Partially Complete 2 of 4 sites achieve: 40% reduction in rural areas and 20% reduction in urban/peri-urban areas 20% reduction achieved in 2 rural areas and 10% reduction achieved in 2 urban/peri-urban Mostly Incomplete 40% reduction achieved in a rural area or 20% reduction achieved in an urban/peri-urban area Or Measurable reduction in at least 3 sites Incomplete No significant reduction in wastewater discharges

Baseline information will be required for wastewater volume and current treatment processes.

# Assessing reduction

There are several reasonable estimation techniques for measuring reductions in wastewater volume, including:

☐ Source removal would eliminate 100% of wastewater discharges – this could be achieved through establishing centralised systems together with reuse or alternative disposal (there is obviously a need to ensure that the problem is not just shifted), water-free systems (such as composting toilets) or reuse

☐ Metering discharge – typically would use one or several representative systems as potentially expensive

Mechanisms for estimating pollution load reduction include:

☐ Direct measurement – ideal for assessing reduction; however likely to be expensive to collect and analyse adequate representative data

☐ Using estimates of pollution reduction from reliable sources. For example, rehabilitating a septic tank and implementing a sludge pump-out service would effectively improve the wastewater management from a cesspit style arrangement to a septic, effectively delivering a 20-30% reduction in pollution<sup>15</sup>.

15	lbid.

Country	Indicator	Target		Means of Verification	Baseline
Cook Islands	22 Nitrogen pollution discharged to groundwater and Muri Lagoon  Piggery waste pollution to lagoon should be eliminated in catchment through initiatives to move piggeries from adjacent to creeks and install bunding.  Reduction in sewage pollution is likely to be limited to a household level as pilot and partner projects unlikely to deliver sufficient reduction whole site during project lifetime  Note that if work undertaken by MoH with hotels in parallel with project, reduction may be achieved	90% reduction in nitrogen discharged to the lagoon from piggeries 35% reduction in nitrogen loads at a household level from household trials		Monitoring report endorsed by Steering Committee (Steering Committee minutes)	<ul> <li>□ Catchment area</li> <li>□ Number of households</li> <li>□ Groundwater monitoring adjacent to pilot sites</li> <li>□ Study to determine sources of pollutants into Muri Lagoon to apportion sources</li> </ul>
FSM	22 Nitrogen pollution from piggeries in Nett Watershed Piggery waste reduction achieved through dry litter waste management uptake and biogas generation	80% reduction in nitrogen pollution from piggery wastes at piggery demonstration sites	:	Study Reports endorsed by Steering Committee (Steering Committee minutes)	☐ Assessment of piggery waste generation from piggery
Nauru	22 Reduction in sewage pollution in Ewa and Anetan Communities  Can be assessed at a community level – likely to be close to this level of reduction across whole community if 50% achieved for each septic through secondary treatment	35% reduction in nitrogen pollution from sewage	9	Study report on demonstrations endorsed by Steering Committee (Steering Committee minutes)	☐ Catchment area ☐ Existing state of sanitation systems in demonstration site
Niue	22 Reduction in nitrogen pollution from piggery and sewage wastes in Niue groundwater catchment  Rehabilitation of failing septic systems will provide at least a 25% reduction in nitrogen pollution (significantly more if these are associated with irrigation beds)  Piggery waste reduction achieved through piggery effluent collection tanks. Nitrogen reduction through proportion of waste collected in effluent collection tanks	 25% reduction in nitrogen due to sewage pollution 80% reduction in nitrogen pollution from piggery waste at piggery demonstration sites	:	Study Reports endorsed by Steering Committee (Steering Committee minutes)	☐ Household septic tank survey ☐ Assessment of piggery waste generation from piggery

Country	Indicator	Target	Means of Verification	Baseline
RMI	Reduction in sewage pollution in Laura Community  Will need to be assessed at a household level as pilot and partner projects unlikely to deliver sufficient reduction over project lifetime	☐ 35% reduction in pollution from household trials	☐ Monitoring report endorsed by Steering Committee (Steering Committee minutes)	☐ Catchment area ☐ Number of households ☐ Groundwater monitoring adjacent to pilot sites
Tonga	Nitrogen pollution discharged to groundwater in Neiafu  Rehabilitation of septic systems and sludge disposal systems will reduce nitrogen discharge at a household level by 25%	□ 20% reduction in nitrogen discharged to groundwater  Equates to 80% Neiafu residents with access to septic pump-out (4,500 people)	☐ Survey by Town Officers endorsed by Steering Committee (Steering Committee minutes) ☐ Audit on proportion of houses using the pump-out facilities by end of project	☐ Island area ☐ Number of households in Neiafu ☐ Number of households on Vava'u
Tuvalu	22 Reduction in sewage pollution across Funafuti  Composting toilets should reduce nitrogen pollution discharged to groundwater by over 90% in demonstration households	☐ 5% reduction in sewage pollution over Funafuti	☐ Study report endorsed by Steering Committee (Steering Committee minutes)	☐ Island area ☐ Number of households
Vanuatu	22 Reduction in sewage pollution across Sarakata watershed Installation of composting toilets or other improved sanitation options, either directly through the project, or through associated works will cause a direct reduction in the nitrogen pollution into the surface waters	☐ 40% reduction in sewage pollution in Sarakata watershed	Study report endorsed by Steering Committee (Steering Committee minutes)	<ul><li>□ Watershed area</li><li>□ Number of households</li><li>□ Survey of existing sanitation systems</li></ul>

# 30% reduction in drinking water resources pollution discharge for 3 sites (including one country-scale)

# Proposed Indicator(s)

# 23. Reduction in drinking water source pollution

The sources of pollution to drinking water are many and varied across the demonstration sites, including piggeries, septics, solid waste, agricultural chemicals, waste oil and hazardous medical waste. Against this background, assessing a 30% reduction in pollution discharge is considered virtually impossible. However, at the sites listed in the following table, significant pollution reduction measures are to be implemented that would in many cases result in significant reductions in pollution discharges. It is considered reasonable to assume that if these are implemented, they would result in reductions in pollution discharges typically greater than 30% - in most cases, significantly more than 30%.

Notably, for any of these sites where pathogens are identified as the primary pollution source of concern to drinking water (likely in RMI, Palau and Niue), the proposed strategies to manage piggeries and/or sewage pollution will certainly guarantee a 30% reduction in pollution (typically measured in orders of magnitude). At sites where pathogens are the primary drinking water risk, direct measurements of pathogen concentrations (*E. coli* would provide an adequate indicator) may be one option for demonstrating pollution reduction. Due to their relatively short survival rates in the environment, pathogens are one of the few forms of direct condition monitoring that may demonstrate positive changes within the project timeframes. However caution should be exercised interpreting results given the highly variable nature of microbiological sampling, the strong influence of external drivers that affect concentrations (such as rainfall) and the significant number of environmental sources (birds in particular) in surface water catchments.

Accordingly, it is proposed that the indicator be a reduction in drinking water source pollution, with targets based on site specific stressors. Measuring the success against this target could be achieved through:

- i. Achievement of the proposed activities given that these activities will collectively provide the 30% reductions required
- ii. Independent review of the reductions in drinking water source pollution, either as a separate report, or as part of the development of a watershed management plan
- iii. Direct measurement of E. coli concentrations

# Country Reporting

-	<del></del>	
Scorecard:	Complete	Target reduction in drinking water source pollution
	Mostly Complete	<sup>2</sup> ⁄₃ of target reduction achieved
	Partially Complete	Stress reduction activities completed and significant measurable reduction in drinking water source pollution
	Mostly Incomplete	Strategy and funding in place, but groundworks not completed to deliver reduction in drinking water source pollution
	Incomplete	No significant reduction in drinking water source pollution

# Regional Reporting

Scorecard: Complete 30% reduction for 3 sites (including one country-

scale)

Mostly Complete30% reduction for 3 sitesPartially Complete30% reduction for 2 sitesMostly Incomplete30% reduction for one site

Incomplete Significant reductions not achieved at any sites

Baselines will need to be collected early into all projects, particularly those identifying surveys or water quality monitoring as the primary means of demonstrating reduction.

Country	Indicator		Means of Verification	Baseline
FSM	23 Reduction in pollution sources discharging into Nett Watershed  Activities to address key pollution sources include improving piggery management, regulation development and a Payment for Ecosystem services (PES) system.  Additionally, the source mapping will provide both a baseline and a lever for regulators and operators to improve practices.  It may be possible to determine source reduction simply from the original baseline mapping and the subsequent works in the catchment to report on progress.  Alternatively, the catchment management plan needs to clearly identify how initiatives will lead to this level	□ 30% reduction in sources discharging into Nett Watershed	<ul> <li>□ Report on progress endorsed by Steering Committee (Steering Committee minutes)</li> <li>□ Nett Watershed Forest Reserve Management Plan endorsed by Minister/Cabinet</li> </ul>	<ul> <li>□ Assessment of piggery waste generation from piggery</li> <li>□ Survey of catchment pollution sources</li> </ul>
Niue	23 Reduction in drinking water resources pollution discharge to drinking water sources at a national scale  Addressing the key risks identified in the project document removes most of the key risks to drinking water supplies; leaving only minor risks. As the nature of these risks varies, a direct 30% is not readily quantifiable; however, addressing risks from waste oil, hospital hazardous wastes, piggeries and agricultural chemicals as outlined in the logframe will almost entirely mitigate risks to drinking water sources. As such it is considered that it would have more than satisfied a 30% reduction criteria.	□ 30% reduction  Achieved through mitigation of:  - waste oil sources  - hospital hazardous wastes  - piggery waste  - agricultural chemicals	Reports endorsed by Steering Committee (Steering Committee minutes)	<ul> <li>☐ Uncontrolled waste oil disposal sites</li> <li>☐ Uncontrolled piggery waste sites</li> <li>☐ Survey of hospital waste practices</li> <li>☐ Groundwater quality assessment (agricultural chemicals and/or pathogens)</li> </ul>
Palau	23 Reduction in pollution sources discharging into Ngerikiil Watershed  Activities to address key pollution sources include buffer zones, developing best management practices, managing stormwater drains and a Payment for Ecosystem services (PES) system.  Additionally, the source mapping will provide both a baseline and a lever for regulators and operators to improve practices.  It may be possible to determine source reduction simply from the original baseline mapping and the subsequent works in the catchment to report on progress.  Alternatively, the catchment management plan needs to clearly identify how initiatives will lead to this level (or greater) of source reduction	□ 30% reduction in sources discharging into Ngerikiil	<ul> <li>□ Report on progress endorsed by Steering Committee (Steering Committee minutes)</li> <li>□ Ngerikiiil Catchment Water Management Plan endorsed by Minister/Cabinet</li> </ul>	□ Survey of catchment pollution sources □ Potentially water quality monitoring for pathogens

Country	Indicator		Means of Verification	Baseline
RMI	23 Reduction in pollution sources discharging into Laura groundwater  Activities to address key pollution sources include managing piggery waste, managing septic tanks, installation of composting toilets and managing solid waste.  Additionally, the source mapping will provide both a baseline and a lever for regulators and operators to improve practices. It may be possible to determine source reduction simply from the original baseline mapping and the subsequent works in the catchment to report on progress.  Alternatively, the catchment management plan needs to clearly identify how initiatives will lead to this level (or greater) of source reduction	□ 30% reduction in sources discharging into Laura groundwater	<ul> <li>□ Report on progress endorsed by Steering Committee (Steering Committee minutes)</li> <li>□ Sarakata Watershed Management Plan endorsed by Minister/Cabinet</li> </ul>	□ Laura groundwater catchment area □ Number of households □ Survey of catchment pollution sources □ Potentially water quality monitoring for pathogens
Vanuatu	23 Reduction in pollution across Sarakata watershed  Activities to address key pollution sources include developing best management practices, managing stormwater drains and a Payment for Ecosystem services (PES) system.  Additionally, the household survey will provide both a baseline and a lever for regulators and operators to improve practices. It may be possible to determine source reduction simply from the original baseline mapping and the subsequent works in the catchment to report on progress.  Alternatively, the Sarakata Watershed Management Plan needs to clearly identify how initiatives will lead to this level (or greater) of source reduction	□ 30% reduction in sources discharging into Sarakata watershed	<ul> <li>□ Report on progress endorsed by Steering Committee (Steering Committee minutes)</li> <li>□ Sarakata Watershed Management Plan endorsed by Minister/Cabinet</li> </ul>	<ul> <li>□ Watershed area</li> <li>□ Number of households</li> <li>□ Survey of existing sanitation systems</li> </ul>

#### A Catchment Council established in 2 SIDS

# Proposed Indicator(s)

#### 24. Catchment Council established

Relies on endorsement at the relevant level, such as Ministerial decree or similar. A council without this level of endorsement is unlikely to have sufficient authority to guide water governance. Similarly, a delegated financial allocation is required to enable the Council to function.

The definition of 'Council' may vary significantly, but needs to reflect governance at the catchment level. Accordingly, it would be necessary for there to be local community, government and commerce representation on the Council for this criterion to be satisfied.

Options for the financial allocation include:

- i. Discrete budget line
- ii. Levy collection and allocation

Note that funding from government agency budget funding, without a discrete budget line is considered less stable than a directly funded council as it relies on ongoing agency priorities, rather than a transparent budget allocation.

# Country Reporting

Scorecard:	Complete	Catchment Council established with financial allocation (such as budget line or levy)
	Mostly Complete	Catchment Council established, funded from government agency budget
	Partially Complete	Catchment Council established with formal delegation but without financial allocation
	Mostly Incomplete	Catchment Council operating, but without formal Ministerial or legislative delegation
	Incomplete	No Catchment Council in place

# Regional Reporting

Scorecard:	Complete	Catchment Councils established in 2 countries with financial allocation (such as budget line or levy)
	Mostly Complete	Catchment Councils established in 2 countries with financial allocation in one (such as budget line or levy)
	Partially Complete	Catchment Councils established in 2 countries without financial allocation or established in one country with financial allocation
	Mostly Incomplete	Catchment Council established in on country without financial allocation
	Incomplete	Catchment Council not established

Country	Indicator	Target	Means of Verification	Baseline
Fiji	24 Nadi Basin Catchment Committee Established	☐ Committee Established ☐ Budget allocated	<ul><li>Endorsement by Minister or legislation passed or similar</li><li>National Budget</li></ul>	□ None required
FSM	24 Nett Catchment Committee Established	☐ Committee Established ☐ Budget allocated	<ul><li>Endorsement by Minister or legislation passed or similar</li><li>National Budget</li></ul>	□ None required
Palau	24 Ngerikiil Community Catchment Committee Established	☐ Committee Established ☐ Budget allocated	<ul><li>Endorsement by Minister or legislation passed or similar</li><li>National Budget</li></ul>	□ None required
RMI	24 Laura Lens Laura Integrated Water and Land Management Advisory Committee	☐ Committee Established ☐ Budget allocated	<ul><li>Endorsement by Minister or legislation passed or similar</li><li>National Budget</li></ul>	□ None required
Vanuatu	24 Sanma Water Advisory Committee Established	☐ Committee Established ☐ Budget allocated	<ul><li>Endorsement by Minister or legislation passed or similar</li><li>National Budget</li></ul>	□ None required

# 50% increase in community engagement with National Government in 3 SIDS

# **Proposed Target:**

50% increase in community engagement with National Government on water issues in 3 SIDS

# Proposed Indicator(s)

# 25. Increase in community engagement with National Government on water issues

Community engagement occurs across multiple levels, from awareness raising through to direct involvement in decision-making. In order for this indicator to be meaningful, it needs to relate to engagement that influences governance. The opportunities for the community to engage directly with national government include national committees, national forums and representation on governance committees.

Measuring achievement against this indicator can be relatively straightforward, with the number of community representatives on formal national committees and forums, governance bodies with direct engagement of national government and community representatives and advisory bodies that formally report to Ministers or Cabinet engagement with national government on water issues limited.

### Country Reporting

Scorecard: Complete Target increase in community engagement

**Mostly Incomplete** Measurable increase in community engagement

**Incomplete** No significant increase in community

engagement

**Regional Reporting** 

**Scorecard:** Complete 50% increase in 3 SIDS

Mostly Complete 30% increase in 3 SIDS

Partially Complete 2% increase in 2 SIDS

Mostly Incomplete 25% increase in one SIDS

**Incomplete** No significant increase

Baseline will need to identify existing national committees and forums, governance bodies with direct engagement of national government and community representatives and advisory bodies that formally report to Ministers or Cabinet. The need to establish baselines early is critical.

Country	Indicator	Target	Means of Verification	Baseline
Nauru	25 Community engagement with National Government	□ 50% increase	Review of formal national committees and forums endorsed by Project Steering Committee	☐ Community representative membership or formal participation in formal national committees or forums prior to project commencement
RMI	25 Community engagement with National Government	□ 50% increase	Review of formal national committees and forums endorsed by Project Steering Committee	Community representative membership or formal participation in formal national committees or forums prior to project commencement
Tuvalu	25 Community engagement with National Government	□ 50% increase	Review of formal national committees and forums endorsed by Project Steering Committee	Community representative membership or formal participation in formal national committees or forums prior to project commencement

#### National effluent standards reached for wastewater treatment at 3 sites

# Proposed Indicator(s)

#### 26. National effluent standards reached for wastewater treatment

There are generally four ways in which national effluent standards are applied, namely by:

- i. Setting numeric criteria for discharge
- ii. Setting treatment criteria based on processes
- iii. Setting discharge criteria through permits/licenses, typically with conditions relating to treatment, numeric criteria, location and/or timing
- iv. A combination of any of the above

Given the potentially broad range of effluent standards and permit conditions, there is no single fit to meeting criteria, but rather the need to review performance against the relevant criteria. This can be done by the relevant regulatory body, or where appropriate, through an independent auditor.

# **Country Reporting**

Scorecard:	Complete	National effluent standards reached for wastewater treatment
	Mostly Complete	National effluent standards substantively met wastewater treatment with minor (non-significant) breaches
	Partially Complete	National effluent standards substantively met but with restrictive conditions
	Mostly Incomplete	National standards defined; works undertaken, but unable to meet standards
	Incomplete	No national standards defined
Regional Rep	orting	
Scorecard:	Complete	National effluent standards reached at 3 sites
	Partially Complete	National effluent standards reached at 2 sites
	Mostly Incomplete	National effluent standards reached at 1 site
	Incomplete	National effluent standards not reached at any site

No Baseline is required; however national effluent standards need to be clearly identified.

Country	Indicator	Target	Means of Verification	Baseline
Cook Islands	26 Wastewater discharge from demonstration sites meet national effluent standards  Discharge meets Public Health (Sewage) Regulations 2008 or revised regulations	☐ Regulations met	☐ Audit of demonstration system performance against national effluent standards endorsed by Steering Committee	□ None required
FSM	Wastewater discharge from demonstration sites meet national effluent standards  Discharge meets national effluent standards	□ Regulations met	☐ Audit of demonstration system performance against national effluent standards endorsed by Steering Committee	□ None required
Nauru	Wastewater discharge from demonstration sites meet national effluent standards  Need to develop national effluent standards	□ Regulations met	☐ Audit of demonstration system performance against national effluent standards endorsed by Steering Committee	□ None required
Niue	Wastewater discharge from demonstration sites meet national effluent standards  Need to develop national effluent standards	□ Regulations met	☐ Audit of demonstration system performance against national effluent standards endorsed by Steering Committee	□ None required
RMI	26 Wastewater discharge from demonstration sites meet national effluent standards  Discharge meets RMIEPA Toilet Facilities and Sewage Disposal Regulations 1990 or revised regulations	□ Regulations met	☐ Audit of demonstration system performance against national effluent standards endorsed by Steering Committee	□ None required

# 20% increase in water storage facilities at 1 demo site

# Proposed Indicator(s)

# 27. Water supply storage

Relies on installation of additional storage in Niue.

# **Country Reporting**

**Scorecard:** Complete Target increase in water supply storage

Mostly Complete <sup>2</sup>/<sub>3</sub> of target increase achieved Partially Complete <sup>1</sup>/<sub>2</sub> of target increase achieved

Mostly IncompleteMeasurable increase in water storage facilityIncompleteNo significant increase in water storage facility

# Regional Reporting

**Scorecard:** Complete 20% increase in water storage facilities at 1

demo site

Partially Complete Significant increase in water storage facilities at

1 demo site

**Incomplete** No increase in water storage

Baseline of existing storage at the project commencement will required.

Country	Indicator	Target	Means of Verification	Baseline
Niue	27 Water supply storage New Storage Tank at Fou, Alofi North	20% increase	Commissioning report endorsed by Steering Committee	Alofi North water storage capacity

Draft regional Indicator Framework developed for consultation by June 2010 and countries fully utilizing Indicator Framework by December 2011

### Proposed Target:

Draft regional Indicator framework developed and fully utilizing Indicator Framework by December 2012

The change in timeframe reflects the delays to start-up in many projects, with many projects not recruiting project managers until the 3<sup>rd</sup> and 4<sup>th</sup> quarters of Year 1; followed by changes to logframes to reflect the changed environment during the lag between project scoping and implementation.

The focus solely on the implementation of the framework (rather than the timing of the draft for consultation) reflects a focus on getting the framework implemented and mainstreamed into countries.

### Proposed Indicator(s)

28. Regional indicator framework endorsed by Regional Steering Committee and national indicator frameworks endorsed by relevant Cabinets or Ministers

Endorsement of the regional indicator framework and national indicator frameworks is fairly straightforward to assess. Whilst it is preferable that the framework is endorsed as a single approach, due to the combination of reporting strategies that may be adopted (such as Demographic Health Survey, Census and National Sustainable Development Plans), it may be practical at a national level for the components to be endorsed separately.

# Country Reporting

Scorecard:	Complete	National indicator framework endorsed by Minister/Cabinet and reporting mechanisms identified and funded
	Mostly Complete	National indicator framework endorsed by Minister/Cabinet; responsible agencies identified, but reporting unfunded
	Partially Complete	National indicator framework endorsed by APEX body
	Mostly Incomplete	National indicator framework under development, including consultation
	Incomplete	No Catchment Council in place

#### Regional Reporting

Scorecard: Complete
Indicator framework endorsed by Steering
Committee and national indicator framework
endorsed in 13 countries
Indicator framework endorsed by Steering
Committee and national indicator framework

endorsed in 9 countries

Partially Complete Indicator framework endorsed by Steering

Committee and national indicator framework

endorsed in 7 countries

Mostly Incomplete

Indicator framework endorsed by Steering Committee and national indicator framework

endorsed in 3 countries

Incomplete Regional indicator framework not endorsed

Country	Indicator	Target	Means of Verification	Baseline
Regionally	28 Regional Indicator Framework implemented	<ul><li>Endorsed by Regional Steering Committee</li></ul>	☐ RSC Minutes	□ None required
Cook Islands	28 National indicator framework implemented	☐ Indicators incorporated into national reporting	☐ Endorsement by Cabinet (Cabinet Minutes)	□ None required
Fiji	28 National indicator framework implemented	☐ Indicators incorporated into national reporting	☐ Endorsement by Cabinet (Cabinet Minutes)	□ None required
FSM	28 National indicator framework implemented	☐ Indicators incorporated into national reporting	☐ Endorsement by Cabinet (Cabinet Minutes)	□ None required
Nauru	28 National indicator framework implemented	<ul> <li>Indicators incorporated into national reporting</li> </ul>	☐ Endorsement by Cabinet (Cabinet Minutes)	□ None required
Niue	28 National indicator framework implemented	☐ Indicators incorporated into national reporting	☐ Endorsement by Cabinet (Cabinet Minutes)	□ None required
Palau	28 National indicator framework implemented	☐ Indicators incorporated into national reporting	☐ Endorsement by Cabinet (Cabinet Minutes)	□ None required
PNG	28 National indicator framework implemented	<ul><li>Indicators incorporated into national reporting</li></ul>	☐ Endorsement by Cabinet (Cabinet Minutes)	□ None required
RMI	28 National indicator framework implemented	<ul><li>Indicators incorporated into national reporting</li></ul>	☐ Endorsement by Cabinet (Cabinet Minutes)	□ None required
Samoa	28 National indicator framework implemented	<ul><li>Indicators incorporated into national reporting</li></ul>	☐ Endorsement by Cabinet (Cabinet Minutes)	□ None required
Solomon Islands	28 National indicator framework implemented	<ul><li>Indicators incorporated into national reporting</li></ul>	☐ Endorsement by Cabinet (Cabinet Minutes)	□ None required
Tonga	28 National indicator framework implemented	☐ Indicators incorporated into national reporting	☐ Endorsement by Cabinet (Cabinet Minutes)	□ None required
Tuvalu	28 National indicator framework implemented	☐ Indicators incorporated into national reporting	☐ Endorsement by Cabinet (Cabinet Minutes)	□ None required
Vanuatu	28 National indicator framework implemented	☐ Indicators incorporated into national reporting	☐ Endorsement by Cabinet (Cabinet Minutes)	□ None required

Stakeholder consultation and approval of project design and PM&E plan for each national demonstration project by August 2009, including separate consultations with women

# Proposed Indicator(s)

# 29. Project design and PM&E plan endorsed by Project Steering Committee

Relatively straightforward to confirm through Project Steering Committee (PSC) minutes, although requires stakeholder consultation and, in particular, consultations with women. Options for demonstrating the consideration of stakeholder consultation include:

- i. Consultation report outlining consultation process and participants, including separate consultations with women
- ii. Identification of stakeholder consultations as part of PM&E plan, including separate consultations with women

Ideally, the issues raised as part of the consultation process and the response to it should be identified in the consultation report.

# **Country Reporting**

Scorecard:	Complete	Project design and PM&E plan endorsed by PSC with consultation clearly identified
	Mostly Complete	Project design and PM&E plan endorsed by PSC with consultation undertaken, but not clearly identified
	Partially Complete	Project design and PM&E plan endorsed by PSC
	Mostly Incomplete	Project design and PM&E plan under development, including consultation
	Incomplete	No progress on project design and PM&E plan

# Regional Reporting

Scorecard:	Complete	Project design and PM&E plan endorsed with consultation clearly identified in 13 countries
	Mostly Complete	Project design and PM&E plan endorsed with consultation clearly identified in 9 countries
	Partially Complete	Project design and PM&E plan endorsed in 7 countries
	Mostly Incomplete	Project design and PM&E plan endorsed in up to 4 countries
	Incomplete	No project designs or PM&E plans

Country	Indicator	Target	Means of Verification	Baseline
Cook Islands	29 Project design and PM&E plan implemented	☐ Project and PM&E plan implemented by August 2011	☐ Endorsed by Project Steering Committee	☐ None required
		☐ Consultation report		
Fiji	29 Project design and PM&E plan implemented	☐ Project and PM&E plan implemented by August 2011	☐ Endorsed by Project Steering Committee	☐ None required
		☐ Consultation report		
FSM	29 Project design and PM&E plan implemented	Project and PM&E plan implemented by August 2011	☐ Endorsed by Project Steering Committee	☐ None required
		☐ Consultation report		
Nauru	29 Project design and PM&E plan implemented	☐ Project and PM&E plan implemented by August 2011	☐ Endorsed by Project Steering Committee	□ None required
		☐ Consultation report		
Niue	29 Project design and PM&E plan implemented	☐ Project and PM&E plan implemented by August 2011	☐ Endorsed by Project Steering Committee	☐ None required
		☐ Consultation report		
Palau	29 Project design and PM&E plan implemented	☐ Project and PM&E plan implemented by August 2011	☐ Endorsed by Project Steering Committee	□ None required
		☐ Consultation report		
PNG	29 Project design and PM&E plan implemented	Project and PM&E plan implemented by August 2011	☐ Endorsed by Project Steering Committee	☐ None required
		☐ Consultation report		
RMI	29 Project design and PM&E plan implemented	Project and PM&E plan implemented by August 2011	☐ Endorsed by Project Steering Committee	□ None required
		☐ Consultation report		
Samoa	29 Project design and PM&E plan implemented	Project and PM&E plan implemented by August 2011	☐ Endorsed by Project Steering Committee	□ None required
		☐ Consultation report		

Country	Indicator	Target	Means of Verification	Baseline
Solomon Islands	29 Project design and PM&E plan implemented	Project and PM&E plan implemented by August 2011	☐ Endorsed by Project Steering Committee	☐ None required
		☐ Consultation report		
Tonga	29 Project design and PM&E plan implemented	☐ Project and PM&E plan implemented by August 2011	☐ Endorsed by Project Steering Committee	■ None required
		☐ Consultation report		
Tuvalu	29 Project design and PM&E plan implemented	Project and PM&E plan implemented by August 2011	☐ Endorsed by Project Steering Committee	☐ None required
		☐ Consultation report		
Vanuatu	29 Project design and PM&E plan implemented	Project and PM&E plan implemented by August 2011	☐ Endorsed by Project Steering Committee	☐ None required
		☐ Consultation report		

National promotion and adoption of PM&E approaches by national water APEX body by end 2011 using Most Significant Change (MSC) and reflection and learning techniques

#### **Proposed Target:**

National promotion and adoption of PM&E approaches by national water APEX body by July 2012 using Most Significant Change (MSC) and reflection and learning techniques

The timeframes between the original planning and the project implementation has meant that projects needed to be re-scoped, delaying this process. It is suggested that the RTAG consider revising the date for delivery.

# Proposed Indicator(s)

# 30. National adoption of PM&E approaches implemented

It is implied within this target that MSC and reflection and learning techniques will form a central role in the national PM&E approaches.

The achievement of this target could be demonstrated by:

- i. Incorporation of PM&E, MSC and reflection and learning into national monitoring programmes for national indicators
- ii. Running national PM&E workshops to facilitate PM&E uptake
- iii. Incorporating MSC and reflection and learning techniques into periodic APEX reviews

#### Country Reporting

Scorecard:	Complete	PM&E approach implemented by APEX body
	Mostly Complete	PM&E approach endorsed by APEX body with budget allocation
	Partially Complete	PM&E approach endorsed by APEX body
	Mostly Incomplete	PM&E approach under development, including consultation

# Incomplete No Catchment Council in place

# Regional Reporting

Scorecard:	Complete	PM&E approach implemented by APEX body in 13 countries
	Mostly Complete	PM&E approach implemented by APEX body in 9 countries
	Partially Complete	PM&E approach implemented by APEX body in 7 countries
	Mostly Incomplete	PM&E approach implemented by APEX body in up to 3 countries
	Incomplete	PM&E approach not implemented by any APEX body

Country	Indicator	Target	Means of Verification	Baseline
Cook Islands	30 National adoption of PM&E approaches implemented Incorporating MSC and reflection and learning techniques	☐ Implemented by July 2012	☐ Endorsement by APEX body (APEX body minutes)	□ None required
Fiji	30 National adoption of PM&E approaches implemented Incorporating MSC and reflection and learning techniques	☐ Implemented by July 2012	☐ Endorsement by APEX body (APEX body minutes)	□ None required
FSM	30 National adoption of PM&E approaches implemented Incorporating MSC and reflection and learning techniques	☐ Implemented by July 2012	☐ Endorsement by APEX body (APEX body minutes)	□ None required
Nauru	30 National adoption of PM&E approaches implemented Incorporating MSC and reflection and learning techniques	☐ Implemented by July 2012	☐ Endorsement by APEX body (APEX body minutes)	□ None required
Niue	30 National adoption of PM&E approaches implemented Incorporating MSC and reflection and learning techniques	☐ Implemented by July 2012	☐ Endorsement by APEX body (APEX body minutes)	☐ None required
Palau	30 National adoption of PM&E approaches implemented Incorporating MSC and reflection and learning techniques	☐ Implemented by July 2012	☐ Endorsement by APEX body (APEX body minutes)	□ None required
PNG	30 National adoption of PM&E approaches implemented Incorporating MSC and reflection and learning techniques	☐ Implemented by July 2012	☐ Endorsement by APEX body (APEX body minutes)	□ None required
RMI	30 National adoption of PM&E approaches implemented Incorporating MSC and reflection and learning	☐ Implemented by July 2012	☐ Endorsement by APEX body (APEX body minutes)	☐ None required

Country	Indicator	Target	Means of Verification	Baseline
	techniques			
Samoa	30 National adoption of PM&E approaches implemented	☐ Implemented by July 2012	☐ Endorsement by APEX body (APEX body minutes)	□ None required
	Incorporating MSC and reflection and learning techniques			
Solomon Islands	30 National adoption of PM&E approaches implemented	☐ Implemented by July 2012	☐ Endorsement by APEX body (APEX body minutes)	□ None required
	Incorporating MSC and reflection and learning techniques			
Tonga	30 National adoption of PM&E approaches implemented	☐ Implemented by July 2012	☐ Endorsement by APEX body (APEX body minutes)	□ None required
	Incorporating MSC and reflection and learning techniques			
Tuvalu	30 National adoption of PM&E approaches implemented	☐ Implemented by July 2012	☐ Endorsement by APEX body (APEX body minutes)	□ None required
	Incorporating MSC and reflection and learning techniques			
Vanuatu	30 National adoption of PM&E approaches implemented	☐ Implemented by July 2012	☐ Endorsement by APEX body (APEX body minutes)	□ None required
	Incorporating MSC and reflection and learning techniques			

# Relevant national country staff trained in monitoring and PM&E approaches by end 2010 based on needs assessment

# **Proposed Target:**

Relevant national country staff trained in monitoring and PM&E approaches by end 2011 based on needs assessment

The timeframes between the original planning and the project implementation has meant that projects needed to be re-scoped, delaying this process. It is suggested that the RTAG consider revising the date for delivery. This could be achieved by planning and incorporating training into RSC 3, with targeted follow-up.

# Proposed Indicator(s)

# 31. National staff trained in monitoring and PM&E

Relies on undertaking a needs assessment for national staff, either at a regional level or in each country. Once this has been undertaken, the training needs should be clearly identified, and assessment of the achievement of this target relatively straightforward. The training could be undertaken at a regional level, sub-regionally or in-country.

# Country Reporting

Scorecard:	Complete	National staff trained in monitoring and PM&E based on needs assessment
	Mostly Complete	Monitoring and PM&E needs assessment completed and training for national staff partially complete
	Partially Complete	Monitoring and PM&E needs assessment completed and training planned for national staff
	Mostly Incomplete	Monitoring and PM&E needs assessment completed
	Incomplete	No Catchment Council in place

#### Regional Reporting

Scorecard:	Complete	National staff trained in monitoring and PM&E
	Maadha Oannalada	based on needs assessment in 13 countries
	Mostly Complete	National staff trained in monitoring and PM&E
		based on needs assessment in 9 countries
	Partially Complete	National staff trained in monitoring and PM&E
		based on needs assessment in 7 countries
	Mostly Incomplete	National staff trained in monitoring and PM&E
		based on needs assessment in up to 3 countries
	Incomplete	Training needs not assessed

Country	Indicator	Target	Means of Verification	Baseline
Cook Islands	31 Country staff trained in monitoring and PM&E  Based on a needs assessment. Relies on undertaking a assessment against national monitoring needs	☐ Training assessment report	☐ Report endorsed by Steering Committee	□ None required
Fiji	31 Country staff trained in monitoring and PM&E  Based on a needs assessment. Relies on undertaking a assessment against national monitoring needs	☐ Training assessment report	☐ Report endorsed by Steering Committee	□ None required
FSM	31 Country staff trained in monitoring and PM&E  Based on a needs assessment. Relies on undertaking a assessment against national monitoring needs	☐ Training assessment report	Report endorsed by Steering Committee	□ None required
Nauru	31 Country staff trained in monitoring and PM&E  Based on a needs assessment. Relies on undertaking a assessment against national monitoring needs	☐ Training assessment report	Report endorsed by Steering Committee	□ None required
Niue	31 Country staff trained in monitoring and PM&E  Based on a needs assessment. Relies on undertaking a assessment against national monitoring needs	☐ Training assessment report	Report endorsed by Steering Committee	☐ None required
Palau	31 Country staff trained in monitoring and PM&E  Based on a needs assessment. Relies on undertaking a assessment against national monitoring needs	☐ Training assessment report	☐ Report endorsed by Steering Committee	☐ None required
PNG	31 Country staff trained in monitoring and PM&E  Based on a needs assessment. Relies on undertaking a assessment against	☐ Training assessment report	☐ Report endorsed by Steering Committee	☐ None required

Country	Indicator	Target	Means of Verification	Baseline
	national monitoring needs			
RMI	31 Country staff trained in monitoring and PM&E	☐ Training assessment report	☐ Report endorsed by Steering Committee	□ None required
	Based on a needs assessment. Relies on undertaking a assessment against national monitoring needs			
Samoa	31 Country staff trained in monitoring and PM&E	☐ Training assessment report	☐ Report endorsed by Steering Committee	□ None required
	Based on a needs assessment. Relies on undertaking a assessment against national monitoring needs			
Solomon Islands	31 Country staff trained in monitoring and PM&E	☐ Training assessment report	☐ Report endorsed by Steering Committee	□ None required
	Based on a needs assessment. Relies on undertaking a assessment against national monitoring needs			
Tonga	31 Country staff trained in monitoring and PM&E	☐ Training assessment report	Report endorsed by Steering Committee	□ None required
	Based on a needs assessment. Relies on undertaking a assessment against national monitoring needs			
Tuvalu	31 Country staff trained in monitoring and PM&E	☐ Training assessment report	☐ Report endorsed by Steering Committee	□ None required
	Based on a needs assessment. Relies on undertaking a assessment against national monitoring needs			
Vanuatu	31 Country staff trained in monitoring and PM&E	☐ Training assessment report	Report endorsed by Steering Committee	□ None required
	Based on a needs assessment. Relies on undertaking a assessment against national monitoring needs			

Strategic IWRM communication plan framework for individual national development in place by end 2009 (based on Regional Communication Strategy in place by June 2009), with national development and implementation by end 2010

# **Proposed Target:**

Strategic IWRM communication plan framework for individual national development in place by end 2011 (based on Regional Communication Strategy in place by July 2011), with national development implementation by July 2012

The timeframes between the original planning and the project implementation has meant that projects needed to be re-scoped, delaying this process. It is suggested that the RTAG consider revising the date for delivery to reflect initial delays and the change in modality adopted to deliver the regional communication strategy. Rather than the national communication strategies being developed based on the regional strategy, national communication strategies are being developed on individual country needs, which are then distilled into a regional communication strategy.

# Proposed Indicator(s)

### 32. Regional Communication strategy in place by July 2011

# 33. National Communication strategies implemented by July 2012

Implementation of the National Communication strategies involves implementing actions in the strategy. Options for demonstrating that the strategy has been implemented include a

- i. Periodic review or commissioned review of the strategy, endorsed by APEX body, indicating that the strategy is being implemented
- ii. Allocation of a budget line for implementation of the strategy

In most countries it is anticipated that the approach adopted will be a review; however the allocation of budget for implementation provides confidence that the strategy would be implemented.

# Country Reporting

Scorecard:	Complete	Strategic IWRM communication plan implemented
	Mostly Complete	Strategic IWRM communication plan endorsed by Minister with budget or funding allocation
	Partially Complete	Strategic IWRM communication plan endorsed by APEX body
	Mostly Incomplete	Draft Strategic IWRM communication plan
	Incomplete	No Catchment Council in place

# **Regional Reporting**

Scorecard:	Complete	Regional Communication strategy in place and 13 national communication strategies implemented
	Mostly Complete	Regional Communication strategy in place and 9 national communication strategies implemented
	Partially Complete	Regional Communication strategy in place and 7 national communication strategies implemented
	Mostly Incomplete	Up to 4 national communication strategies in place
	Incomplete	No national communication strategies in place

Country	Indicator	Target	Means of Verification	Baseline
Regional	32 Regional IWRM communication plan framework implemented	☐ Implemented by July 2011	☐ Endorsed by Regional Steering Committee	☐ None required
Cook Islands	33 National IWRM communication plan framework implemented	☐ Implemented by July 2012	☐ Endorsement by Minister	□ None required
Fiji	33 National IWRM communication plan framework implemented	☐ Implemented by July 2012	☐ Endorsement by Minister	□ None required
FSM	33 National IWRM communication plan framework implemented	☐ Implemented by July 2012	☐ Endorsement by Minister	□ None required
Nauru	33 National IWRM communication plan framework implemented	☐ Implemented by July 2012	☐ Endorsement by Minister	□ None required
Niue	33 National IWRM communication plan framework implemented	☐ Implemented by July 2012	☐ Endorsement by Minister	□ None required
Palau	33 National IWRM communication plan framework implemented	☐ Implemented by July 2012	☐ Endorsement by Minister	☐ None required
PNG	33 National IWRM communication plan framework implemented	☐ Implemented by July 2012	☐ Endorsement by Minister	☐ None required
RMI	33 National IWRM communication plan framework implemented	☐ Implemented by July 2012	☐ Endorsement by Minister	☐ None required
Samoa	33 National IWRM communication plan framework implemented	☐ Implemented by July 2012	☐ Endorsement by Minister	☐ None required
Solomon Islands	33 National IWRM communication plan framework implemented	☐ Implemented by July 2012	☐ Endorsement by Minister	☐ None required
Tonga	33 National IWRM communication plan framework implemented	☐ Implemented by July 2012	☐ Endorsement by Minister	☐ None required
Tuvalu	33 National IWRM communication plan framework implemented	☐ Implemented by July 2012	☐ Endorsement by Minister	□ None required
Vanuatu	33 National IWRM communication plan framework implemented	☐ Implemented by July 2012	☐ Endorsement by Minister	□ None required

Multi-sectoral participation in national APEX bodies by end of 2009 with at least 33% female membership (including private and education sector membership and national finance and economic planning units)

#### Proposed Target:

Multi-sectoral participation in national APEX bodies by end of June 2011 with at least 33% female membership (including private and education sector membership and national finance and economic planning units)

Consideration needs to be given to the importance of achieving the 33% female membership against that of getting high level engagement from countries. With membership ideally targeted at Permanent Secretary/ Secretary level and the need to engage key agencies, there may not be females in senior positions. Requiring females to be members of the committee may then be perceived as devaluing the participation of the agencies required to nominate a female representative, who would then be potentially be at a lower level that representatives of other agencies. This is possibly reflected in only Niue and RMI reporting current APEX female membership at or above 33%.

The alternative option, that representatives from the community and/or commerce be restricted to females is not a realistic option. Accordingly, this component of the target is viewed as aspirational.

The timeframes between the original planning and the project implementation has meant that projects needed to be re-scoped, delaying this process. It is suggested that the RTAG consider revising the date for delivery to reflect initial delays and the change in modality adopted to deliver the national APEX bodies. For example, this is being accomplished in Palau through a process initiated with sub-regional summits, which have taken considerable time to initiate.

# Proposed Indicator(s)

#### 34. Multi-sectoral APEX bodies established

Relies on engaging the key sectors to be engaged in water governance. These would typically include utilities, education, finance, economic planning, environment, health, infrastructure, fisheries and agriculture, as well as commerce and civil society.

#### Country Reporting

Scorecard: Complete Multi-sectoral APEX body established

Mostly Complete Strategic IWRM communication plan endorsed

by Minister with budget or funding allocation

Partially Complete Strategic IWRM communication plan endorsed

by APEX body

**Mostly Incomplete** Draft Strategic IWRM communication plan

Incomplete No APEX body established

# Regional Reporting

Scorecard:	Complete	Multi-sectoral APEX bodies established in 13 countries
	Mostly Complete	Multi-sectoral APEX bodies established in 9 countries
	Partially Complete	Multi-sectoral APEX bodies established in 7 countries
	Mostly Incomplete	Multi-sectoral APEX bodies established in up to 4 countries

Incomplete No APEX bodies established

Country	Indicator		Means of Verification	Baseline
Cook Islands	34 Multi-sectoral APEX body in place	☐ Implemented by July 2010	<ul><li>Endorsement by Minister or Cabinet</li></ul>	□ None required
Fiji	34 Multi-sectoral APEX body in place	☐ Implemented by July 2010	<ul><li>Endorsement by Minister or Cabinet</li></ul>	☐ None required
FSM	34 Multi-sectoral APEX body in place	☐ Implemented by July 2010	<ul><li>Endorsement by Minister or Cabinet</li></ul>	☐ None required
Nauru	34 Multi-sectoral APEX body in place	☐ Implemented by July 2010	<ul><li>Endorsement by Minister or Cabinet</li></ul>	□ None required
Niue	34 Multi-sectoral APEX body in place	☐ Implemented by July 2010	<ul><li>Endorsement by Minister or Cabinet</li></ul>	□ None required
Palau	34 Multi-sectoral APEX body in place	☐ Implemented by July 2010	<ul><li>Endorsement by Minister or Cabinet</li></ul>	□ None required
PNG	34 Multi-sectoral APEX body in place	☐ Implemented by July 2010	<ul><li>Endorsement by Minister or Cabinet</li></ul>	□ None required
RMI	34 Multi-sectoral APEX body in place	☐ Implemented by July 2010	<ul><li>Endorsement by Minister or Cabinet</li></ul>	□ None required
Samoa	34 Multi-sectoral APEX body in place	☐ Implemented by July 2010	<ul><li>Endorsement by Minister or Cabinet</li></ul>	□ None required
Solomon Islands	34 Multi-sectoral APEX body in place	☐ Implemented by July 2010	<ul><li>Endorsement by Minister or Cabinet</li></ul>	☐ None required
Tonga	34 Multi-sectoral APEX body in place	☐ Implemented by July 2010	<ul><li>Endorsement by Minister or Cabinet</li></ul>	☐ None required
Tuvalu	34 Multi-sectoral APEX body in place	☐ Implemented by July 2010	<ul><li>Endorsement by Minister or Cabinet</li></ul>	□ None required
Vanuatu	34 Multi-sectoral APEX body in place	☐ Implemented by July 2010	<ul><li>Endorsement by Minister or Cabinet</li></ul>	□ None required

# Samoa Project Regional Reporting Indicators

Indicator	Target	Baseline	Progress	Basis for Progress Assessment
1 National Strategy in Place	☐ Strategy in place by mid 2012	None required	Mostly Completed	Joint Water Sector Coordinating Unit (JWSSC) has been set up by GoS to coordinate the Sector Wide Approach program (SWAp) in Samoa and the Secretariat of JWSSC is Water Sector Coordinating Unit (WSCU) formerly Water Sector Supporting Programme (WaSSP) became a Division of the MNRE in 2010
2 Discrete Budget Line for IWRM	☐ Budget line in place by mid-2013	None required	Partly Completed	Many of the IWRM concepts have been allocated in Water Resource Division annual budgets. WMP, WSP, Awareness materials.
3 National budget allocated to IWRM and WUE	☐ 20% increase in Budget	☐ Statement of 2009 budget allocated t o IWRM and WUE	Mostly Completed	WSCU budget allocation
4 Best IWRM and WUE approaches defined	☐ Approach defined	None required	Mostly Completed	Best practices have been incorporated into Water Sector Programmes. WWD, Biodiversity Day, Environment Week. Water Quality Committee, Water Technical Committee, etc
5 Best approaches to IWRM and WUE mainstreamed into national and regional planning frameworks	<ul><li>☐ National Strategy incorporates defined approach</li></ul>	None required	Completed	WSCU coordinating all the Water sector plans and budget

Indicator	Target	Baseline	Progress	Basis for Progress Assessment
6 Increase in land protected and/or rehabilitated over the catchment	□ 2,000 ha	□ Catchment area – 11,500 ha □ Reserves declared by Cabinet 1960 – 200 ha Lake Lanoto'o Reserve, 89ha Mt Vaea Reserve. □ Catchment forestry and native vegetation coverage as at 1 January 2009 or as close as practical in time – 40% secondary forest 4,600 ha, 10% native forest 1,150, 25% agriculture 2,875.	Partially Completed	RAMSAR convention Lake Lanotooo Reserve 2009 – 400ha, Vailima Natural Reserve 183ha Management Plan Finalise May 2011, RTT Malololelei Reserve proposal to Cabinet 500 May 2010
8 Reduction in water leakage loss in Apia	☐ 30% reduction in water leakage from system supplying 55,000 people	□ 16,000 cum □ 61 % □ 55,000 people (2006 census) □ 60m	Mostly Incomplete	Strategy and funding in place and leak detection undertaken and implementation phase started.
10 Population with access to improved sanitation	□ 30% increase in Apia residents with access to improved sanitation (11,000 people)	<ul> <li>8,500 households</li> <li>Population Apia Catchment 55,000</li> <li>Proposed WWTP for Apia CBD</li> <li>Proposed Septic construction regulation and de-sludging landfill</li> </ul>	Mostly Completed	80 properties + National Hospital & Fugalei Market serviced by WWTP SCADA system proposed for WWTP pumps Water Safety Plan for Fuluasou finalised New Septic tank design construction regulated through PUMA Septic tank de-sludging landfill at Tafaigata

Indicator	Target	Baseline	Progress	Basis for Progress Assessment
12 Legislation for Water Resource Management	Legislation enacted by Parliament by end of 2012	<ul> <li>□ Water Resource Management Act 2008</li> <li>□ National Water Drinking Standard 2009</li> <li>□ National Water Resource Management Policy review from 2001</li> </ul>	Mostly Completed	Water Abstraction Licensing Policy enacted  Water Safety Plan for Fuluasou finalised  Reviewed Watershed Management Plan for LOA finalised  National Water Service Policy submitted to cabinet
14 Lessons learned incorporated into other project(s) and/or Regulations	Replication demonstrated by end of project	None required	Partially Completed	Replication strategy developed such as taking of land issues and challenges, reviewed WMP and WSP.
15 Replication strategy developed and implemented to mainstream lessons learned	Replication demonstrated by end of project	<ul> <li>□ WaSSP Water Sector Support Program 2004</li> <li>□ Water For Life – Strategy for Development of Samoa document 2008-2012</li> </ul>	Mostly Completed	SWAp – Sector Wide Approach implementation with the engagement of WSCU as a secretariat for the JWSSC to coordinate the Water Sector.  IWRM personnel involved in Water Quality and Technical discussion matters.
16 National IWRM indicator framework embedded in formal national reporting		None required	Completed	IWRM indicators are part of budget and report review for the WSCU

Indicator	Target	Baseline	Progress	Basis for Progress Assessment
<ul> <li>National staff across institutions with IWRM knowledge and experience</li> <li>Proportion of community engaged in</li> </ul>	□ Increase □ 30% increases in	□ 2 personnel involved with IWRM regional meetings □ No staff IWRM training and experience records □ WRD personnel Training surveys □ 0 Review of IWRM training and job requirements at project commencement □ Attendance at awareness	Partially Completed  Mostly Completed	95% stakeholders attend IWRM consultation  3 personnel undertaking IWRM Post Graduate course  More than 30 participants in the IWRM Super Rugby Tipping competition  Winner of open and team category of 2010 Super Rugby tipping comp  WWD 2010 – 300 participants, WRD
water related issues	attendance at awareness raising activities  30% increase in active engagement activities	raising activities and at activities with active engagement  WWD 2009 – 50 participants	iviosity completed	organising  WWD 2011 – 200 invited, 400 participants, Joint Water Sector organising committee.  LOA community consultation – 1st consultation 2010 50 participants, 2nd consultation 2011 150 participants
19 Sectoral engagement in formal multilateral communication on water issues	☐ Increased engagement	SWA represents the voice of the water in formal communication	Complete	SWAp – Sector Wide Approach with JWSC involve in any National communication.
20 Apia Water Safety Plan (urban)	☐ Plan implemented	None required	Mostly Completed	Fuluasou WSP finalised waiting to be processed through to government WSP TA finished first stage workshop 2010

Indicator	Target	Baseline	Progress	Basis for Progress Assessment
28 National indicator framework implemented	<ul><li>Indicators incorporated into national reporting</li></ul>	None required	Partially Completed	National Indicator framework incorporated in APEX body and included in WSAp planing
29 Project design and PM&E plan implemented	Project and PM&E plan implemented by August 2011	None required	Mostly incomplete	PM & E planning under development
	☐ Consultation report			
30 National adoption of PM&E approaches implemented	☐ Implemented by July 2012	None required	Mostly incomplete	Not started
31 Country staff trained in monitoring and PM&E	☐ Training assessment report	None required	Partially incomplete	Need training and assessment
33 National IWRM communication plan framework implemented	Implemented by July 2012	None required	Mostly incomplete	Need a proper communication plan framework, non existence
34 Multi-sectoral APEX body in place	Implemented by July 2010	None required	Completed	Samoa Water Sector Wide Approach completed with appointment of WSCU as secretariat to JWSSC in 2010.