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

<table>
<thead>
<tr>
<th>Impact [IM]</th>
<th>Project Goal: To contribute to sustainable development in the Pacific Island Region through improvements in natural resource and environmental management</th>
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<tbody>
<tr>
<td>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*</td>
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<tr>
<td>Project Components</td>
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<tr>
<td>C1: Demonstration, Capture and Transfer of Best Practices in IWRM and WUE</td>
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<tr>
<td>C2: IWRM and WUE Regional Indicator Framework</td>
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<td>C3: Policy, Legislative and Institutional Reform for IWRM and WUE</td>
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<tr>
<td>C4: Regional and National Capacity Building and Sustainability Programme for IWRM and WUE, including Knowledge Exchange and Learning and Replication</td>
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<td>Component Objectives</td>
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<td>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</td>
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<tr>
<td>IWRM and environmental stress indicators developed and monitored through national and regional M&amp;E systems to improve IWRM and WUE planning and programming and provide national and global environmental benefits.</td>
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<tr>
<td>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</td>
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<tr>
<td>Sustainable IWRM and WUE capacity development, and global SIDS learning and knowledge exchange approaches in place</td>
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<td>Component Outcomes</td>
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<tr>
<td>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</td>
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<tr>
<td>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</td>
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<tr>
<td>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</td>
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<tr>
<td>Improved institutional and community capacity in IWRM at national and regional levels</td>
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</tbody>
</table>

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 19th-23rd 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

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

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.

**Measurable.** 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.

**Achievable and Attributable.** 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.

**Time-Bound, Timely, Trackable, and Targeted.** 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.
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 levels to enable projects to learn from each other as part of the project twinning approach.

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Step 1: Guiding principles and scope of PM & E
Step 2: Review & rationalisation of existing M & E
Step 3: Define Development Objectives & PM & E Indicators
Step 4: Develop PM & E Matrix
Step 5: PM & E Action Plan
Step 6: Data collection & analysis
Step 7: Evaluation
Step 8: Information Dissemination and Communication

- Improved design of new projects
- Adjustment & refinement of project in view of findings

Learning & reflection

Internal
- mid-term
- final

GEF-PAS

External
- mid-term
- final

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 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° 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. 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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2 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.