



GEF Pacific IWRM Demonstration Project

Managing Honiara City Water Supply and Reducing Pollution through IWRM Approaches



Solomon Islands

Final Report

Honiara, Solomon Islands

June 2014



CONTENTS

PREFACE	3
1. WATER AND SANITATION ISSUES IN THE DEVELOPMENT OF THE SOLOMON ISLANDS GEF PACIFIC IWRM NATIONAL DEMONSTRATION PROJECT	4
2. MANAGEMENT OF THE GEF PACIFIC IWRM NATIONAL DEMONSTRATION PROJECT IN SOLOMON ISLANDS	7
3. ESTABLISHMENT OF A COORDINATING BODY FOR THE OPERATION OF THE GEF PACIFIC IWRM DEMONSTRATION PROJECT IN SOLOMON ISLANDS	8
4. PLANNING STAKEHOLDER PARTICIPATION IN THE EXECUTION OF THE SOLOMON ISLANDS GEF PACIFIC IWRM DEMONSTRATION PROJECT	9
4.1 Gender Mainstreaming	10
5. RESULTS ORIENTED PLANNING AND IMPLEMENTATION OF THE GEF PACIFIC IWRM DEMONSTRATION PROJECT IN SOLOMON ISLANDS	11
5.1 Logframe Development	
5.2 Priority Areas of Work and Results	
5.3 Catalytic Impacts	17
5.4 Participatory Planning, Monitoring, and Evaluation	
6. STRENGTHENING NATIONAL COORDINATION AND IWRM POLICY AND PLANNING IN SOLOMON ISLANDS	18
6.1 Linkages of Demonstration Activities with IWRM Planning	
6.2 Improving National Coordination for IWRM	
6.3 National IWRM Planning	19
7. CAPTURING LESSONS LEARNED FOR REPLICATION AND SCALING-UP OF IWRM BEST PRACTICE IN SOLOMON ISLANDS	20
7.1 Lessons Learned	
7.2 Replication and Scaling Up	
8. PLANNING THE TRANSITION FROM IWRM TO THE REGIONAL RIDGE TO REEF INITIATIVE	21
8.1 Scaling-Up to broader Integrated Land, Water and Coastal Management	
ANNEXES	22



PREFACE

Solomon Islands, from the 2009 national census, puts the population at 515,870. Eighty percent (80%) live in rural areas and the remaining 20% live in urban and peri-urban locations. The annual average population growth rate stands at 2.3% while the overall population density is 17 persons per square kilometre; a population spread over approximately 28,000 km². Honiara City, the capital of Solomon Islands has a population of 64,609 of which 34,089 are males while 30,520 are females with a population density of 2,953 persons per square kilometre. Based on the broad MDGs 2015, the water and sanitation sector aims to half by 2015 the number people with access to safe and reliable water supply and sanitation services – one that is being pursued by Solomon Islands. Secondly the “ensuring environmental sustainability (MDG 7) warrants an IWRM Plan for Solomon Islands; one that can be achieved through an integrated national coordination committee where all sectors are involved in planning and development of land and water catchments at all levels.

Governance issues are those of fragmented institutional arrangements that come with fragmented responsibilities with water resources and sanitation funding, development and management. Given the fragmented responsibilities, coordination continues to be a challenge across sectors. Additionally there is inadequate and outdated governance framework that prevents integration between all sectors for water and sanitation development. However, there are good examples of specific management plans under revised legislation that can be adopted for the WATSAN sector.

The human resources needed to effectively deliver water and sanitation developments continue to impede the work-plans of responsible sectors. Staff recruitment is restricted to budgetary allocations resulting in freeze in recruitments while staff development plans (SDPs) lack future visions for developing capacity in the water and sanitation fields at professional levels.& financial capacity with inadequate civil society response to effect emerging issues,

The land tenure system in Solomon Islands is such that most land is customary-owned; tribes and clans have rights over what to do on the land. Land is divided according to each clan and family and consent must be obtained before accessing or entering into development. Water resources is therefore tied to land. This makes it difficult to distinguish between land and water ownership. To date landowners use water as a means to negotiate with water authorities and government when it comes to water supply payments – whether water is state-owned is a governance issue yet to be settled.

Existing national legislations have been passed for sector specific developments. However, environmental degradation due to development activities in which most lack planning and enforcement of regulations is evident from the negative impacts of logging, subsistence faSolomon Islandsng and unsustainable harvesting of marine resources; water resources always bears the brunt of these impacts which results in reducing water quantity and quality.

Security of supply due to deteriorating water quality and reducing quantity from insufficient storage, leakage, in-efficiency and climate variability/changes are increasingly evident. Most water supplies have run-off type systems where small intakes are built at streams. The absence of dams (reservoirs) does not capture water during the wet seasons to supply during the drier periods. Groundwater resources sometimes supplement the supply but at a higher pumping cost.

Climate Change scenarios from models indicate increasing extreme events as more floods and drought are likely. Sea-level rise & impacts on livelihoods in atolls and higher islands may cause sea-water intrusion into groundwater and destruction of water infrastructure respectively. Climate Change mostly revolves around water resources (lack of it or more) it is apparent that adaptation funding is donor-driven in-country.

The lack of effective liquid and solid waste management due pressure from urban planning and uncontrolled developments is exacerbated by the lack of maintenance of sewer infrastructure, no proper sewerage treatment and regulatory compliances results in raw sewerage disposals directly to rivers and coastal areas.

Barnabas Anga

Permanent Secretary Mines,
Energy and Rural Electrification

Charlie Bepapa

IWRM Focal Point,
Chairman of Steering Committee





1. Water and Sanitation Issues in the Development of the Solomon Islands GEF Pacific IWRM National Demonstration Project

The UNDP in collaboration with the GEF, signed an agreement in 2004 with SOPAC to carry out a developing program on Integrated Water Resources and Wastewater Management for the Pacific Island countries including Solomon Islands. The objective of the agreement was to carry out analyses of water and sanitation issues towards fulfilling the Pacific Regional Action Plan (RAP).

Diagnostic Report

A requirement of each country was to produce national analyses reports. The national analyses included a Diagnostic Report, a Hot Spot Analyses and the Demonstration Concept. All of these reports followed the logical process that included a review of the national water management and its linkages to other sectors, identified barriers and ways to overcome them.

The Ministry of Mines and Energy was identified with responsibility as the IWRM focal point in the consultation process. It set up a working group that comprised of government ministries as follows:

- Ministry of Mines & Energy
- Ministry of Agriculture & Livestock
- Ministry of Forests, Environment & Conservation
- Ministry of Health & Medical Services
- Live & Learn Education (SI)
- International Water Project (IWP) – Ministry of Fisheries

The working group led workshops and seminars to obtain input from other organizations, which was used to identify the areas and information required for the analyses.

The established working group identified each sector to complete specific analyses of their programs that had a water and sanitation component in it. The output from the sectoral analyses was the Diagnostic Report.

Hot Spot Analyses (HSA)

In 2007 12 organisations came together to discuss and identify areas and locations that are considered critical and required consideration for a proposal for funding. The output of this workshop was the Hot Spot Analyses report. The areas covered as hot spots included coastal waters (urban), surface water pollution, water resources and supply (urban, rural and atolls) and environmental degradation as encompassing aspect. Each site was considered further using the “sensitive area analyses” ranking. Here the value of each site was considered for its socio-economic and environment significance. Additionally each site was further rated on potential impacts at local, national and regional/global level. Results from the HSA during the consultation workshop of the seven identified sites showed the following:

Scope of Demonstration Project

It was evident from the National HSA and diagnostic analyses reports that Honiara’s water resources were a priority issue among the stakeholders. The priority issue of pollution was a concern due to the disposal of raw sewerage through septic systems and outfalls at the coastal areas within Honiara city. The resulting project “Managing Honiara City water supply and reducing pollution through IWRM approaches” aimed to achieve best practice in water resources and supply management using the “ridge to reef” concept while at the same time taking water issues using the bottom up approach using the “community to cabinet” concept.

Rank	Title	Score	Priority Issue
1	Honiara water resources	85	Pollution
2	Matepona River	81	Pollution
3	Urban coastal waters	77	Pollution

The IWRM approach to address the key areas identified by the Diagnostic Report were based according to the six thematic areas of the Pacific Regional Action Plan on sustainable water resources management. The key areas identified for Solomon Islands in the proper planning and development of land and water resources in the country are:

1. Need for basic information for water resources assessment and protection;
2. Monitoring, preparedness and disaster management;
3. Education, awareness and community participation;
4. Water demand and supply management and provision of water treatment;
5. Policies, legislation, planning and better coordination;
6. Cost recovery and economic benefits;
7. Land use planning and management (including forestry);
8. Environmental monitoring and protection;
9. Protection of water quality for public health, and
10. Integrated planning and management of watersheds and coastal areas

From the above thematic areas the following components were developed and identified in the logframe and work-plan which encompasses the scope of the demonstration project:

- Development of a Catchment Management Plan at a selected water catchment through national policy and legislation enactment of the IWRM policy and new Water Resources Legislation

- Catchment Survey – assessments of catchment resources including mapping of vegetation, cultural sites, forestry and biodiversity and hydrological (data) acquisition – information for a water catchment as the smallest unit within which all activities occur needs to be assessed of its values and its characteristics in order for sustainable planning and development; the negative and positive aspects to developments must be compromised to achieve acceptable benefits.

- Awareness to promote and increase capacity of communities and government institutions to integrate development activities, social equity and environment protection using integrated water resources management approach – educating the people everyday is a powerful tool to convince and bring about a change in attitude and it was a good strategy to educate the young generation about the concepts and practical approaches to water resources and environmental sustainability.

- Water Safety Planning – promoting the Solomon Islands Water Authority (SIWA) to have in place a coordinated and documented method of risks assessment, identifying areas within water supply distribution that needs attention; a risk reduction or emergency plan is a document that needs to be implemented to ensure that both moral and practical aspects of meeting the water safety standards increases public confidence in the water provider. Where there is no guarantee on the quality of water supplied by the service provider demands explanation by the consumers.

- Water Use Efficiency (WUE) and Water Demand Management (WDM) – promote wise use of water through improved infrastructure, attitude change and retrofitting at supply and demand sides; leaks detection and abatement at selected areas to pressurize distribution systems and reporting of leaks; plans on developing new water sources remains a priority today but water service providers must also consider the costs of water losses through leaks and vandalisms in current distribution systems because fixing leaks and educating people about what to do to prevent water losses can save electricity and money both at supply and demand sides of the water equation.

- Project Management – a requirement to deliver on the above components with assistance from the Project Steering Committee. The pilot project for Honiara wants to achieve its objectives and also needs to transfer the lessons learnt from its expected outcomes. The PSC that comprises of primary and secondary stakeholders including women and community groups were established to drive the project. The successes and/or failure of the project depends very much on each stakeholders inputs which the Project Management Unit (PMU) will implement in the work-plans each quarter.

The project log-frame covers the following areas: policy and legislation on IWRM, Water Safety Plan and Demand Management, Awareness and Assessments of water sources and distribution and how water service provider and the consumers play a collaborative role in managing the city's water resources and supply to maintain its quality and quantity over time.





At the end the project timeline, the outcomes achieved were as follows: IWRM Policy and planning component, under a concurrent funding eventuated with a WATSAN policy and accompanying implementation plan finalized and prepared for government endorsement; this will be a nationally implemented policy with lessons learnt from the project prior to its formulation.

A demand management component of the project eventuated with a reduction of water leakages and installation of water meters, both for supply mains and consumers, to monitor flow and non-revenue water at one the highest leakage zones (Mbokonavera 1-4). Additionally this intervention showed an increase in supply hours to high elevated zones as a result of replacing old distribution pipelines.

A water safety plan component resulted in the formulation of the Honiara Water safety Plan after consultations, training and assessments of sources to consumers' aspects of Honiara's 5 main water sources. Based on a multi-barrier and HACCP processes the Plan is finalized and prior to endorsement by the water service provider (SIWA), initial

improvement works funded by other donors and supported by the project is taking place already.

Additionally, assessments of the Kovi/Kongulai catchment that supplies more than 50% of Honiara's water underwent critical investigations about its catchment characteristics namely hydrology and geology, biodiversity, forestry and cultural sites. Since it is customary-owned the project assisted further by formulating an Ecotourism Plan as a means to venture into conservation and self-financing. A catchment Management Plan is also formulated for the catchment to further support the importance of water resources conservation and development at the catchment.

All of the above outcomes is supported by awareness on the IWRM approach to managing water supply for Honiara. Activities on awareness were made through radio on a weekly basis, UN appointed days as World Water Day and Environment Day and pamphlets were located at the water service provider's consumer service counters for public access.



2. Management of the GEF Pacific IWRM National Demonstration Project in the Solomon Islands

The Ministry of Mines, Energy & Rural Electrification is the Lead Agency for the IWRM pilot project. Its vision when established focused on the development of natural non-living resources in a sustainable manner, to achieve social and economic advancement for the people of Solomon Islands.

To realize its vision the Lead Agency provides the basis for the appropriate promotion, development, conservation and management of our natural non-living resources for social and economic betterment and enhancement, and through the understanding of natural systems, resources as land and water are sustainably developed and managed.

The role of the Lead Agency is mandated to contribute to economic and social development of Solomon Islands through:

- water resources assessment, planning and development
- appropriate dissemination of acquired information about water & water related issues
- management of resources that tie together (land & water) which most times are not always considered together at the planning stages (integrated water and land-use planning)

It is the function of the Water Resources Division is to be responsible for the following:

1. Establish and upgrade national capacity in hydrology and water resources assessment for improved water related

services to rural and urban communities

2. Establish a framework for assessment and management of national water resources.
3. Develop capacity for well-founded technical advice to people of Solomon Islands on water resources and related natural hazards.
4. Establish legal framework in management and administration of water resources in Solomon Islands.

The Department Development Strategies, as identified in the NCRA Policy Statement are:

- Assist in the review the SIWA to improve service delivery;
- Address weaknesses in SIWA and ensure they function effectively & efficiently towards the overall development of the country

Strengthening of governance institutions through the promotion of cross-sector agency approach, efficient and effective coordination of government policies and effective environmental governance. Since the Lead Agency has the mandate to implement government policy and plans regarding water resources, the IWRM Project was confirmed to be the right stakeholder to try and fulfill part of the programmes currently being implemented.

Lead Agency

Ministry of Mines, Energy and Rural Electrification

Memorandum of Agreement

On behalf of Mines, Energy and Rural Electrification On behalf of SOPAC

Signed: September 2009

Luma Darcy, Permanent Secretary

Cristelle Pratt, Director

National IWRM Focal Point



Mr. Charlie Bepapa

Director, Water Resources Division, MERE

National IWRM Project Manager



Mr Isaac Lekelalu

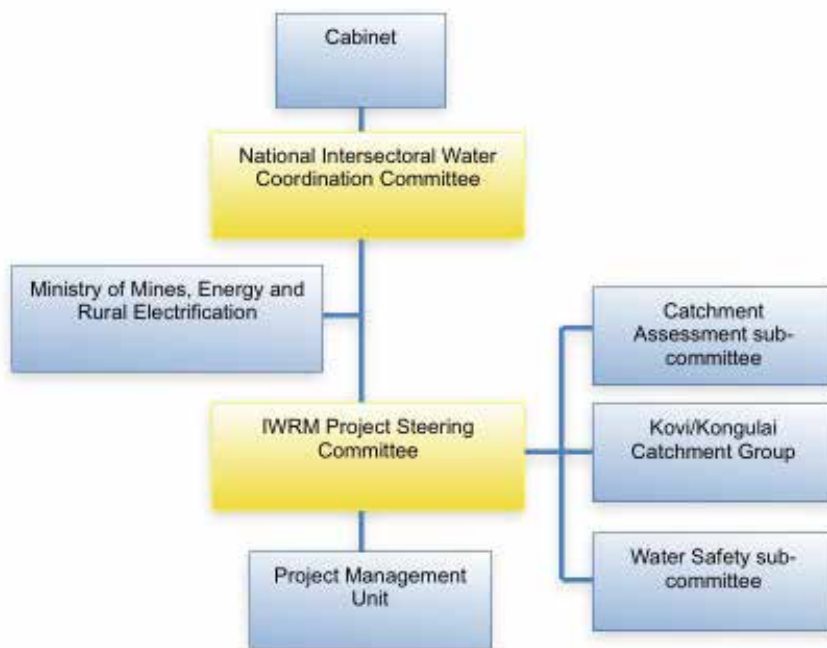
Water Resources Division, MERE



3. Establishment of a Coordinating Body for the Operation of the GEF Pacific IWRM Demonstration Project in the Solomon Islands

Prior to the IWRM Project there was no integrated coordinating body for the management of water resources in Honiara. The implementation of this project required a Project Steering Committee to provide input into project plans, guide policy development and monitor progress towards goals.

The Project Steering Committee was established in 2010 and comprises of 15 members from government and civil society, land owners and an NGO. The Project Steering Committee (PSC) during the course of the project further established sub-committees to oversee specific activities including a catchment assessment sub-committee, water safety sub-committee and the Kovi/Kongulai Catchment Group who worked closely with the PMU throughout implementation. With the establishment of a National Intersectoral Water Coordinating Committee (NIWCC) in 2012 the PCU now reports to this National Committee and provides input into national water activities. The following diagram presents the structure of the PSC and links to other national committees.



4. Planning Stakeholder Participation in the Execution of the Solomon Islands GEF Pacific IWRM Demonstration Project

The approach to this project was implemented under components that consider catchment management planning, water safety and water use efficiency planning. As it involves land and water resources planning and development, a range of sectors form the group of stakeholders for the project.

The analysis of stakeholders and action planning report for the project were completed during the project start-up in 2009. A local consultant carried out individual and group consultations. From the stakeholder analysis and action plan, it was confirmed that a Project Steering Committee would be established as the Honiara Demonstration

Project Steering Committee (HDPCC). A total of up to 15 stakeholders were identified and engaged to be representatives on the Steering Committee. Most represent government line ministries while others represent communities (landowners), NGO and civil society and women's groups. The full Stakeholder Analysis and Engagement Action Plan can be found in Annex 3.

The following table highlights the key stakeholders who were identified and categorized according to their levels of engagement in the project.

Primary Stakeholders	Key interests / concerns
Solomon Islands Water Authority (SIWA)	Water source supply, efficiency and water safety
Kovi & Kongulai Communities (Landowners)	Land access, natural resources assessments, sources developments
Environmental Health Divisions (Honiara City Council & National Public Health Laboratory)	Water safety, regulatory & monitoring
Water Resources Division (Mines & Energy)	Hydro-geological assessments & monitoring
Project Management Unit (PMU)	Overall project management
Secondary Stakeholders	Key interests / concerns
Environment & Conservation Div. (MECDM)	Catchment management, EIA's
Meteorological Services Div. (MECDM)	Meteorological & climate forecasting
Climate Change Div. (MECDM)	Vulnerability assessments for supply & demand sides
Forestry Resources Management (MF&R)	Catchment management, sustainable agro-forestry
Ministry of Land & Housing (ML&H)	Catchment acquisition, registration, physical planning
Geological Survey Div. (MMERE)	Catchment mapping, geological hazards mapping
Agriculture Research Div. (MAL)	Sustainable land management, catchment management
Women Development Div. (MWYCA)	Water use efficiency, human rights, behavior change
Live & Learn Education (SI) NGO	Community education

Based on the engagement analysis report the primary stakeholders were involved in the project from the beginning. For project planning most inputs were expected to originate from them and the PMU worked closely with them through to completion. Where required under each project component the primary stakeholders were expected to identify key areas with the PMU to deliver the right outcomes. At stages of the project, sub-committees of the Steering Committee were established;

for example the Kovi & Kongulai Catchment Community that works closely with the PMU.

Equally important are the secondary stakeholders. Their responsibility to advise and recommend improvement towards project outcomes contributed to the overall planning and monitoring process. On-going consultations and coordination from members of this group contributed



to the whole of project delivery. Additionally, they were assigned activities to promote IWRM for the demonstration site when it became appropriate and advantageous.

Involvement of senior staff in the Steering Committee brought with it the advantage of promoting IWRM at the higher political level. While being part of the IWRM project, it was evident other committee memberships are applying the lessons learnt here to other sectors and promoting IWRM mainstreaming is becoming a platform to further incorporate IWRM under this stakeholder action plan.

During project implementation many benefits from our engagement strategies were seen. Community level engagements between the PMU and its members were made through their representatives in the Project Steering Committee (HDPCC). Consultations and workshops, inputs to project workplans and engaging community members for field work and casual manpower requirements were channelled through two members from the Kovi/Kongulai committee. They were also influential chiefs of the community participating in the committees and their involvement helped to encourage more community interest in the project.

Secondly, the engagement between the PMU and the government organisations including Statutory Authority, civil society and the public was made possible through the Steering Committee. Since the Steering Committee and the APEX Body is endorsed by Cabinet decision, it has the responsibility to inform management on decisions about the project's activities and requests to progress its work. Membership compositions in these committees were at times found to be the same in other national projects and programs hence communication and collaboration results in synergies to project activities and decision making at the higher levels.

4.1 Gender Mainstreaming

Conscious of the gender bias prevalent in most Pacific countries and aware of the need to address inequality, the project attempted to develop ways to increase women's participation. Now at the end of the project with many lessons learned we see there is much work still to be done for gender mainstreaming. Throughout the project however we attempted to engage women through community level consultations and workshops. Consultations included engaging women separately in discussions on how the project's activities will benefit them as users and stewards or custodians of the outputs of the project components. The participation of women in consultations and workshops comprised of about 50% during combined gatherings with men. Facilitated by the Women Development Division and Honiara City Council, women from selected church and NGOs in Honiara took part in workshops on water demand management and water use efficiency at household level. This is a technique we will use more in the future. The difficulty with engaging women in the project planning and implementation is cultural as out of respect and tradition, women do not speak openly during community meetings. We have learned now to find ways to engage women separately, in an open and comfortable environment for them.

In the Project Steering Committee the representation of women was only 10% of the total members. It was clear that their inputs to project management at the coordination level were minimal even if they were present for meetings. However, at the sub-committee level women's involvement increased to about 30%. They were engaged in the water safety plan's field assessments planning, field works compilations and evaluations during the course of the assessments. The absence of a higher number of women in the Project Steering Committee or APEX groups shows the few number of women who hold high posts in the government and are thus eligible to join, this may be associated with lower levels of education of women in the community.



5. Results Oriented Planning and Implementation of the GEF Pacific IWRM Demonstration Project in the Solomon Islands

5.1 Logframe Development

The Project Document for the IWRM demonstration project was formulated over a period of 3-4 years until its approval in 2009. Given the lag time between formulation and approval, the project needed a revision of the logframe in 2009 whereby a consultant was engaged to review the document with input from the project stakeholders. Some changes were made to keep the logframe relevant and included the Kovi and Kongulai catchment as an important area for project activities. The full updated project logframe can be found in Annex 4.

5.2 Priority Areas of Work and Results

The overall goal is for Honiara city's water supply and catchments is to be sustainably managed and protected from pollution and over-exploitation by applying the IWRM approach in order to provide quality water services and maintain freshwater and coastal ecosystems.

The following table summarises the priority objectives and activities of the IWRM project. The full project logframe is included with this report as Annex 4.

Project Objectives	Activity
Goal:	
Outcome 1: Development of integrated Kovi/Kongulai catchment management plan and inclusion of area based management into National policy, planning and legislation framework	
Output 1.1 Policy and legislation enabled to mainstream IWRM and integrated catchment management.	Activity 1.1.1 Review legislative requirements to enable integrated catchment management. Activity 1.1.2 Develop a strategy for endorsement by Cabinet of IWRM and to mainstream integrated catchment based management into legislation and national policy Activity 1.1.3 Develop draft legislation and/or policies and provide a legal framework for integrated catchment based management
Output 1.2 Establish and support the Kovi/Kongulai Catchment Management Advisory Committee (KKCMAC), a multi-stakeholder committee comprised of government, civil society organizations, private sector and community representatives responsible for the preparation and implementation of the Kovi/Kongulai Integrated Catchment Management Plan	Activity 1.2.1 Develop governance framework for KKCMAC, including terms of reference, roles and responsibilities and legislative and institutional links Activity 1.2.2 Develop support structure for KKCMAC, including an secretarial capacity Activity 1.2.3 Establish KKCMAC Activity 1.2.4 Raise awareness and develop skills of KKCMAC Activity 1.2.5 Develop a business plan for KKCMAC that Identifies options for sustainable financing.
Output 1.3 An implemented Kovi/Kongulai Catchment Management Plan - A catchment based management plan developed through a rapid appraisal process involving community and stakeholder engagement, and assessment of currently available data and information.	Activity 1.3.1 Collate and Coordinate technical, community and economic studies Activity 1.3.2 Prepare Catchment Issues and Response Discussion Paper Activity 1.3.3 Develop Kovi/Kongulai Catchment Management Plan Activity 1.3.4 Declaration of Kovi/Kongulai as a protected catchment Activity 1.3.5 Community Awareness Activity 1.3.6 Declaration of Kovi/Kongulai as a protected catchment
Output 1.4 To Successfully commence implementation of the Kovi/Kongulai Catchment Management Plan	Activity 1.4.1 Identify KKCMAC support requirements, roles and responsibilities and funding mechanisms Activity 1.4.2 Establish executive support unit to implement the Kovi/Kongulai Catchment Management Plan under KKCMAC governance
Output 1.5 Replication Strategy	Activity 1.5.1 Develop Replication Strategy Activity 1.5.2 Implement Replication Strategy



Output 1.6 National IWRM Plan developed and implemented incorporating best IWRM and WUE approaches	Activity 1.6.1 Define best IWRM and WUE practices for Solomon Islands
	Activity 1.6.2 Draft National IWRM Plan
	Activity 1.6.3 Consultation on National IWRM Plan
	Activity 1.6.4 Implemented National IWRM Plan
	Activity 1.6.5 National IWRM communication plan framework implemented
Output 1.7 National Indicator framework embedded in formal national reporting incorporating PM&E	Activity 1.7.1 National Indicator framework embedded in formal national reporting
	Activity 1.7.2 Develop national capacity in PM&E
COMPONENT 2: Data collected & map produced with comprehensive understanding of size, location of catchments and significance of various land based activities impacting on quality and quantity of Honiara's water	
Output 2.1 Catchment Survey	Activity 2.1.1 Topographic survey of Kongulai catchment, Rove Catchment and Kombito Catchment for boundary demarcation.
	Activity 2.1.2 Identify places of cultural importance
	Activity 2.1.3 Mapped data indicating vegetation cover
	Activity 2.1.4 Produce catchment maps clearly showing route of rivers, streams, wetlands, loggings, cultural sites, villages, land use, vegetation cover
Output 2.2 Hydrological/hydro-geological surveys	Activity 2.2.1 Data collection of - surface water flow, groundwater storage quantities, groundwater recharge and discharge rates, and seasonal and yearly variations including water balance studies
Output 2.3 System for monitoring and reporting on Catchment Health established	Activity 2.3.1 Hydrology monitoring
	Activity 2.3.2 Physical form monitoring
	Activity 2.3.3 Streamside vegetation monitoring
	Activity 2.3.4 Water quality monitoring
	Activity 2.3.5 Macroinvertebrate monitoring
Output 2.4 System for monitoring and reporting on Catchment Health established	Activity 2.4.1 Awareness conducted
	Activity 2.4.2 Meeting with landowners
	Activity 2.4.3 Meeting with SIWA
	Activity 2.4.4 Establish agreements with landowners
COMPONENT 3 Improved institutional and community capacity in IWRM at national, provincial and catchment level	
Output 3.1 Community engagement strategy	Activity 3.1.1 Collect and collate detailed community and stakeholder information base
	Activity 3.1.2 Develop community engagement strategy
	Activity 3.1.3 Implement and report on engagement strategy
	Activity 3.1.4 Record and report on lessons learnt in Community and Stakeholder engagement
Output 3.2 Participants have the interest and capacity to contribute to the development and implementation of the Kovi/Kongulai Catchment Management Plan	Activity 3.2.1 Undertake capacity needs assessment for stakeholders, governance, technical and institutional needs
	Activity 3.2.2 Develop capacity building strategy
	Activity 3.2.3 Review capacity building toolkits available adopt and modify as determined
	Activity 3.2.4 Implement capacity building strategy
Output 3.3 General and public awareness for integrated water resources management	Activity 3.3.1 Produce awareness material
	Activity 3.3.2 Awareness through radio, TV and website
	Activity 3.3.3 Awareness through workshops and seminars
	Activity 3.3.4 Community based awareness through women's group, churches, schools and landowners
Output 3.4 Training and education for effective IWRM	Activity 3.4.1 Incorporate IWRM into school curriculum
	Activity 3.4.2 Organize workshops and seminars for stakeholders, consultants

COMPONENT 4: Water safety plan produced & implemented	
Output 4.1 Water safety plan	Activity 4.1.1 Review of land based activities
	Activity 4.1.2 Liaise with SIWA to produce the plan
	Activity 4.1.3 Based on data collected from catchment surveys and other activities, produce water safety plan
	Activity 4.1.4 Implement surface water and ground water quality monitoring program
COMPONENT 5: Develop and implement National Water Resource Management Policy incorporating WUE	
Output 5.1 National Water Resource Management Policy incorporating WUE	Activity 5.1.1 Review and recommendations on access to ground water
	Activity 5.1.2 Consultations with commercial drilling coys
	Activity 5.1.3 Development of a Honiara groundwater management plan
	Activity 5.1.4 Establishment of licencing/permits and conditions for bores
Output 5.2 Capacity developed Nationally and resources allocated to implement policy	Activity 5.2.1 Review of hydrogeology of Honiara water supply zones
	Activity 5.2.2 Design of supply zone sampling programme
	Activity 5.2.3 Establishment of four (4) priority observation wells
	Activity 5.2.4 Implementation of routine groundwater monitoring program
COMPONENT 6: Water Demand Management	
Output 6.1 Produce Demand Management Plan	Activity 6.1.1 Leakage and illegal connection survey
	Activity 6.1.2 Conduct water loss auditing
	Activity 6.1.3 Survey of losses and wastage in selected water supply distributions zones
	Activity 6.1.4 Conduct flow monitoring (night/day) in priority zones
Output 6.2 Implement Water Use Efficiency Plan	Activity 6.2.1 Produce Water Use Efficiency Plan
	Activity 6.2.2 Identify skill shortages for implementation of WUE Plan
	Activity 6.2.3 Implement Water Use Efficiency Plan
	Activity 6.2.4 Develop and implement regular monitoring management reporting of WUE
COMPONENT 7: To successfully deliver the Honiara water supply project-	
Output 7.1 Successful Project Startup	Activity 7.1.1 Recruit Project Manager and Project Assistant
	Activity 7.1.2 Establish Project Management Unit office
	Activity 7.1.3 Re-visit project design with stakeholders and refine design and approach where necessary
Output 7.2 Effective reporting and management	Activity 7.2.1 On site management of the Project by a PM with relevant expertise
	Activity 7.2.2 PSC established
	Activity 7.2.3 Arrange and act as Secretariat to the regular meetings of the PSC
	Activity 7.2.4 Quarterly reports to PCU and Focal Point
	Activity 7.2.5 Annual reports to PCU and Focal Point
	Activity 7.2.6 M&E system in place
	Activity 7.2.7 Monitor and facilitate cofounded inputs
	Activity 7.2.8 Source additional funding to add value to project outcomes
	Activity 7.2.9 Cooperate with external monitoring by PCU
	Activity 7.2.10 Project Completion Report drafted and submitted



The following table highlights some of the key national IWRM results to date. The full Results Notes can be found in Annex 5.

Key results
1. Increased land-owners, community awareness and project support on the importance of water catchments through dissemination of key findings and results from catchment surveys specifically at the Kovi/Kongulai catchment and general public awareness on water resources management through wise water use and conservation through targeted water consumers and educational campaigns
2. Increased collaboration with primary stakeholder (SIWA) through the Leakage Team to implement water demand management (WDM), water use efficiency (WUE) activities at Mbokonavera 1-5 zone
3. Formulation of a Water Safety Plan (WSP) for Honiara City's water supply through collaboration between major stakeholders as the Ministry of Health & Medical Services (Environmental Health), Solomon Islands Water Authority (SIWA), Ministry of Environment & Conservation, Ministry of Mines & Energy (Water Resources) and Honiara City Council (EHD)
4. Formulation of the IWRM-based National Water Resources and Sanitation Policy and Plan (WATSAN) with planned Cabinet endorsement before end of 2013.



5.2.1 Co-financing

The following tables highlights the co-financing that was realised and the additional funding that was leveraged from success of the project activities.

Source	Amount (USD)	Cash or In-kind	Description
Government	4,500	Cash	Office space rental
Government	3,200	Cash	Communications
Government	4,500	Cash	Quarterly stakeholder meetings
Government	2,000	Cash	Utilities
Government	25,000	Cash	Water quality equipment, analysis
Government	5,000	Cash	4 wheel drive vehicle
Government	2,000	Cash	Fuel and servicing
Government	4,000	Cash	Natural resource and ecosystem survey
Government	4,000	Cash	Honiara waste disposal
Government	75,000	Cash	Sewage disposal
Government	18,000	Cash	Design and planning consultations for preliminary plans
Government	24,000	Cash	Adoption of Protected Zones
Government	66,000	Cash	Adoption of Honiara watershed/aquifer management plan
Government	46,000	Cash	Policy and legislative review
Government	88,000	Cash	Monitoring and compliance mechanisms
Government	24,000	Cash	Reports and guidelines
Government	0	Cash	Not indicated
EU-SOPAC IWRM	85,000	Cash	Review Water Safety Plan for Honiara City
EU-SOPAC IWRM	130,000	Cash	Develop Water Safety Plan for Honiara and Solomon Islands
EU-SOPAC HYCOS	25,000	Cash	Computers, software, office equipment and backup services
EU-SOPAC HYCOS	25,000	Cash	Water level, rain-gauge, flow and pressure loggers
EU-SOPAC HYCOS	50,000	Cash	Hydro-geological survey
EU-SOPAC HYCOS	75,000	Cash	Kongulai catchment studies
EU-SOPAC HYCOS	58,440	Cash	Water balance study
NZAID-SOPAC WDM	220,000	Cash	Wastage and leakage detection survey
NZAID-SOPAC WDM	160,000	Cash	Develop Water Use Efficiency Plan for Honiara
Australian Water Research Facility	50,000	Cash	Design and planning consultations for preliminary plans
Australian Water Research Facility	50,000	In-kind	Policy and legislative review
Australian Water Research Facility	50,000	In-kind	Reports and guidelines
Australian Water Research Facility	24,311	In-kind	Awareness and education
	1,397,951		

Direct from Lead Agency (US\$)		Other Funding Sources (US\$)		Description of Co-Financing Raised
Cash	In-Kind	Cash	In-Kind	
15,000				Project Manager Salary
8,500				Project Manager Rental
	830,000			SIG Improving Honiara Water Supply Project
	623,700			SIG Urban Water Supply Program
			16.9m	JICA Improving Honiara Water Supply Project
23,000	1,453,700		16,900,000	Total additional co-financing



5.2.2 Benefits of co-financing

The following boxes highlight examples of how co-financing and additional funding have helped to benefit the project objectives.

Water Use Efficiency & Demand Management (WUE/WDM) & Non Revenue Water

Type: In-Kind

Agency: Solomon Islands Government (SIG)

Amount: USD623,700

Activities and benefits: Improving water storage and reducing water losses in supply and non-revenue water by increasing production and fixing leaks and installing new meters at consumers residences



Water Safety Plan-Water quality improvements

Type: In-Kind

Amount: USD16.9million (Total Project)

Agency: JICA/AusAID

Activities and benefits: Improving water quality through disinfection and reducing turbidity using settling/sedimentation tanks at one of SIWA's surface water sources (Kombito)



5.2.3 Key Awareness Materials

Below is a summary of the key awareness materials that were developed over the course of the IWRM project, details of these can be found in Annex 6.

1. Newsletters
2. Calendar promotion
3. Water Use Efficiency (WUE) & Demand management (WDM)
4. Radio Weekly Programs
5. Video Shows

5.3 Catalytic Impacts

There are two impacts that can be considered catalytic during the course of implementing this project. First was the initiatives made by the project to proactively set up a project steering committee that acts as the interim APEX body prior to cabinet's official endorsement. Having senior officers from government in the Steering committee continued to promote the activities with the high-level decision-making staff of government Ministries and other civil societies and tertiary institutions.

Progressing further to the need to formulate a national policy and plan under the project and concurrent EU planning component deserves a higher decision-making committee to oversee the policy formulation process. The endorsement of the APEX Body with a TOR and Chaired by the Lead Agency's Permanent Secretary, now comprising of most

senior officers in the project steering committee; this meant that the continuity of challenges at pilot level are lessons that are incorporated into the new WASTAN Policy and Plan which are founded on the IWRM Principles and goals.

Secondly, the project in its Water Use Efficiency and Demand Management component targeted a high leakage zone at one of Honiara's water supply areas. Staff from Solomon Water with materials and equipment supplied by IWRM completed a leakage detection activity. This led to water loss being calculated and a very old galvanized pipe being replaced. This has reduced leakage and then increased the water-hours to other higher elevated areas within the project zone. Later, a JICA funded project on non-revenue-water (NRW) confirmed the leakage at one of the areas to confirm the project's first results. The JICA project now does the same activity at some more sites within Honiara to continue work on the work initiated through the IWRM Project.

5.4 Participatory Planning, Monitoring, and Evaluation

The PMU manages the project using the approved logframe and workplan on a quarterly basis. The main stakeholders in the project are from the catchment community of Kovi and Kongulai, the Water Services provider (SIWA) and the Environmental Health Division, Ministry of Health and Medical Services. Stakeholders' participation in planning, monitoring and evaluation took place during project steering committee meetings while the wider stakeholders were involved during consultations, workshops and assessments and field work. At the Ministerial level, monthly and quarterly reports gauged the progress of the project. The Solomon Islands Participatory Monitoring and Evaluation Plan can be found in Annex 7.





6. Strengthening National Coordination and IWRM Policy and Planning in the Solomon Islands

6.1 Linkages of Demonstration Activities with IWRM Planning

Solomon Islands embarked on its EU funded Water Governance project in 2005 under the Pacific Water Governance project. This was the start of the national coordination activities to formulate a national water resources policy. Since 2005 stakeholders from line Ministries, the Water Authority and NGOs were involved in consultations organized by the Ministry of Mines and Energy. A Water Governance Officer oversaw the Water Governance project for 1½ years. The outcome of this project was a draft water policy statement for Solomon Islands. Additionally, the proposed Water Resources Legislation was also considered and recommended for tabling as a Bill to Parliament.

The national IWRM planning was initiated under the EU-IWRM component in 2009. Fourteen Pacific Island countries were involved in the project. In 2009 consultations were held to set up a national inter-sectoral committee to coordinate the IWRM Planning process; a proposed National Inter-sectoral Water Coordinating Committee (NIWCC) was set up. The NIWCC acted as the APEX Body to advise government on water issues and sustainable development.

The IWRM planning process initiated the collaborative approach to water resources management prior to the pilot project. Since its inception the planning process called for a change in paradigm whereby policy reform based on the IWRM approach meant that sectoral isolation and development should be a thing of the past. The IWRM project therefore set up the project steering committee and acts as the advisor and implements the project upon approval and endorsement of activities. In fact the stakeholders knew and were part of the project's implementing body. The major steps by the project were lessons learnt from it and resulted in the formulation of the WATSAN Policy and Plan towards

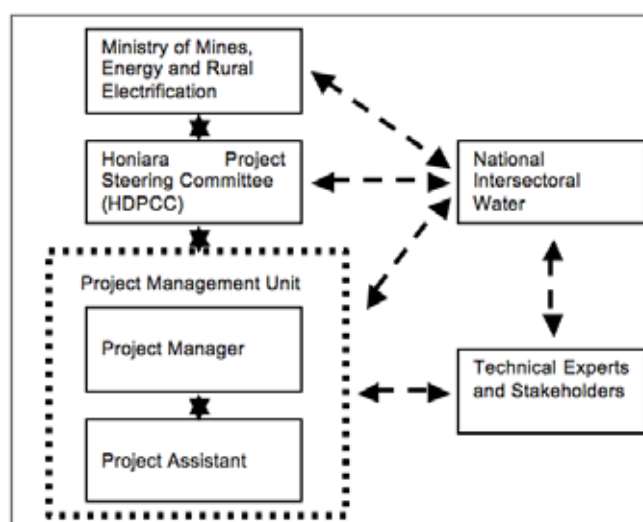
the end of the IWRM pilot project. The IWRM approach from "ridge to reef" and "community to cabinet" was incorporated into the policy and implementation plan.

6.2 Improving National Coordination for IWRM

Prior to the project there was no integrated coordinating body for the management of water resources in Honiara. The target of the project was to establish a National APEX Body with multi-sectoral membership. The establishment of the PSC was the precursor to the establishment of the NIWCC. The NIWCC has a Terms of Reference upon which to establish and work from. Membership is a representation of government, NGO's and civil society.

Cabinet endorsed the NIWCC in 2012. The NIWCC in September 2013, facilitated by an international consultant, produced the draft National IWRM Policy and Plan that is now planned for Minister's approval prior to a cabinet paper submission for government endorsement. The NIWCC is now the overall steering body that will give advice on policies, plans and legislation and recommend actions that are related to water, sanitation and the environment, consulting with and advising to government. They will act upon water resources, sanitation and water-related challenges and opportunities. An additional function of the NIWCC is to provide the platform upon which water resources governance and sanitation aspects are discussed and resolved.

The following diagram highlights the NIWCC structure and links to other national committees.



6.3 National IWRM Planning

In 2013 the NIWCC formulated the national Water Resources and Sanitation Policy and its corresponding implementation Plan prepared for endorsement by Cabinet.

The WATSAN policy and plan was formulated as a result of lessons learnt from the IWRM project and also reviewing past work already completed by the various committees and projects. The “ridge to reef” and “community to cabinet” approach by the project influenced the need to specifically address pressing issues and fill in gaps that were not seen before. Since the policy is pitched at the national level, a wider audience comprising of the cabinet endorsed NIWCC and other private national consultants were invited to contribute to the policy. The integrated approach to water management was seen as the key lesson from the project that resulted in the final draft of the policy and plan.

Facilitated by an international consultant, the new Water Resources and Sanitation Policy and Plan were formulated using the IWRM approach. Based on the national water, sanitation and climate outlook formulated in 2011, the WATSAN Policy and Plan were completed. The Policy and Plan are a complementary set, the policy provides the vision and the plan lays out the specific interventions to achieve it. The Water Resources and Sanitation Plan includes the following elements:

- purpose, values, vision statement and a mission to work towards.
- challenges to be addressed and the strategies to implement the Plan
- details of activities that need to achieve the policy objectives.
- Monitoring of the implementation plan and resources including financial arrangements





7. Capturing Lessons Learned for Replication and Scaling-up of IWRM Best Practice in Solomon Islands

7.1 Lessons Learned

Some of the lessons captured during project implementation included the setting up of community committees as a means to deliver activities between the PMU and local communities that ranges from awareness on catchment conservation and self financing as incentives, consultations and activities involvement to obtain information and hydrological monitoring Representatives of the community also became part of the steering committee to plan, execute and monitor progress.

Secondly, the (SIWA) Water Services provider embarked on a Water Use Efficiency and Demand Management activity where it proved that leakage contributed to large losses in water production by carrying out night time step tests at various locations in the water distribution pipeline (Mbokonavera 1-5 areas). Capacity building on leakage testing equipment and procedures with new field staff and confidence in results from the data recorded in the tests made the exercise useful to solve the longstanding issue of leakage at most of Honiara's water supply.

Thirdly, the PMU worked with the Steering sub-committee also embarked on a Water Safety Planning formulation exercise. Staff from the SIWA, Environmental Health (Ministry of Health & Medical Services) and Honiara City Council went through a hazards and risks training before completing field assessments at all of Honiara City's water sources, distribution, treatment and consumer outlets. It was a new approach to water safety and public health using the multi-barrier approach to safe water supply. A Water Safety Plan was drafted for the Water Services Provider (SIWA) to implement if endorsed; this can be used to other water supply systems throughout the country.

7.2 Replication and Scaling-up

A great example of replication of project activities comes from the use of water usage assessments in the city to determine where there are leakages. Honiara City has population of more than 60,000. Although

Solomon Water has received additional funding to develop more groundwater resources, estimates from past assessments on water losses due to leakages account for more than 40%. The pilot project on WUE/WDM for the Mbokonavera 1-5 zone supplies only an estimated population of less than 3,000 people. Solomon Water has now secured extra funds to replicate WUE/WDM and also extended activities to reduce Non Revenue Water (NRW) at about ten sites around the city.

There is in principal a formulated strategy in place but it was clear that "seeing the need" based on data and information obtained from previous assessments gives a baseline and combined with results presented on the project are means of progressing replication and scaling-up to improve livelihoods and reduce stress on both communities and the environment.

The Solomon Islands Replication and Scaling Up Strategy can be found in Annex 8.

To date replication and scaling up activities are evident within the project area in Honiara City. Priority areas in water use efficiency and leaks reduction are funded by bilateral donors and result in the increase in increased facilities for water production, including increasing pipelines and non-revenue-water approaches through meters installations at every residential and business area. Similarly, water quality issues are solved by installing a sedimentation facility to reduce the amount of particles into the supply line for consumers.

However under this strategy there are plans to use the IWRM approach to implement a national project that has component on climate change adaptation for six sites in six provinces in Solomon Islands. The goal of this project is to use the "ridge to reef" and "community to cabinet" approach in communities and urban centres to address sustainable water management as adaptation measures under future climate change scenarios. Funding is now secured to implement this national GEF-LDCF in the next 4 years from mid-2014.



8. Planning the Transition from IWRM to the Regional Ridge to Reef Initiative

8.1 Scaling-Up to broader Integrated Land, Water and Coastal Management

The priority actions of the IWRM Project has been to reduce stress on water distribution pipelines by increasing water pressure and water supply to water users. Secondly, protecting water catchments to maintain water resources quantity and quality from the main water source will reduce sediment into rivers and springs at customary-owned land outside the city boundary. Thirdly, the Water Resources and Sanitation Policy and Plan based on the IWRM approach are completed and awaiting cabinet endorsement.

Based on these priority actions there exists the governance mechanism once the policy and plan are endorsed as national documents that addresses issues relating to water resources, pollution due to unsustainable sewerage disposal to coastal areas and monitoring

pollution into rivers and marine life. Furthermore, if there is no remedy to the continuous disposal of raw sewerage from residents to the shorelines, pollution of the coastal areas will not be reduced and will destroy coral reefs and fish contaminated.

Given the different Implementing Agencies of the R2R and GEF-STAR programmes in the country, the coordination may be an issue especially the formation of new committees under each project. Like all aid donors, each has their own requirements already spelled out.

Under the new R2R Project the Steering Committee can still remain as the previous IWRM Project but will be part of the other GEF-STAR programme and will identify areas that need addressing where relevant. A high committee may be under the GEF-STAR may be appointed to answer and ask questions between relevant stakeholders and the project office. Likewise the R2R may find gaps in the sister projects and assist to implement some relevant activities to support it.





Annexes

Annex 1: List of Committee Members and Photograph	23
Annex 2: Committee Terms of Reference	24
Annex 3: Stakeholder Analysis and Engagement Action Plan	26
Annex 4: Project Logframe	27
Annex 5: National IWRM Results Note	35
Annex 6: Awareness Materials Developed and Media Coverage	41
Annex 7: Participatory Monitoring and Evaluation Plan	42
Annex 8: Replication and Scaling-up Plan	46
Annex 9: IW R2R logframe	47

Annex 1: IWRM Project Steering Committee Members

<p>Isaac Lekelalu GEF IWRM Project Manager Deputy Director Water Resources Ministry of Mines, Energy and Rural Electrification P O Box G37, Honiara, Solomon Islands Email: i_lekelalu@hotmail.com Phone: + 677 21522</p>	<p>Charlie Bepapa GEF IWRM Project Manager Director Water Resources Ministry of Mines, Energy & Rural Electrification Email: c_bepapa@mines.gov.sb Phone: +677 21522</p>	<p>Name: Richard Molea Position: Senior Program Officer Agency: Ministry of Mines & Energy Email: richie123@hotmail.com Phone: 21522</p>
<p>Name: George Titiulu Position: Principal Health Officer Agency: Environmental Health Email: Phone:</p>	<p>Name: Edward Danitofea Position: Senior Environment Officer Agency: Ministry of Environment Email: Phone:</p>	<p>Name: Jim Damusaru Position: Lecture Agency: SI University Email: Phone:</p>
<p>Name: Joslyn Position: Women Dev. Officer Agency: Ministry of Women, Youth & Children Email: Phone:</p>	<p>Name: Watson Puiahi Position: Director Agency: NGO – Ilukim Solomon Islands Email: Phone:</p>	<p>Name: Peter Pukuvati Position: Chief Agency: Kongulai Community Email: Phone:</p>
<p>Name: Primo Pukukesa Position: Chief Agency: Kovi Community Email: Phone:</p>	<p>Name: F.Ahikau Position: Senior Climate Officer Agency: Ministry of Environment Email: Phone:</p>	<p>Name: Jack Fiiomea Position: Civil Engineer Agency: Rural Water Supply/EHD Email: Phone:</p>
<p>Name: Dickson Manongi Position: Director Agency: Public Health Lab/EHD Email: Phone: 38871</p>	<p>Name: Ray Andresen Position: Manager Engineering Agency: Solomon Water Email: Phone: 23985</p>	<p>Name: Kedson Position: Principal Forest Officer Agency: Ministry of Forest & Research Email: Phone: 21521</p>



Annex 2: IWRM Project Steering Committee ToR

The Honiara Demonstration Project Steering Terms of Reference (2013)

Honiara Demonstration Steering Committee for the GEF /UNDP/UNEP/ SOPAC /Solomon Islands Project entitled: *"Managing Honiara City Water Supply and Reducing Pollution through IWRM approaches"*

1.0 Introduction

The Honiara Demonstration Project Steering Committee (HDPSC) for the GEF/UNDP/UNEP/ SOPAC/Solomon Islands Project entitled: ***"Managing Honiara City Water Supply and Reducing Pollution through IWRM approaches"*** (hereafter called the Project) is established under the Project Document as follows:

"National Demonstration Project Coordination Committee" - required under the Regional Project Steering Committee (RSC) will be the primary coordinating body for the Project. Membership includes the designated national IWRM Focal Points who were involved in the design phase of the project, as well as selected members of government Ministries, Statutory Bodies, NGOs and communities within the project intervention areas.

Its role will be to provide technical inputs and advice to the project and to guide the National Project Management Unit (PMU) in the implementation and monitoring of the overall pilot project. The HDPSC will also provide a forum for reviewing and resolving concerns, review and approve annual work-plans and budgets, and provide a forum for stakeholder participation.

Draft Terms of Reference for the HDPSC are as follows:

2.0 Honiara Demonstration Project Steering Committee (HDPSC)

A specific responsibility of the HDPSC will be to provide technical inputs and advise to the demonstration project. The HDPSC shall:

- Be comprised of up to 15 members, including the IWRM Focal Point, PMU staff, NGO representatives as the agenda of the HDPSC dictates and community representatives including a landowner representative. The Ministry of Mines & Energy, on behalf of SI Government, as the implementing Agency, IWRM Focal Point will chair the Meetings, and the national Project Coordinator will act as the Secretary of the HDPSC. UNDP will participate as the ex-officio member;
- Provide governance assistance, policy guidance and political support in order to facilitate and catalyze implementation of the project, and to ensure relevant project outcomes are appropriately incorporated into other national policies, programmes and actions;
- Annually review program progress and make managerial, technical and financial recommendations as appropriate, review and approval of annual reports, budgets and work-plans; and,
- Serve as liaison and links to the other national GEF projects ensuring that project activities links are consistent with the overall national framework, including the IWRM project.

3.0 Terms of Reference for the Honiara Demonstration Project Steering Committee (HDPSC)

In the light of the above, the following membership and Terms of Reference have been prepared for consideration by the First Meeting of the HDPSC.

1. MEMBERSHIP OF THE COMMITTEE

1.1 Full members of the NDPCC shall consist of representatives from government ministries, NGOs and communities including landowner representative relevant to the demonstration project.

1.2 UNDP will participate as the ex-officio members of the HDPSC;

1.3 The HDPSC shall elect a Chairperson and a Vice-Chairperson from amongst its full members with responsibility for chairing each formal meeting of the Committee and for acting as Chairperson and Vice-Chairperson of any meetings convened during the subsequent inter-sessional period;

1.4 The HDPSC may agree, by consensus at the commencement of each meeting to co-opt additional experts as observers or advisors to any meeting or meetings of the Committee or part thereof, as the committee shall deem appropriate.

2. SECRETARIAT OF THE COMMITTEE

2.1 The National Project Coordinator shall act as Secretary to the meetings of the Committee.

2.2 Staff of the Project Management Unit (PMU) and Water Resources Division, Ministry of Mines and Energy (MMERE) may provide Secretariat and technical support to the meetings of the HDPSC as required.

3. MEETINGS OF THE COMMITTEE

3.1 The PMU shall convene regular quarterly meetings of the HDPSC immediately following the IWRM National Inception meeting.

3.2 *Ad hoc* meetings may be convened by the Chairperson:

- when a majority of the Committee members make a request for such a meeting to the Project Management Unit;

- at the request of the Project Management Unit when circumstances demand.

4. TERMS OF REFERENCE

The HDPSC shall operate on the basis of consensus to:

- i. Provide direction and strategic guidance to the national Project Management Unit (PMU) and to their respective organisations regarding project implementation and execution of agreed activities over the entire period of the project;
- ii. Meet on a quarterly basis during the operational phase of the project to guide the timely execution of project activities, particularly National Demonstration Projects;
- iii. Receive, review, and approve reports from the Project Management Unit (PMU) regarding the outputs and outcomes of project activities;
- iv. Assist the Project Management Unit in ensuring co-ordination among national demonstration projects and other national level activities undertaken during the course of the project to further enhance national capacity to develop integrated approaches to water resource management;
- v. Review stakeholder involvement in project activities and take action where necessary to ensure appropriate levels of government, NGO, community, and private sector engagement;
- vi. Ensure compatibility between the activities of national demonstration projects and other national level activities for Integrated Water Resource Management;
- vii. Review and evaluate progress in implementation of the project, and provide guidance for improvement to the PMU when necessary;
- viii. Approve annual progress reports for transmission to the SOPAC Secretariat and UNDP
- ix. Work with the PMU and National Lead Agencies in mainstreaming integrated, reef-to-ridge approaches to water resource management and the replication of project successes at the national level;
- xii. Agree at their first meeting: a) the membership, meeting arrangements, and terms of reference of the committee; and b) such standing orders and manner of conducting business as may be considered necessary by the committee.

5. CONDUCT OF COMMITTEE BUSINESS

The Committee shall operate and take decisions on the basis of consensus, regarding any matter relating to project execution that has national significance.

Where full consensus cannot be achieved in reaching agreement during a full meeting of the Committee, on any matter relating to project execution that has national significance, the PMU shall, in consultation with the Chairperson, facilitate negotiations during the subsequent inter-sessional period with a view to seeking resolution, and will report the results of these negotiations to the Committee members.

6. OTHER MATTERS

Notwithstanding the membership and terms of reference contained in this document the HDPSC shall have the power to amend, from time to time, the membership and terms of reference of the Committee.

7. LIST OF MEMBERS FOR THE HDPSC

1. Solomon Islands Water Authority (SIWA)
2. Honiara City Council (Environmental Health Division)
3. Water Resources Division (MMERE)
4. Geological Survey Division (MMERE)
5. Ministry of Forest & Research (Forest Resources Management Division)
6. Environment & Conservation Division (MECDM)
7. Meteorological Services Division (MECDM)
8. Climate Change Division (MECDM)
9. Women Development Division (MWY&CA)
10. Agriculture Research Division (MAL)
11. Kovi & Kongulai Landowners
12. Solomon Islands College of Higher Education (SICHE)
13. Live & Learn Education (SI)
14. National Public Health Laboratory (MHMS)
15. Ministry of Lands & Housing



Annex 3: Stakeholder Analysis and Engagement Action Plan

Country __ SOLOMON ISLANDS

Country Stakeholder Engagement Analysis and Plan

GEF-Pacific IWRM Project

Stakeholder Analysis		Action plan for stakeholder engagement									
Demonstration Project Component		1	2	3	4	5	6	7	[For inclusion in annual workplan (and budget) if appropriate]		
Component focus	2 Key interests, concerns	3 How does the project affect them?	4 How supportive will they be? ++; +; =; -; --	How much influence Very 5 - 0	6 Priority to engage Top 5 - 0	7 What do we need / want them to do?	8 What (& how) do we do to engage them? (to get what we need)	9 When do we engage them?	10 Who leads?		
1. SIWA (Ray, Benjamin, Marista)	Water sources assessment, demand & management	Staffing level, capacity to support project, delivery of project tasks to improve security of supply	++	5	5	Support through technical and co-financing, reporting and consultancies	Provide relevant information, expertise and vehicle to carry out project activities	Since Project Inception	Engineering Services Division		
2. Honiara City Council (Environmental Health) Tom, George	Water Quality Monitoring under Water safety Planning component	Support through enhanced reporting of water quality for Honiara water for increased public confidence	++	5	5	Support staff to provide information, assess risks assessments & consultancies	Provide additional support through National Public Health Lab for sampling items, reagents	Year 3 of Project (2011)	Environment Health Division		
3. National Public Health Laboratory, MHMS (Dickson, David)	Water supply monitoring for faecal coliforms under Water safety Planning	Support for water quality analyses for all Honiara water supply strategic locations to report on	++	5	5	Support staff through reporting of water quality samples for Honiara City	Support Lab through reagents, equipment and reporting	Year 3 of Project (2011)	National Health Lab Division		
4. Water Resources Division (MMERE) (Isaac, Michael, Richard)	Hydrological Monitoring, Catchment Surveys & Land negotiations	Data collection - rainfall, flow and landowners negotiations	++	5	5	Monitoring water sources (current and future) for Honiara City water. Landowners for water sources installations	Support staff to monitor and collect hydrological data at selected sources for Honiara City	Year 1-5 of Project	Water Resources Division		
5. Landowners of Kovi, Kogulai and Mataniko water catchments (Peter, Primo, Savino)	Kovi, Kogulai, Mataniko water sources (current and future) for Honiara Supply	Project to consult for catchment surveys, hydrological monitoring and land acquisitions	++	5	5	Engage landowners to provide support for project activities, awareness, coordinate and consultancies	Request community support through meetings venue, local guides, fund project activities within critical areas	Year 1-5	Kovi, Kogulai and Mataniko Catchment Communities		
6. Environment & Conservation Division (MECDM) (Edward D)	Catchment Management, Environment Impacts Assessment (EIAs)	Support Project through staff allocation and regulatory means - Environment Act 1998	++	3	3	Provide information through PSC Meetings and other consultancies	Request assistance from staff to assist in impacts assessments & reporting	Year 3-5	Environment & Conservation Division		
7. Meteorological Division (MECDM) (Festus A)	Hydro-meteorological information for catchment surveys & monitoring/forecasting	Provision of reliable climate data to support water management due to seasonal & extreme events	++	3	3	Collaborate with Project office in weather and seasonal forecasting through data analyses	Request information on Seasonal Climate Outlooks & reporting	Year 3-5	Meteorological Services Division		
8. Forest Resources Management Division (MFR) (Billy T, James I)	Catchment Management & surveys for forest resources	Forest resources information as logging concessions pose threats to water sources	++	3	3	Provide forestry inventory information on GIS database	Collaborate through local consultants for data including regulatory aspects	Year 3-5	Forest Resources Management		
9. Geological Survey Division, Mines & Energy (Douglas B)	Catchment Surveys for hydro-geological data & geochemical & geo-hazards	Hydro-geological investigations & reporting for catchment drainage behaviour	++	3	3	Provide geological information	Reporting and engage in field surveys for selected catchments	Year 3	Geological Survey Division		
10. Women Development Division (Honiara City) (Janet, Eva)	Awareness campaigns, capacity building, training facilitator	Promote behavioural change, capacity through simple water supply maintenance	++	4	3	Support project through information dissemination and IWRM advocacy	Involve with them during awareness campaigns as mass media	Year 3-5	Women Dev. Division (MWY&CA), Honiara City Council		
11. Agriculture Research Division (MAL)/SLM Project (Maclean V, Jerry Z)	Catchment Management relating to land use for sustainable farming practises	Promoting sustainable land management practises information to promote sediment load reduction to water sources	++	3	3	Information dissemination through mass media and assessments	Involve them during awareness campaigns and field surveys	Year 3-4	Agriculture Research Division/SLM Project		
12. Solomon Islands College of Higher Education (SICHE) (Director Natural Resources)	Promoting IWRM in Environment Studies curricula for students using the "ridge to reef" concept	Final year students may request to be involved in water resources management	+	2	2	Indicate when Project activities coincide with their studies/research	Involve students to carry out project activities while completing their research towards an academic assessment	Year 3-5	School of Natural Resources (SICHE)		
13. Live & Learn Education (SI) (Watson P)	Promoting IWRM through provision of existing materials under a MOU	Minimal as LL(SI) is a funded organisation but awareness materials are being used by the project	++	2	3	Promote IWRM by accessing information from them & advise	Involve them through Steering Committee and media Campaigns	Year 2-5	Project Manager (LLSI)		

Annex 4: IWRM Logframe

	Output	Key Indicators	Means of Verification	Assumptions/Risks
1	Component 1 Development of integrated Kovi/Kongulai catchment management plan and inclusion of area based management into National policy, planning and legislation framework	An integrated Kovi/Kongulai catchment management plan within an enabling policy and financial framework	Published Plan endorsed by Cabinet and supported by Policy	Capacity to influence political process to establish enabling policy and legislation; Significant changes in enabling environment; Including but not limited to political and financial stability, political commitment and changes in legislation and policy; capacity to attract/retain suitably qualified personnel
1.1	Output Policy and legislation enabled to mainstream IWRM and integrated catchment management.	Changes to national legislation and water resource policy to mainstream IWRM including integrated catchment management	Promulgated Legislation and Policies	Reliant on co-funded activities, with associated funding, commitment, integration, resources and timing concerns; Capacity to influence political process to establish enabling policy and legislation
1.1.1	Indicative Activities Review legislative requirements to enable integrated catchment management.	Report recommending strategies for mainstreaming IWRM into national legislation and/or policies	Accepted by National Water Committee	
1.1.2	Develop a strategy for endorsement by Cabinet of IWRM and to mainstream integrated catchment based management into legislation and national policy	NEC support for policies Legislative support for Catchment/Area Management Advisory Committees	Promulgated Legislation and Policies	
1.1.3	Develop draft legislation and/or policies as identified in review to establish IWRM within National Water Policy and provide a legal framework for integrated catchment based management	Draft Legislation and Policies tabled for Cabinet endorsement	Cabinet Decision	
	Audience - Stakeholders and Politicians; Product - Meetings, Review Document, Output	Awareness Material, Draft Legislation; Distribution - Stakeholders and Public		
1.2	Establish and support the Kovi/Kongulai Catchment Management Advisory Committee (KKCMAC), a multi-stakeholder committee comprised of government, civil society organisations, private sector and community representatives responsible for the preparation and implementation of the Kovi/Kongulai Integrated Catchment Management Plan	Establishment of a Multi-stakeholder Kovi/Kongulai Integrated Catchment Management Committee (KKCMAC)	Minister endorsement of KKCMAC	Political and institutional resistance to proposed governance structures; Significant changes in enabling environment, including but not limited to political and financial stability, political commitment and changes in legislation and policy
1.2.1	Indicative Activities Develop governance framework for KKCMAC, including Terms of Reference, roles and responsibilities and legislative and institutional links	Terms of Reference Roles and Responsibilities of members identified.	KKCMAC endorsement	Political and institutional resistance to proposed governance structures; Significant changes in enabling environment, including but not limited to political and financial stability, political commitment and changes in legislation and policy
1.2.2	Develop support structure for KKCMAC, including an secretarial capacity	Executive support appointed and interim finance in place	Permanent Secretary and Steering Committee endorsement	Capacity to attract and retain suitable candidates; Lack of funding and participant member support.
1.2.3	Establish KKCMAC	Appointment of KKCMAC members	Permanent Secretary and Steering Committee endorsement of KKCMAC	Capacity to attract and retain suitable candidates
1.2.4	Raise awareness and develop skills of KKCMAC	KKCMAC Role and Process Training	Training Report	KKCMAC members can be retained
1.2.5	Develop a business plan for KKCMAC that identifies options for sustainable financing.	KKCMAC Business Plan	MMERE supported Cabinet Decision	Political resistance to sustainable funding options. Potential politics of Agencies
	Audience - Kovi Stakeholders; Product - Meetings, Education and Promotional Material, Training workshops, Distribution - Kovi Stakeholders and Public			
1.3	Output An implemented Kovi/Kongulai Catchment Management Plan - A catchment based management plan developed through a rapid appraisal process involving community and stakeholder engagement, and assessment of currently available data and information.	Kovi/Kongulai Catchment Management Plan	Sponsored by KKCMAC Steering Committee and Cabinet Decision	Absence of enabling environment, political commitment and changes in legislation and policy; lack of development of enabling policy and legislation
1.3.1	Indicative Activities Collate and Coordinate technical, community and economic studies	Rapid Appraisal and Inclusion of Currently Available data and information	RA Analysis, KKCMAC and Steering Committee endorsement	Recruitment/retention of suitably skilled personnel; Information not available or unable to be accessed



	Output	Key Indicators	Means of Verification	Assumptions/Risks
1.3.2	Prepare Catchment Issues and Response Discussion Paper	Catchment Issues and Response Discussion Paper for consultation	RA Analysis, KKCMAC and Steering Committee endorsement	Recruitment/retention of suitably skilled personnel;
1.3.3	Develop Kovi/Kongulai Catchment Management Plan - developed through community engagement and best available information and taking into account development aspirations of communities	Draft Kovi/Kongulai Catchment Management Plan	KKCMAC and Steering Committee endorsement	Absence of enabling environment, political commitment and community/stakeholder support absent.
1.3.4	Declaration of Kovi/Kongulai as a protected catchment	Compliance with Kovi/Kongulai Catchment Management Plan	Minister of MEREto declaration required under SIWA Act 1992.	Absence of enabling environment, political commitment and community/stakeholder support absent.
Audience - Kovi Stakeholders, IWRM Steering C'tee and National Water task Force; Product - Meetings, Technical reports and summaries for general awareness; Water Stakeholders, Water Stakeholders and Public				
Output				
1.4	To Successfully commence implementation of the Kovi/Kongulai Catchment Management Plan	Compliance with Kovi/Kongulai Catchment Management Plan	KKCMAC Reporting	Lack of political will to support sustainable funding mechanisms
1.4.1	Identify KKCMAC support requirements, roles and responsibilities and funding mechanisms	KKCMAC support agencies aware of roles and responsibilities and funding mechanisms	KKCMAC Reporting	Capacity to attract/retain appropriate candidates
1.4.2	Establish executive support unit to implement the Kovi/Kongulai Catchment Management Plan under KKCMAC governance, including reporting and auditing	Ongoing Catchment Management	KKCMAC Reporting, Annual Status Reporting	
Audience - Kovi Stakeholders, IWRM Steering C'tee and National Water task Force; Product - Meetings, Distribution - Kovi Stakeholders and Public				
Output				
1.5	Replication Strategy - A strategic document identifying catchment management needs at a national level, identifying mechanisms for transferring learnings and tools and key policy and financial enabling factors, revised to identify lessons and tools as they become available	Replication Strategy	KKCMAC Sponsorship and National Water Committee endorsement	Significant changes in enabling environment, including but not limited to political and financial stability, political commitment and changes in legislation and policy; lack of development of enabling policy and legislation
1.5.1	Indicative Activities Develop Replication Strategy aligned with recommended institutional changes for replicating the project learnings and outcomes nationally and regionally	A strategic document identifying catchment management needs at a national level, identifying mechanisms for transferring learnings and tools and key policy and financial enabling factors	KKCMAC Sponsorship and National Water Committee endorsement	Significant changes in enabling environment, including but not limited to political and financial stability, political commitment and changes in legislation and policy; lack of development of enabling policy and legislation
1.5.2	Implement Replication strategy	Replication implementation Strategy updated on an annual basis to incorporate learnings and tools	National Water Committee	Significant changes in enabling environment, including but not limited to political and financial stability, political commitment and changes in legislation and policy; lack of development of enabling policy and legislation
Audience - National Water task Force; Product - Meetings and Documentation; Distribution - Water Stakeholders and Politicians				
Output				
1.6	National IWRM Plan developed and implemented incorporating best IWRM and WUE approaches	National IWRM Plan endorsed by Cabinet by mid-2012	Cabinet minutes	Significant changes in enabling environment, including but not limited to political and financial stability, political commitment and changes in legislation and policy; lack of development of enabling policy and legislation
		Discrete Budget Line for IWRM by Jul 2013	Solomons 2013 Budget	
		Best IWRM and WUE approaches defined for Solomons endorsed by NWTf	NWTF minutes	
Indicative Activities				
1.6.1	Define best IWRM and WUE practices for Solomon Islands	Review report endorsed by NWTf	NWC minutes	Capacity to engage appropriate expertise
1.6.2	Draft National IWRM Plan	Draft National IWRM Plan approved by National Water Task Force for consultation	National Water Task Force minutes	Significant changes in enabling environment, including but not limited to political and financial stability, political commitment and changes in legislation and policy; lack of development of enabling policy and legislation

	Output	Key Indicators	Means of Verification	Assumptions/Risks
1.6.3	Consultation on National IWRM Plan	Consultation report on National IWRM Plan approved by National Water Task Force	Interim National Water Task Force	Stakeholder support for National IWRM Plan
1.6.4	Implemented National IWRM Plan	National IWRM Plan endorsed by Cabinet by mid-2012 Discrete Budget Line for IWRM by Jul 2013 National budget allocated to IWRM increased by 20% by Jul 2013	Endorsement by Cabinet Solomons 2013 Budget	Significant changes in enabling environment, including but not limited to political and financial stability, political commitment and changes in legislation and policy; lack of development of enabling policy and legislation
1.6.5	National IWRM communication plan framework implemented	National IWRM communication plan endorsed by Minister with budget by July 2012	Budgets 2009 and 2013 Endorsement by Minister	Significant changes in enabling environment, including but not limited to political and financial stability, political commitment and changes in legislation and policy; lack of development of enabling policy and legislation
1.6.5	Multi-sectoral APEX body established	National body endorsed by Cabinet by July 2010	Cabinet Minutes	Significant changes in enabling environment, including but not limited to political and financial stability, political commitment and changes in legislation and policy; lack of development of enabling policy and legislation
Audience - National Water Task Force; Product - Meetings Documents Awareness Material for Consultation; Distribution - Executive Government, Water Stakeholders and Public				
1.7	National Indicator framework embedded in formal national reporting incorporating PM&E	National IWRM indicator framework endorsed by NWTFF	Cabinet minutes NWTFF minutes	Significant changes in enabling environment, including but not limited to political and financial stability, political commitment and changes in legislation and policy; lack of development of enabling policy and legislation
1.7.1	National Indicator framework embedded in formal national reporting	National IWRM indicator framework endorsed by NWTFF	Cabinet minutes NWTFF minutes	Significant changes in enabling environment, including but not limited to political and financial stability, political commitment and changes in legislation and policy; lack of development of enabling policy and legislation
1.7.2	Develop national capacity in PM&E	Country staff trained in monitoring and PM&E National adoption of PM&E approaches	Training assessment report endorsed by NWTFF Endorsement of incorporation of PM&E into national indicators endorsed by NWTFF	Ongoing stakeholder commitment to PM&E approaches
Audience - National Water Task Force; Product - Meetings Documents Awareness Material for Consultation; Distribution - Executive Government and Water Stakeholders.				
Component 2				
	Data collected & map produced with comprehensive understanding of size, location of catchments and significance of various land based activities impacting on quality and quantity of Honiara's water	A catchment wide planning strategy based on sound data developed enabling policy and financial frameworks resulting in the sustainable protection of the catchment	Catchment protected through either legislated or formal agreement	Significant changes in enabling environment, including but not limited to political and financial stability, political commitment.
2.1	Catchment survey	Survey undertaken	General topo map available Some sites known	Catchment boundary map produced Tambu places identified
2.1	Catchment survey	Survey undertaken	General topo map available Aerial photo available	Catchment boundary map produced Map produced
2.1.1	Topographic survey of Kongulai catchment, Rove Catchment and Komtito Catchment for boundary demarcation.	Locations identified		
2.1.2	Identify places of cultural importance			
2.1.3	Mapped data indicating vegetation cover,	Map produced	General catchment boundary map available	Catchment maps produced



	Output	Key Indicators	Means of Verification	Assumptions/Risks
2.1.4	Produce catchment maps clearly showing route of rivers, streams, wetlands, loggings, cultural sites, villages, land use, vegetation cover.	Catchment map		
Audience - Kovi Stakeholders, IWRM Steering Ctee and National Water Task Force; Product - Meetings, Technical reports and summaries for general awareness. Distribution - Kovi Stakeholders, Water Stakeholders and Public				
2.2	Hydrological/hydro-geological surveys			
Indicative Activities				
2.2.1	Data collection of - surface water flow, groundwater storage quantities, groundwater recharge and discharge rates, and seasonal and yearly variations including water balance studies	Monitoring established	Some data available	Long term data collected and analysed
Audience - Kovi Stakeholders, IWRM Steering Ctee and National Water Task Force; Product - Meetings, Technical reports and summaries for general awareness. Distribution - Kovi Stakeholders, Water Stakeholders and Public				
2.3	System for monitoring and reporting on Catchment Health established	Monitoring established	Annual reports	Capacity human and physical to undertake the work
Indicative Activities				
2.3.1	Set up monitoring of all catchment health, mainly the following five key indicators:			
2.3.1.1	hydrology (flow and seasonality)	Station(s) established, results collated and regularly analysed and reported	Annual reports	Capacity human and physical to undertake the work
2.3.1.2	physical form (stream bank and bed condition, presence of and access to Physical habitat)	Sampling designed and surveys completed, analysed and reported	Annual reports	Capacity human and physical to undertake the work
2.3.1.3	Streamside zone (quantity and quality of streamside vegetation)	Sampling designed and surveys completed, analysed and reported	Annual reports	Capacity human and physical to undertake the work
2.3.1.4	water quality (sediment load, nutrient concentration, turbidity, salinity and acidity); and	Sampling designed and surveys completed, analysed and reported	Annual reports	Capacity human and physical to undertake the work
2.3.1.5	aquatic life (diversity of macro-invertebrates).	Sampling designed and surveys completed, analysed and reported	Annual reports	Capacity human and physical to undertake the work
Audience - Kovi Stakeholders, IWRM Steering Ctee and National Water Task Force; Product - Meetings, Distribution - Kovi Stakeholders, Water Stakeholders and Public				
2.4	Acquisition or formal protection of catchment lands	Catchment quality preserved	Formal agreement or legislated protection of catchment	Significant change to current relationship between landowners and government. Sustainable payment for ecosystem services enabled. Successive customary and government leaders support PES.
Indicative Activities				
2.4.1	Awareness conducted	Awareness establish	Some awareness	Awareness program
2.4.2	Meeting with landowners	Meeting	Some meeting	Meeting
2.4.3	Meeting with SIWA since they already have existing agreements	Review agreement	Concern on agreement	Amend agreement
2.4.4	Establish agreements with landowners	Agreement	Lease agreement	Sign agreement
Audience - Kovi Stakeholders, IWRM Steering Ctee and National Water Task Force; Product - Meetings, awareness materials; Distribution - Kovi Stakeholders, Water Stakeholders and Public				
Component 3				
3.1	Improved institutional and community capacity in IWRM at national, provincial and catchment level	Institutional and communities empowered to manage catchment s of significance to the supply of water to the people of the Solomon Islands	Catchments under formal management plans	Significant changes in enabling environment, including but not limited to political and financial stability, political commitment.
Output				
3.1	A Community Engagement Strategy that facilitates increased engagement by identifying mechanisms for communicating issues, outputs and outcomes to key and marginal stakeholders	Communication strategy that facilitates increased engagement	Endorsement by KKCMAC	Changes in stakeholder roles, responsibilities and focus; Significant changes in enabling environment; Capacity to bring stakeholders together in defining acceptable risk

	Output	Key Indicators	Means of Verification	Assumptions/Risks
	Indicative Activities			
3.1.1	Collect and collate detailed community and stakeholder information base	Stakeholder and Community Profiles	Profiles and updates endorsed by KKCMAC, Steering Committee and Submitted to RPCU	
3.1.2	Develop community engagement strategy in consultation with key stakeholders to raise awareness and understanding of KKCMAC issues and facilitate participation in development and implementation of Kovi/Kongulai Catchment Management Plan providing for the marginalised and vulnerable and in particular women and youth.	Community engagement strategy	KKCMAC endorsement	Changes in stakeholder roles, responsibilities and focus; Significant changes in enabling environment, including but not limited to political and financial stability, political commitment and natural disasters and ongoing willingness for engagement
3.1.3	Implement and report on engagement strategy including participation data disaggregated by gender and youth.	Quarterly Community and Stakeholder participation reports	KKCMAC and Steering Committee endorsement and submission to RPCU	Capacity to bring stakeholders together and maintain their interest in participation
3.1.4	Record and report on lessons learnt in Community and Stakeholder engagement	Quarterly Community and Stakeholder engagement lessons learnt reports	KKCMAC and Steering Committee endorsement and submission to RPCU	Capacity to bring stakeholders together and maintain their interest in participation
Audience - Stakeholders National and Regional; Product - Meetings, Education and Promotional Material, Training workshops, Distribution - Stakeholders National and Regional and Public				
	Output			
3.2.	Participants have the interest and capacity to contribute to the development and implementation of the Kovi/Kongulai Catchment Management Plan	Stakeholder capacity is developed to a level that enables ongoing participation from all sectors across government, non-government organisations and the community in the Kovi/Kongulai Catchment Management Plan	Reporting KKCMAC, Steering Committee and RPCU	Changes in stakeholder roles, responsibilities and focus; Significant changes in enabling environment and willingness of participants to be engaged in capacity building.
	Indicative Activities			
3.2.1	Undertake capacity needs assessment for stakeholders, governance, technical and institutional needs	Completion of technical, governance, institutional, community and managerial capacity needs assessment, identifying long-term needs and priority areas for capacity building	Reporting KKCMAC, Steering Committee and RPCU	Assume that assessment is able to be representative of broad stakeholder interests, changing political and stakeholder focus may date the strategy rapidly
3.2.2	Develop capacity building strategy, incorporating awareness, partnerships and education, linked to engagement and communication strategies	Capacity building strategy, identifying strategies to address priority and long-term capacity needs, as well as strategies to maintain and build on existing capacity	Reporting KKCMAC, Steering Committee and RPCU	Changing political and stakeholder focus may date the assessment.
3.2.3	Review capacity building tools available adopt and modify as determined	Develop tools identified in capacity building strategy, with a focus on priority needs	Reporting KKCMAC, Steering Committee and RPCU	Availability and suitability of capacity building tools from like project nationally, regionally and internationally
3.2.4	Implement capacity building strategy through awareness raising campaigns, targeted workshops, partnerships, broad consultation, recruitment, education and use of toolkits	Annual reporting identifying reduced needs for lower capacity development and increasingly complex capacity development needs	Reporting KKCMAC, Steering Committee and RPCU	Availability and suitability of Personnel to deliver and maintain capacity development focus. A
Audience - Kovi Stakeholders; Product - Meetings, Education and Promotional Material, Training workshops, Distribution - Kovi Stakeholders and Public				
	Output			
3.3	General and public awareness for integrated water resources management	All awareness program implemented	Nil	Increase knowledge of IWRM project at local and national level
	Indicative Activities			
3.3.1	Produce awareness materials (quarterly newsletter, brochures, etc)	Quarterly newsletter, brochures, etc	Record of activities in quarterly reports	Availability of project staff and resources to undertake work
3.3.2	Awareness through radio, TV and website	Radio and TV Scheduling	Programmes and material, Web page	Availability of project staff and resources to undertake work
3.3.3	Awareness through workshops and seminars	Workshop Agendas	Workshop Minutes and attendance records	Availability of project staff and resources to undertake work
3.3.4	Community based awareness through women's group, churches, schools and landowners	Meeting agendas	Records of attendance and minutes.	Availability of project staff and resources to undertake work



	Output	Key Indicators	Means of Verification	Assumptions/Risks
	Audience - General Public; Product - Multi Media Awareness Material. Distribution - Public			
	Output			
3.4	Training and education for effective IWRM	Increase knowledge of IWRM	Nil	IWRM formally incorporated into school curricula
	Indicative Activities			
3.4.1	Incorporate IWRM into school curricula	Curricula developed and taken up	Curricula and its incorporation into Schools Curricula	Availability of Personnel with capacity to undertake curriculum development and acceptance by educational institutions
3.4.2	Organise workshops and seminars for stakeholders, consultants	Workshop Agendas	Records of attendance and minutes.	
	Audience - Secular and nonsecular Schools; Product - Documentation. Distribution - Education Sector Stakeholders			
	Component 4			
4	Water safety plan produced & implemented	Honiara city water supply quality consistently meets WHO Water Quality Standards	Water quality monitored and regularly reported, decreased incidence of water borne illnesses recorded in Honiara	SIWA Board and Executive Government enforcement of standards
	Output			
4.1	Water safety plan	All activities assessed	Some information available	Report produced
	Indicative Activities			
4.1.1	Review of land based activities (land use, industrial and residential waste) likely to impact water quality and supportive ecosystems within Honiara city.	Review undertaken	Workshop minutes and review report	Availability of Personnel with capacity to undertake review. Support of SIWA Board and management
4.1.2	Liaise with SIWA to produce the plan	Work on plan	Plan available	Support of SIWA Board and management
4.1.3	Based on data collected from catchment surveys and other activities, produce water safety plan	Work on plan	Plan available	Availability of Personnel with capacity to undertake review. Support of SIWA Board and management
4.1.4	Implement surface water and ground water quality monitoring program.	Monitoring established	Some data available	Support of SIWA Board and management
	Audience - SIWA and Stakeholders ; Product - Meetings Plan Documentation. Distribution - Stakeholders and Public			
	Component 5			
	Sustainable Groundwater Abstraction supplying Honiara	Groundwater production and quality sustained	Annual Production and Quality reporting	Support of executive government and adoption of legislative provisions enabling a licensing and permit system
	Output			
5.1	Management of Honiara groundwater resources			
	Indicative Activities			
5.1.1	Review and recommendations on access to ground water	Review undertaken	Workshop minutes and review report	Availability of Personnel with capacity to undertake review.
5.1.2	Consultations with commercial drilling coys	Consultation Meetings	Meeting minutes	Support of Executive Government
5.1.3	Development of a Honiara groundwater management plan	Work on plan	Plan available	Availability of Personnel with capacity to develop plan
5.1.4	Establishment of licencing/permits and conditions for bores	Monitoring established	Some data available	Support of executive government and adoption of legislative provisions enabling a licensing and permit system
	Audience - Water Sector Stakeholders and Executive Government ; Product - Meetings Plan Documentation, regulations. Distribution - Executive Government, Water Sector Stakeholders and Public			
	Output			
5.2	Monitoring of Honiara groundwater supply	Honiara groundwater abstraction rates managed and sustainable.	Annual reporting of abstraction rates.	Insufficient funding of monitoring programme by government
	Indicative Activities			

Output	Key Indicators	Means of Verification	Assumptions/Risks
5.2.1	Review undertaken	Workshop minutes and review report	Availability of Personnel with capacity to undertake review.
5.2.2	Sampling Programme designed	Design Documentation	Availability of project staff and resources to undertake work
5.2.3	Observation wells established	Wells drilled	Availability of project staff and resources to undertake work
5.2.4	Monitoring undertaken, analysed and reported on	Annual Monitoring Reports	Availability of project staff and resources to undertake work
Audience - SIWA and Executive Government - Product - Annual Reports. Distribution - Executive Government, SIWA, Water Sector Stakeholders and Public			
Component 6			
6	Honiara's water supply system's non revenue water reduced to economically sustainable levels.	Annual reporting of NRW	Support of SIWA Board and management
Output			
6.1	Water loss and wue improved	WUE improved from Baseline	Availability of Personnel with capacity in WDM.
Indicative Activities			
6.1.1	Leakage and other cause of water loss identified	survey report	Availability of equipment and Personnel with capacity to undertake survey.
6.1.2	Losses audited	report	Availability of equipment and Personnel with capacity to undertake survey.
6.1.3	Survey of losses and wastage in selected water supply distributions zones	survey report	Availability of equipment and Personnel with capacity to undertake survey.
6.1.4	conduct flow monitoring (night/day) in priority zones	report	Availability of equipment and Personnel with capacity to undertake survey.
Audience - SIWA and Executive Government - Product - Annual Reports. Distribution - Executive Government, SIWA, Water Sector Stakeholders and Public			
Output			
6.2	Demand and supply WUE Plans at both levels		Support of SIWA Board and management
Indicative Activities			
6.2.1	Workshops and draft WUE Plans	Plan	Availability of project staff and resources to undertake work.Support of SIWA Board and management
6.2.2	Skill needs analysis	Report	Availability of project staff and resources to undertake work
6.2.3	Implementation Plan	Annual reporting	Availability of staff and resources to undertake work.Support of SIWA Board and management
6.2.4	Monitoring Plan established, data collected analysed and reported	Annual reporting	Support of SIWA Board and management
Audience - SIWA and Executive Government - Product - Annual Reports. Distribution - Executive Government, SIWA, Water Sector Stakeholders and Public			
Component 7			
7	An integrated catchment management plan, developed through community engagement, a catchment wide planning strategy and based on sound modelling of reliable data, an enabling policy and financial framework, increased technical and institutional capacity incorporating flood warning and draught response systems.	Annual reporting	Significant changes in enabling environment, including but not limited to political and financial stability, political commitment and natural disasters
Output			



Output	Key Indicators	Means of Verification	Assumptions/Risks
7.1	Successful Project Startup	Project startup requirements achieved	Steering Committee and KKCMAC reporting, PCU Reporting
	Indicative Activities		
7.1.1	Recruit Project Manager and Project Assistant	Project Manager and Project Assistant implementing project	Steering Committee and KKCMAC reporting, PCU Reporting
7.1.2	Establish Project Management Unit office	Functional Project Management Office	Steering Committee and KKCMAC reporting, PCU Reporting
7.1.3	Re-visit project design with stakeholders and refine design and approach where necessary	Revised Logframe endorsed by PSC	Steering Committee and KKCMAC reporting, PCU Reporting
	Output		
7.2	Effective reporting and management	Deliverables being achieved as planned	Steering Committee and KKCMAC reporting, PCU Reporting
7.2.1	On site management of the Project by a PM with relevant expertise	Regular work plans. Achievement of Project milestones	Steering Committee and KKCMAC reporting, PCU Reporting
7.2.2	PSC established	NP	Steering Committee and KKCMAC reporting, PCU Reporting
7.2.3	Arrange and act as Secretariat to the regular meetings of the PSC	Minutes produced within 1 week of meetings and circulated to PSC	Steering Committee and KKCMAC reporting, PCU Reporting
7.2.4	Quarterly reports to PCU and Focal Point	Quarterly reports	Steering Committee and KKCMAC reporting, PCU Reporting
7.2.5	Annual reports to PCU and Focal Point	Reports on time to the PSC, Focal Points and PCU	Steering Committee and KKCMAC reporting, PCU Reporting
7.2.6	M&E system in place	Baseline socio economic and environmental survey by project of activity area (gender disaggregated); Monitoring of environmental indicators ongoing	Steering Committee and KKCMAC reporting, PCU Reporting
7.2.7	Monitor and facilitate cofunded inputs	Annual Cofunding report per Cofunding commitments	Steering Committee and KKCMAC reporting, PCU Reporting
7.2.8	Source additional funding to add value to project outcomes	New and additional cofunding	Steering Committee and KKCMAC reporting, PCU Reporting
7.2.9	Co-operate with external monitoring by PCU and IAS	Timely and effective support of reviews	Steering Committee and KKCMAC reporting, PCU Reporting
7.2.10	Project Completion Report drafted and submitted	Report evaluates project activities and provides recommendations for any follow-up.	Steering Committee and KKCMAC reporting, PCU Reporting

Implementing Sustainable Water Resource and Wastewater Management in Pacific Island



GEF PACIFIC IWRM PROJECT RESULTS

<http://www.pacific-iwrm.org/results>

RSC 5

Managing Honiara City Water Supply and Reducing Pollution via IWRM Approaches



Top 5 Project Results

1. Increased land-owners, community awareness and project support on the importance of water catchments through dissemination of key findings and results from catchment surveys specifically at the Kovi/Kongulai catchment and general public awareness on water resources management through wise water use and conservation through targeted water consumers and educational campaigns
2. Increased collaboration with primary stakeholder (SIWA) through the Leakage Team to implement water demand management (WDM), water use efficiency (WUE) activities at Mbokonavera 1-5 zone
4. Formulation of a Water Safety Plan (WSP) for Honiara City's water supply through collaboration between major stakeholders as the Ministry of Health & Medical Services (Environmental Health), Solomon Islands Water Authority (SIWA), Ministry of Environment & Conservation, Ministry of Mines & Energy (Water Resources) and Honiara City Council (EHD)
5. Formulation of the IWRM-based National Water Resources and Sanitation Policy and Plan (WATSAN) with planned Cabinet endorsement before end of 2013.

Mr. Isaac Lekelalu
i_lekelalu@hotmail.com

Water Resources Division, Ministry of Mines, Energy and Rural Electrification



1. PROJECT OBJECTIVE

The objective of the project is to promote best water management strategies and protection measures for Honiara city water resources to ensure there is sustainable reliable water supply and wastewater services in the Honiara City through the following mechanisms: IWRM Management Strategies, Policy and Legislative review and formulation; Water Safety Plan, Water Use Efficiency and Demand Management and Water Catchment Management.

2. RESULTS: PROCESS

Prior to project implementation was the consent agreement by the landowners of Kovi and later Kongulai to carry out a hydrological assessment of the Kovi stream, some 2 kilometres upstream of Honiara's main water intake. The aim was to monitor the flow over seasons on the water resources there in case the water provider (SIWA) needs to develop it in the future. With the IWRM project realized, the Kovi/Kongulai Community Group (KKCG) was established with 15 members, two of which are with the Project Steering Committee (PSC). The KKCG represents the Kovi/Kongulai water catchment through which the project works with. Up to 2011 most of the Kovi/Kongulai catchment surveys were completed and resulted in data and information about the catchment disseminated through community awareness. The community supported the project by involving them in field surveys and hydrological monitoring activities. Their interest was reinforced by assisting them to look at catchment conservation and in line with an eco-tourism business; to protect the catchment for the sake of water resources and at the same time generating income by promoting nature's beauty to people.

(2) INDICATOR#1: Sectoral engagement in formal multilateral communication on water issues

A target of the project was to increase engagement. This was achieved establishment of the Kovi/Kongulai Community Group (KKCG) and active response to workshops and meetings. The project had the opportunity to talk with the KKCG at every gathering commencing from the time of consent to enter their land until the launching of an Eco-tourism Plan for the community. Although men were represented more, women did take part and shared their views and opinion during each meeting.



Figure 1: Kovi/Kongulai Catchment Group (KKCG)

(2) INDICATOR #2: Proportion of community engaged in water related issues

Communities from Kovi and Kongulai were involved in workshops to gauge the people's perspective on how they interact with land and water from this important catchment; it supplies about 60% of Honiara's water supply. This culminated to a series of assessments with them to show them the value of land and water resources of which they are custodians hence the need to protect.

Facilitated by the Women Development Division and Honiara City Council, women from selected church and NGOs in Honiara took part in workshops on water demand management and water use efficiency at household level.

Awareness information to water consumers was distributed to water provider (SIWA) and during important national and international events. The on-going dissemination of information on importance of water sources, water use efficiency, demand management and water safety were part of mass media project campaigns. Although feedbacks from such distributions are not evident, it was envisaged that water users will make practical steps using the information provided if they were serious about water scarcity and water bills.



Figure 4: Women’s workshops on Water Demand Management and Water Use Efficiency

(2) INDICATOR#3: Project Design and PM&E plan implemented

The IWRM Pilot Project for Honiara City was endorsed by Cabinet in late 2009 with a cabinet decision to implement over 5 years. This resulted in the approval by government regarding its financial support during this period and the establishment of the Project Steering Committee comprising 15 members from government and civil society, land owners and an NGO. The Project Steering Committee (PSC) during the course of the project further established its sub-committees to oversee specific activities. A catchment assessment sub-committee and a water safety sub-committee were members of the PSC.



Figure 5: Members of the IWRM (Honiara City) Project Steering Committee

(2) INDICATOR #3: Multi-sectoral APEX Body in place

Prior to the project there was integrated coordinating body for the management of water resources in Honiara. The target of the project was to implement a National APEX Body with multi-sectoral membership. The establishment of the Project Steering Committee (PSC) is the precursor to the establishment of a National Intersectoral Water Coordinating Committee (NIWCC). The NIWCC has a Terms of Reference upon which to establish and work from. Membership is a representation of government, NGO’s and civil society. This will be the platform for dialogue and coordination of IWRM planning and implementation advice and recommendations. The NIWCC is endorsed by Cabinet in 2012. The NIWCC, facilitated by an international consultant has produced the draft National IWRM Policy and a Plan in September 2013 and now planned for Minister’s approval prior to a cabinet paper submission for government endorsement.



Figure 6: A meeting of the National Intersectoral Water Coordination Committee (NIWCC 2013)

(2) INDICATOR #4: Best IWRM and WUE approaches defined

As part of the Regional Action Plan (RAP) 1999, countries were chosen to formulate a new Water & Sanitation Outlook of which Solomon Islands was one. Formulation of the National Water Outlook (NWO) 2011 was completed with the help of a Professional Intern through the IWC's IWRM Masters Program. The NWO 2011 was a result of discussions and endorsement by the interim NIWCC (mostly PSC members) over a three month period.

Past projects regarding WUE and WDM were carried out to some extent. The IWRM Project in this case further considers the gaps in past projects and now targets additional zones. The project also takes into account water safety as part of the project intervention. In early 2012 the Project worked with the water provider (SIWA) to implement WUE/WDM at one its highest leakage zones in Honiara, Mbokonavera 1-4 residential area. Using past reports a leakage detection program was planned and completed. Funds were allocated to SIWA for this activity.

(3) INDICATOR #5: National staff across institutions with IWRM knowledge and experience

Before the implementation of the IWRM project there was limited knowledge amongst staff in Honiara of IWRM practices and concepts. There was limited capacity of SIWA staff to undertake the necessary activities to detect and respond to leaks. The project aimed to increase this capacity and knowledge base across national staff.

A Leakage Detection Team was established and on-going capacity is part of the project's intervention. Upcoming project activities at additional areas are anticipated with qualified and swift work completion in this area. Additional recruitment by SIWA is now in place to increase the number of staff while previous trainees now have the confidence to carry out leak detection activities and further train new staff under the Leakage Detection Team.

Personnel from SIWA and Environmental health participated in Water Safety Plan assessment training. Staff are now confident in describing the water supply distribution systems and identify the hazards and risks associated with the supply from source to consumer. Participants also included members of the water safety sub-committee who produced systems descriptions and completed hazards/risks identification assessments for Honiara City's water supply critical points.

Additional funding from another donor that runs concurrently with this project resulted in a staff from the Water Resources Division, Ministry of Mines and Energy who completed a postgraduate qualification in IWRM from the International Water Centre (IWC), Brisbane, Australia. This raises the number of qualified staff in the water resources sector.

Future plans to introduce IWRM as part of program at tertiary level at the national scale was also made in 2012 through the Solomon Islands National University (former SICHE). The curriculum panel, to which the Ministry is a member, has now included IWRM as part of a proposed Diploma course in Climate Change and Resources Management once approved by the University Board.



Figure 7 & 8: SIWA and EHD team on WSP fieldwork – systems description and hazards assessment.

(2) INDICATOR #6: Honiara Water Safety Plan

Prior to the IWRM project there were no water safety plans (WSP) for Honiara water supply. The target of the project was to formulate the plan and have it endorsed by the SIWA Management and implemented by end of project. The Water Safety Planning Sub-Committee for the project undertook necessary training to complete water systems assessment that will form the basis of the WSP. These system descriptions and hazard/risks assessments have been completed for all water sources. A draft WSP document is now completed led by SIWA with inputs from the WSP sub-committee.

(2) INDICATOR #7: Lessons learned incorporated into other projects and/or regulations

Prior to the project there was little sharing of knowledge gained in one sector with another or of applying lessons learned between projects. The target of the project is to demonstrate some aspect of replication by the end of project life. The coordination of the Kovi Kongulai Catchment Committee enhanced the understanding of the need to establish a management mechanism with a constitution or terms of reference for implementing plans or project such as the IWRM. Through this experience efforts are now being made to assist identification of donors and resource personnel for the implementation of the new Ecotourism Plan.

Additionally, the IWRM concept is now being used as the approach to prepare a project proposal on water sector adaptation to the impacts of climate change and variability at national level for six sites. As a prerequisite, the IWRM approach has been incorporated into the full project document and implemented upon approval of the project.

=====

3. RESULTS: STRESS REDUCTION

(3) INDICATOR #1: Population with access to safe water supply

Honiara residents had limited access to safe water supply prior to the implementation of the IWRM project. The target of the project was to cover 90% of residents with safe access to water supply.

Water Use Efficiency & Demand Management: Leakages Detection

Much of the water supply in Honiara is lost through high levels of leakage. Two night flow step tests confirmed very high leakages in both distribution and service lines within the pilot areas. A total of 414 connections were identified and confirmed in the project area. Only 33% of the connections were found to have operational water meters while the remaining 67% are suspicious; 21% buried or unidentified, 22% are direct lines, 15% disconnected, 4% vacant and 4% are illegal connections. It was found that out of 8 zones that were isolated with valves, three priority areas have leakages of more than 100 litres per minute.

A total of up to 500m of distribution pipes of distribution pipeline at Kaibia, part of the Mbokonavera zone was located as producing the highest leakage on the distribution system. These old galvanized pipes have been replaced with high pressure PVC pipes. Additionally new water meters at residential homes and those with no meters and illegal connections have been installed in the pilot areas.

Follow up step test at these sites, now designated as demand management areas (DMAs) are now being established. SIWA is now using the DMAs as permanent sites to continually monitor water flow in distribution pipelines and determine fluctuations associated with daily water use, leakages and illegal connections.



Fig 9 & 10: Meter replacement for Mbokonavera 1-5 by SIWA staff

WUE and WDM: Increased water supply hours and pressure

In high elevation areas of Skyline Ridge and Tehamurina, water hours have been increased from between 5 and 9 to 15 hours a day. Low-lying areas at Mbokonavera have been increased from 10 to 19 hours a day through a combination of reduction in leaks and increased pressure. Indirectly non revenue water (NRW) was reduced as a result of installation of new meters for non-operational and non-registered consumers.



Figure 11: SIWA Staff carrying out day & night leak detection tasks

Water Safety Plan: Water Quality Monitoring

Through weekly sampling of water supply sources and consumer taps, the Environmental Health Division and Public Health Lab monitor both chemical and microbiological status of water supply to confirm SIWA's weekly disinfection program under the Environmental Health Act and Regulations. From a regulatory perspective, SIWA is notified of all days, sampling points and the presence, if any, of total coliforms and *e.coli* in tap water to ensure timely corrective actions are taken.



Fig 12 & 13: Water sampling and analysis surveillance for Honiara water supply

Annex 6: Awareness Materials Developed and Media Coverage





Annex 7: Participatory Monitoring and Evaluation Plan

Participatory Planning, Monitoring, and Reporting Plan for the Solomon Islands GEF Pacific IWRM Demonstration Project Entitled:

“Managing Honiara City water supply and reducing pollution through IWRM approaches”

1. INTRODUCTION

There are multiple and varied planning, monitoring and reporting requirements as part of the GEF Pacific IWRM Project. These were discussed and agreed during the project’s Inception Workshop in September 2009 and were adopted as part of the operation of SOLOMON ISLANDS’ national IWRM demonstration project entitled: “**Managing Honiara City water supply and reducing pollution through IWRM approaches**”.

Participation and engagement of key project stakeholders including community groups and Non-Governmental Organisations [**Kovi & Kongulai Landowners and Live & Learn Education (SI)**], the project coordinating committee [**Honiara Demonstration Project Steering Committee**], national Lead Agency [**Ministry of Mines and Energy**], Cabinet, national development partners, and global donors in project planning, monitoring, and reporting was considered important in guiding the successful implementation of the project in Solomon Islands.

2. GUIDING PRINCIPLES

The key principles used in developing the project planning, monitoring, and reporting approach were that it should:

- primarily act to better inform an “*IWRM continuum of transition*” in the relevance, effectiveness, efficiency, results, and sustainability of investment in IWRM;
- facilitate good governance of demonstration project activities, including areas of project finances, coordination, planning, capture of lessons learned, and technical quality assurance;
- ensure efficient and cost-effective compliance of reporting requirements of the National Government of SOLOMON ISLANDS, SPC/SOPAC, UNDP, UNEP, and the GEF;
- ensure relevance of the information and data collected, and that data on project results can be rolled up and down, from “*Community to Cabinet*” and from “*Country to Global Donor*”; and
- Draw on participatory Most Significant Change (MSC) techniques which act to monitoring and validate reported project impacts on behaviour.

3. PLANNING, MONITORING, AND REPORTING FRAMEWORK

The general planning, monitoring, and reporting framework developed for operation through the Solomon Islands national IWRM demonstration project is summarised in Table 1. The timetable of activities is summarised in Table 1.

STEP 1

Project Planning

Since project inception project planning was the responsible of the PMU. The project Steering Committee is convened to aware members of the plan and implementing strategies of the project. On most cases, the PMU through the committee’s Chairmanship, asked inputs and advise regarding project activities. Amendments and resolutions about quarterly activities are then passed as the committee decides.

Community groups have representatives in the Steering Committee where quarterly activities are indicated through written notices or verbal communications. To date the landowners’ community have established a Catchment Group through which future engagement will be done. Prior to the Catchment Group establishment the PMU engages the likely community representatives indicated by their leaders (Chiefs).

The planning of project finances, activities and lessons learnt is mostly done by the PMU and in collaboration with the primary stakeholders. The Steering Committee is only notified on the outcomes of project spending at quarterly meetings. Project finances are controlled by the Lead Agency where disbursements are done without delay.

To date most lessons learnt from activities is yet to be tabled before the Steering Committee. Given the number of donor-funded projects being introduced into Solomon Islands, the PMU and committee members who are members to other national committees, works closely with other line Ministries to introduce these lessons for other upcoming project proposals. The IWRM approach is now being promoted and incorporated into upcoming projects such as climate change adaptation and water, agriculture (irrigation) and sustainable forests management.

As project activities advances the Steering Committee will be actively involved through our quarterly reporting by emails, notices and quarterly meetings; independent advice and recommendations will continually be sought.

STEP 2

Project Monitoring

The PMU, with advice from RPCU and based project each quarterly work-plan puts timeline to which activities should adhere to. Most of the project activities are monitored by the PMU and the committee notified on a quarterly basis.

Contracted assessments are done with the PMU and Lead Agency through established agreements. The timeline attached to the contracts are monitored by the PMU.

Catchment surveys on customary land for the project to date are done by local consultancies with guidance from landowners. Community groups (landowners) assist the PMU through advice on access to sites regarding permission, accessibility due to weather conditions.

The PMU, on advice from the RPCU, sets the budget for each contract and based on the local consultancy fees charged. To date most of the project results from consultancy work is yet to be reviewed by the Steering Committee. Since reports are mostly technical, a sub-committee will be used to gauge the results as soon as practicable.

Concerning project budget, the PMU admits that there are trends of quarterly under-spending of requested funds from RPCU. The Steering Committee was notified during past meetings and PMU will continue to works closely with the committee for advice to improve quarterly spending to meet its target through improved collaboration with primary stakeholders.

STEP 3

Project Reporting

Reporting of project activities to all stakeholders is the responsibility of the PMU. Since project inception the PMU's means of communication are through email, telephone and post office. It suggested that email will be used as means to relay messages of project updates. Telephone services are practical for community groups (landowners) and cases where emails are not responded to. Deliveries using the post are also used on urgent cases.

One of the issues encountered during reporting was that most committee members are not connected to emails in their offices hence responses were poor. Feedback for minutes of meetings is quite difficult to get on time under this circumstance. Reporting during Steering Committee meetings was a practical way of getting members informed about project activities and results.

Additionally, information about project results is done through meetings. For instance, catchment assessment reports are done through the Catchment Group (landowners), newsletter and pamphlets



about the status of project activities are distributed at committee meetings while radio broadcasts are done through the national service. Engaging the local TV station is another venue to let stakeholders aware about completed and anticipated activities as well.

Lead Agency reporting is done through email and ministerial correspondence. Quarterly reporting's are available and are submitted as required and is also incorporated into the Lead Agency's annual Reporting for government. The obvious reporting mechanism with the Lead Agency is done through the Heads of Division meetings whereby the Secretary is updated on current Ministerial and Project activities under their respective work-plans; the project will continue to use this as a venue to report on its activities.

Year	2010				2011				2012				2013			
Quarter	Q 1	Q 2	Q 3	Q 4	Q1	Q 2	Q 3	Q4	Q1	Q 2	Q 3	Q 4	Q1	Q 2	Q 3	Q4
Community Groups [Kovi & Kongulai Catchment Group, Honiara City residents]																
Participation in regular review of project outputs	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Inputs to preparation of quarterly work plans and budget	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Reflective review of project outcomes - workshops			X				X				X				X	
Annual review and inputs to lessons learned							X				X				X	
Annual review and planning of use of traditional knowledge/governance in project planning							X				X				X	
Storyboarding and structured video interview approach to identify Most Significant Change at community level					WW D 22/ 3		X		WW D 22/ 3		X		WW D 22/ 3		X	
National Coordinating Committee [Honiara Demonstration Project Steering Committee]																
Quarterly inputs to progress, financial, and lessons learned reports prepared by PMU/community groups	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
Quarterly review/endorsement of work plans and budget	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
Identification of quarterly needs	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X

for technical supports and preparation of recommendations based on known benefits and costs of options																	
Annual review of replication and scaling-up plans						X				X					X		
Annual review of quarterly reports and preparation of advice/guidance for community groups			X			X				X					X		
Annual endorsement of Project Implementation Review and preparation of advice for Cabinet/Congresses		X				X				X				X			
Lead Agency [Ministry of Mines and Energy]																	
Ongoing Oversight of Project Management Unit Staff																	
Ongoing review of procurement and reporting to ensure compliance with fiduciary standards of MoA parties																	
Quarterly review and signature of progress and financial reports for submission to SPC/SOPAC RCU	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	
Submission of annual PIR and annual summary of community workshop(s) to Cabinet			X				X				X				X		
Development Partners (UNDP and UNEP)																	
Review and feedback on annual PIR reports			X				X				X				X		
Submission of annual project results to global database			X				X				X				X		
Preparation of materials for global sharing of results							X				X				X		
Support to production of project experience notes and reports on results in global water for (e.g. IWC6&7)								X	IW C6							X	IW C7



Annex 8: Replication and Scaling-up Plan

Solomon Islands – Overview of replication strategies and planning

The GEF-IWRM Project in the Solomon Islands is implemented at pilot-level with set objectives, outcomes and the goal to sustainably manage the water resources of Honiara City through an integrated approach using the “ridge to reef” and “community to cabinet” concept. Best practices in water resources management commencing at water catchments, distribution and user are promoted; this involves communities (landowners), the water authority (SIWA) and other regulatory and civil society. The lessons learnt from this pilot project will be used and transferred to other locations in the country and within the project area; additional coverage to better improve water resources management, will be further considered for funding.

Since the project covers components relating to catchment management, water safety plan and water use efficiency for Honiara City, the activities that are being implemented or planned using existing strategies will form the replication plan. The approaches to which activities are implemented so far are as follows:

- **Catchment Management Plans**
 - Awareness campaigns by PMU with Landowning communities including land entry consent and agreement to install recorders assess resources and establish Catchment Community; workshops and meetings using participatory discussions
 - Engage landowners to assist local consultants in catchment assessment/field work including social-economic surveys
 - Initiate other community-based projects to promote financial livelihoods and develop partnerships
 - Identify primary landowners to establish venue for land acquisition and registrations and catchment declaration of catchment areas using relevant legislation
 - Promote sustainable land use at catchments that are threatens water sources using land zoning

- **Water Use Efficiency Plans**
 - Water Authority to locate pilot areas within Honiara City using available resources and support from PMU to facilitate surveys, leakage and determine cost of pipeline replacements
 - Collaborate with consumers about water supply issues and reporting to reduce wastage
 - Raise awareness through information dissemination at strategic locations (e.g. Billing Counters, schools awareness, radio & TV) at household, offices and industry
 - Promote water efficient appliances at household and commercial levels through retrofitting or replacement
 - Increase capacity and efficiency to water production facilities (intakes –gravity or higher rated pumps) at sources

- **Water Safety Planning**
 - Establish Water Safety Planning sub-committee to lead and formulate a plan
 - Organize workshops and meetings through the sub-committee to draw up work-plan
 - Delegate tasks through leading stakeholder or contract out where required
 - Raise awareness through information dissemination at all levels of consumers interaction with water supply systems
 - Carry out risks assessments, analyses and document findings
 - Incorporate documents into WSP for Water Authority for use in risks management for whole of water supply network

The approaches indicated form the basic strategies that could be used for the replication plan. It is anticipated that the issues in other locations in the country and at regional level are similar and that replication plans may be applied. Given the socio-economic and environmental settings of each location, the scale to which replication plans are implemented may differ.

Annex 9: IW Pilot Project Logframe

Components	Outcomes	Indicator	Baseline	Targets End of Project	Source of Verification	Risks and Assumptions
1. Monitoring Programme for pollution nutrients entering Honiara Coastal established	1.1 Honiara Coastal adjacent water sampling and methodology, analysis and reporting process operational	Baseline established and published State of the Honiara Coast and published	No coastal waters sampling and reporting programme.	Best practice approaches to coastal waters management and stress reduction measures captured, documented and communicated nationally	Catalogue of best practice approaches and measures	Available best practices in Solomon Islands or regionally
		Demonstrable use of best practices in planning and implementation			Communications on best practices published and syndicated	
	1.2 Baseline pollution and nutrient loads entering Honiara Coastal water established	Baseline established and published	No baselines available	Baseline established and form basis of annual reporting of improvement	Annually published State of the Honiara Coast	Ability to maintain planned sampling, analysis and reporting
		Extent and continuity of the samples collected and analysed	No public reporting of levels and impacts of pollution and nutrient discharge.	State of the Honiara Coastal Waters prepared and published annually	Published State of the Honiara Coastal Waters	Available resources to undertake Preparation and Publication
	1.3 Annual State of the Honiara Coastal reporting framework institutionalised.	Extent of uptake of coastal waters monitoring plan.				Available resources to release data to the public



Components	Outcomes	Indicator	Baseline	Targets End of Project	Source of Verification	Risks and Assumptions
2. Pollution and Nutrient Sources and environmental impact identified and Management Measures Recommended	2.1 Primary pollution and nutrient sources defined and quantified	Coastal Waters Pollution and Nutrient discharge levels reported.	Limited specificity of sources save obvious disposal of untreated waste into rivers, creeks and coastal waters	Primary Pollutant and Nutrient and pathogen sources identified, quantified and held to account	State of the Honiara Coastal Waters	Available resources to undertake Preparation and Publication
	2.2 Impact on coastal environment assessed	Environmental Assessment published	No assessment of Honiara coastal environment available	E n v i r o n m e n t a l Impact reported and Government, Business and general public aware of Impacts	Published EIA	Willingness to release data to the public Available resources to undertake Preparation and Publication
	2.3 Integrated Honiara Coastal Management Plan	Government endorsed Integrated Honiara Coastal Management Plan	No Honiara Coastal Management Plan	Honiara Coastal Management Plan operationalised	Coastal Honiara Management Plan of the Honiara Coast	Annually published State of the Honiara Coast

Components	Outcomes	Indicator	Baseline	Targets End of Project	Source of Verification	Risks and Assumptions
3. Institutional and Civil Society awareness and capacity for action established.	3.1 Increased active community awareness of waste management issues and mobilised for behavioural change to waste disposal.	Increase in target population with applied understanding of sustainable waste management. % increase	Limited awareness of environmentally safe waste disposal systems	Proportion of target community members with awareness of technical skills to successfully implement environmentally safe waste disposal systems 25% through innovative participatory techniques	Consultation meeting and activity reports, training workshop outputs including details of trained trainers and school based interviews	Awareness and capacity building materials are sufficiently well designed to engage community members and resource users
	3.2 Enhanced cross-sectoral remediation action through partnerships with government, civil society and the private sector.	Number of formalised Partnerships	No existing partnerships	Established and functional partnerships resulting in improved waste disposal in Honiara	Annually published State of the Honiara Coast	Continuity of participation of target audience in awareness raising events
	3.3 Environmental and public health safeguarded via targeted reductions in nutrient and pathogen contamination of coastal areas	% Reduction in nutrient and pathogen contamination of Honiara coastal area	No control of nutrient and pathogen contamination	Measurable reduction in environmental stress to Honiara coastal area	Annually published State of the Honiara Coast	Willingness schools and students to participate
						Willingness of the sectors to cooperate and maintain improvements.
						Ability to maintain planned sampling, analysis and reporting
						Available resources to implement activities

