



## Mid-Term Report of the Nauru GEF Pacific IWRM Demonstration Project:

*“Enhancing Water Security for Nauru through better  
Water Management and reduced contamination of  
Groundwater”*



*Construction of pilot sanitation systems*

Nauru

An initiative of the Global Environment Facility Supported Project:

*“Implementing Sustainable Water Resources and Wastewater Management in Pacific Island Countries”*

GEF Pacific IWRM Project

## **Preface**

### **Sector Overview**

Nauru's water sector is experiencing positive changes in 2011. The Department of Commerce, Industry and Environment (CIE) is currently setting up a water unit, which will be in charge of regulation and monitoring the sector. In order to give the unit the necessary means and basis to manage the water sector, a water, sanitation and Hygiene policy framework is under development and is expected to be endorsed by the parliament cabinet by 2012 (White 2011). CIE also recently formed a Steering Project Committee (CPSC), providing a platform for discussion and decision making involving heads of various departments interconnected within the sector (CPSC 2011).

If implemented carefully the new water unit will take ownership of the policy and in collaboration with the CPSC, could significantly improve the management of water, sanitation and adaptation to climate variability and climate change.

However, Nauru's institutional capacity needs strengthening to fully implement a collaborative management approach such as Integrated Water Resource Management (IWRM). Lack of local water specialists, low financial capacity and reliance on donors, lack of legal framework and standard mechanism (e.g. for policy making), and poor information and data management are some of the main issues faced by Nauru (White 2011, Hebblethwaite 2009).

The water sector is therefore still suffering from a lack of coordination, regulation, and monitoring and Evaluation (M&E).

### **Water management and supply**

Water is a scarce resource in Nauru as there is no surface water. Groundwater is slightly brackish and broadly polluted with fecal contamination which seriously limits its potential use (Bouchet and Sinclair 2010). Rainwater is therefore the principal source of water with more than 90% of the population having access to rainwater harvesting facilities (NBS 2009). However, climate variability is high in Nauru and drought periods are relatively frequent. After approximately a month without any rain, most of the domestic rainwater tanks are nearly empty (Falkland 2009). Desalinated water is thus vital for Nauru, especially during drought periods.

There are no official water demand figures but estimates consider at 1200 Kilo liter (KI) the daily demand for potable water. During average rainfall, domestic rainwater infrastructures are considered sufficient to meet this need. However, during extended drought periods, the total supply capacity of the island mostly relies on desalinated water. With a maximum water supply capacity nearly four times inferior to the demand (360KI/day) the scarcity of water became high. Thus, developing a drought coping strategy should be a government priority (WHO 2002, Falkland 2009).

Maintenance is a general issue on the island. Since the bankruptcy of the state and major reduction in the country GDP, the government hasn't been able to maintain its national water asset and most of the old storage network either suffer from major loss or is out of order. At HH level, domestic income is often not sufficient to enable people to properly maintain their infrastructure (ADB 2011).

### **Sanitation**

There is no wastewater treatment plant in Nauru and all the sewage and wastewater are either discharged to the sea or disposed at home. Home sanitation disposal facilities are mostly cesspit, allowing the wastewater to infiltrate the porous ground and further the groundwater (Bouchet and Sinclair 2011).

According to the Joint Monitoring Program (JMP) 2010, Nauru's access to improved sanitation facilities represent 50% of the population. However, sanitation facilities considered at low risk to the environment are probably significantly less than that (CIE 2011a). It is therefore recommended that sanitation issues and impact on groundwater quality be recognized as a national issue. Perhaps a national indicator could be set up to assess progress toward 'environmental friendly' sanitation techniques.

### **Water, sanitation and public health**

The level of water and sanitation services can significantly impact on public health. According to WHO 2008, Nauru had the highest rate of diarrhea in the Pacific region. Desalinated water has been recently improved with chlorine disinfection before delivery; This is likely to reduce the incidence of waterborne diseases such as diarrhea.

However, water quality is still a threat as there are yet no water quality standards (or guidelines) and very little monitoring of domestic water networks (i.e. tanks, pipes, roofs and wells) at Household level.

### **Environment and climate change**

Community engagement and awareness is still relatively low on the island toward water protection, water efficiency, water quality and sanitation impact on the environment. There is no monitoring of the impact of sewage discharge on the coastal environment and sanitation is yet to be acknowledged as a major issue by the government.

The projected impact of climate change will add complexity in Nauru's management of water and sanitation; droughts could become more frequent and sea level rise may threaten groundwater quality (CIE 2011d).

**Future vision** The positive changes currently implemented to better manage water and sanitation is a challenging process as government capacity and community awareness are still low. Furthermore, it is likely to take a long time for Nauru to further develop its economy. However, with better sector planning, coordination and investment strategy and with legal basis to regulate the water sector, Nauru could take advantage of its small size and available donor funding to develop a reliable, safe, affordable, secure and sustainable water supply (i.e. As stated in the NSDS) for the future generations.

One of the priority actions for the water and sanitation sector in Nauru is to develop a National policy framework for the sector. This work is currently undertaken by Professor Ian White along with an implementation plan. It has been discussed with Ian White that the implementation plan for the policy will be alike to an IWRM plan.

Priority actions for the water and sanitation sector have been listed under the water, sanitation and Hygiene Policy framework goals (Draft) has follows:

1. Adaptation to climate variability and change incorporated in all aspects of water and sanitation management
2. Reliable, safe, affordable, secure, efficient and sustainable water supply systems established.
3. Sanitation systems introduced which meet appropriate sanitation needs, minimise impacts on the environment and encourage improved hygiene
4. Equitable and fair systems created for controlling demand, conserving water and minimising waste and losses.
5. Clear, consistent and transparent system of water and sanitation policy, plans and laws established that identify organisations, roles, responsibilities for managing, conserving and protecting water resources.
6. Appropriate resources, capacity, skills training, information and organisations available for managing water and sanitation systems sustainably.
7. Community aware of the issues and actively engaged in planning, protection and conservation of water and improvements to and maintenance of household water and sanitation facilities



**Mr Russ. J. Kun, Secretary for the Commerce, Industry and Environment**

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# 1. Water and Sanitation Issues in Nauru: Development of the GEF Pacific IWRM National Demonstration Project

The country diagnostic report summarizes IWRM principles and issues in the Nauru context as follows:

*“Integrated Water Resource Management (IWRM) offers a systematic approach to address the sustainable development, allocation and monitoring of water resources for Pacific island Countries (PICs). The key concept of IWRM is that it provides a framework to integrate societal, economic and environmental considerations in water resource management. It recognizes that all water use is interdependent and therefore should be managed in an integrated manner. The Republic of Nauru is an isolated, uplifted limestone island located 41 km south of the equator at 0o 32' S latitude and 166 o 56' E longitude. The total land area of Nauru is only 22 km<sup>2</sup> (2,200 ha). Small island nations in the Pacific, such as Nauru, have critical water supply problems. Nauru is a permeable island with very little surface runoff and no rivers or reservoirs. Potable water is collected in rainwater tanks from the roofs of domestic and commercial buildings. Water for non-potable uses is obtained from domestic bores at houses around the island. There are four small desalination plants on the island, of which two are operating and supply Menen Hotel.*

*Shallow groundwater is the major storage for water between rainy seasons. There is increasing salinity in the groundwater bores around the perimeter of the island, and increasing demand for groundwater water due to development. Groundwater is contaminated by wastewater disposal from houses, shops, commercial buildings .*

*For Nauru the key water resource management issues that would benefit from an IWRM approach are:*

- *The lack of a legal and policy framework for water resource ownership and management. Groundwater is owned by the landowners and not the nation. There is no legislative framework for water resources, sanitation and environmental matters.*
- *Capacity building in the area of integrated management. There is a shortage of capable people for water management and for maintenance of existing facilities.*
- *Poor wastewater treatment in septic tank systems and cess-pits, seepage of nutrients to groundwater and into the lagoon.*
- *Climatic vulnerability in water supply, particularly to drought.*
- *High power demand for desalination.*

*Some of these issues are being addressed through current projects (e.g. new water tanks) but there are many issues that would benefit from IWRM”.*

In May 2007, a number of Nauruan agencies and stakeholders participated in a HotSpot Analysis workshop facilitated by SOPAC’s IWRM Programme. This workshop conducted an analysis of the issues of:

- a) Supply and demand for the supply of drinking water and institutional arrangements;
- b) Effects of sanitation practices on Nauru water resources; and
- c) Conservation and environmental issues.

The analysis identified a number of hot spots, which were ranked and assembled into a series of actions, including measures to:

1. address water scarcity;
2. reduce the demand for water;
3. improve local skills and capacity;
4. increase knowledge and understanding;
5. explore potential groundwater resources; and
6. integrate management activities.

The National demonstration project goal is to “Enhance water security for Nauru through better water management and reduced contamination of groundwater”. According to the country diagnostic report and the hot spot analysis, there is a clear need to address some critical issues that the IWRM demonstration project proposes to address as follows:

- Mainstream IWRM into national policies and legislation
- Develop an IWRM plan for Nauru
- Establish an IWRM committee to develop and deliver the IWRM plan

- Successfully develop awareness around water and sanitation (i.e. more particularly sanitation, waste management, water conservation and hygiene) issues and increase participation of stakeholder, particularly of marginalised sectors
- Develop options for better wastewater management to inform the IWRM committee
- Develop strategies for reducing vulnerability to water shortages and drought
- Implement and successfully deliver the IWRM plan

Moreover, by providing training and funding for an IWRM coordinator, the project participate in improving capacity building by increasing local skills and expertise in the water and sanitation sector.

## 2. Management of the Nauru GEF Pacific IWRM National Demonstration Project

The Department of *Commerce, Industry and Environment* (CIE) is in charge of the Environment sector policy. This includes water resources protection and water planning, monitoring and evaluation. The agency is also responsible for environmental legislation (including water resources, sanitation and climate change legal acts).

CIE is also coordinating donor aid projects related to water and sanitation such as The Pacific Adaptation to Climate Change (PACC) and Integrated Water Resource Management demonstration project (IWRM). A significant part of the water sector management is done through these two projects. As stated previously, there is currently no legislation for the water sector. The only national development plan recognized by the RoN government is the National Development Sustainable Strategy (NSDS as revised 2009) that provides with broad goals for the sector and key performance indicators (3 non quantitative indicators).

There is a draft water plan developed in 2001 by WHO consultant Ian Wallis but it is not in use. The water, Sanitation and Hygiene policy framework and implementation plan is expected to fill this gap in overarching legislation and development plan for the water sector.

Through the PACC and IWRM projects, CIE is currently setting up a water unit. Louis Bouchet and Ivan Batiouk (consultants for the PACC project) will be in charge of providing the background documentation to the government to officially recognize the water unit as a division of CIE Environment, providing a budget for 2 permanent staffs. This work should be achieved by January 2012. However, the unit will have to wait till financial year 2013 to be allocated a budget.

The National Infrastructure Survey and Implementation Plan has been developed in 2011 and content detailed information on water infrastructure and investment planning. However this has been developed by ADB and is not officially recognized as a RoN government document.

**Signatories to the  
Memorandum of Agreement  
(MoA)**

Signed XX<sup>th</sup> Mmmm Yyyy

Zzzzz  
(on behalf of CIE)  
Position

Marc Wilson  
(on behalf of SOPAC)

**IWRM Focal Point**

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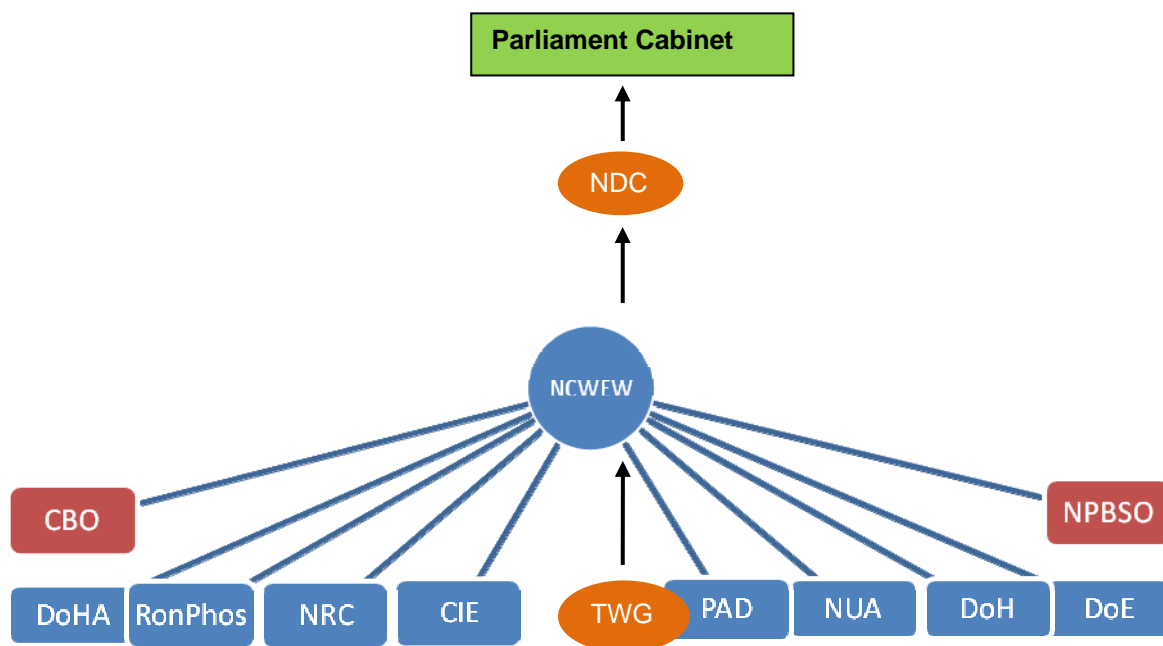
### 3. Establishment of a Coordinating Body for the Operation of the Nauru GEF Pacific IWRM Demonstration Project

Previous to the IWRM demo project, the national coordination for water and sanitation was driven by the former Aid Management Unit (AMU) and by the Development Planning and Policy Division (DPPD) (now grouped as Planning and Aid Division) from the Department of Finance. However, there was no water committee and no coordination within the environment department.

The first creation of the Technical Working Group (TWG) in 2009 (or Water Technical Committee) fits within past arrangement as AMU and DPPD were represented in the TWG. Decision making under the TWG has mostly revolved around project design and implementation for the Pacific IWRM and the PACC project, thus no interfering with AMU and DPPD power in decision making.

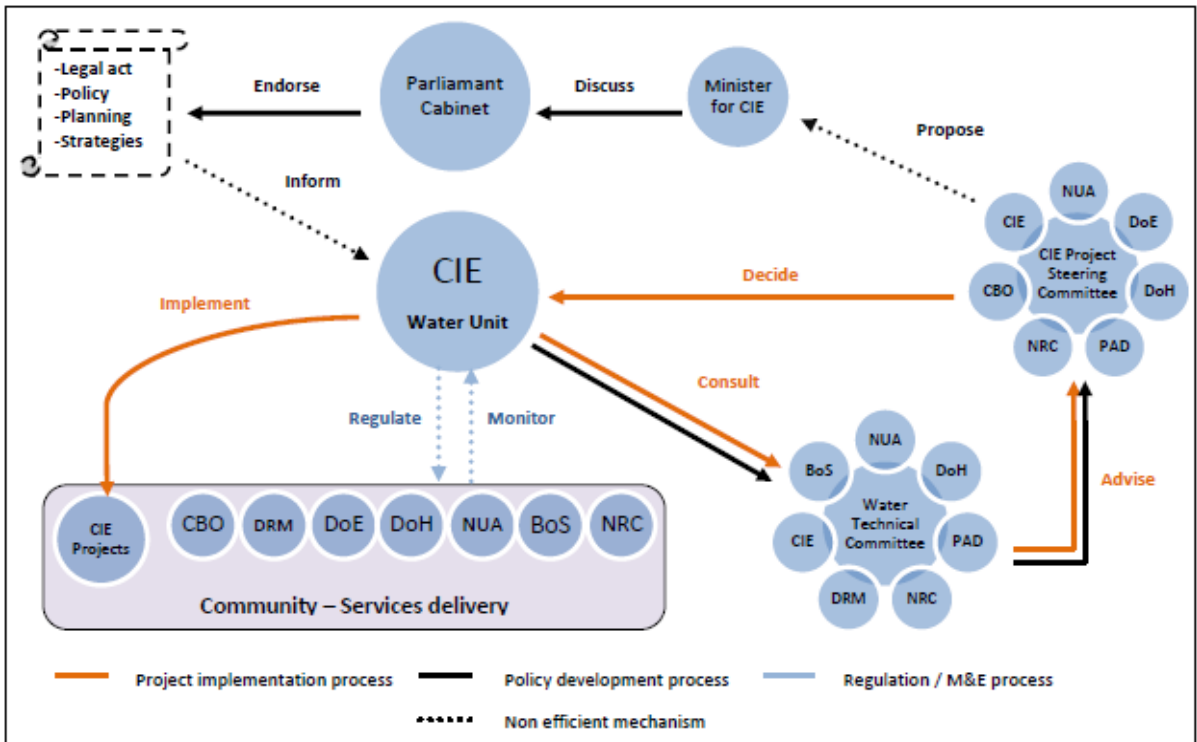
During the creation of the CIE Project Steering Committee and more recently the National Committee for Water, Energy and Waste (NCWEW), decision making power issues has been discussed. Ideally, the NCWEW, as an Apex body, should directly report to the parliament cabinet. However, the National Development Committee (NDC) formed by the finance department is currently the only committee officially mandated to report to the parliament cabinet. After discussion within the committee it has been decided that the NCWEW will be a subcommittee of the NDC, reporting to the NDC via its chair. ToR for the NCWEW is displayed in annex 2.

**Diagram 1: The NCWEW and its actors in the decision making process**



**DOE:** Department of Health; **DOH:** Department of Education; **NUA:** Nauru Utilities Authorities; **BOS:** Bureau of Statistic; **NRC:** Nauru Rehabilitation Corporation; **PAD:** Policy and Aid Division; **DRM:** Disaster Risk Management unit; **CBO:** Community Based Organisation (District Representatives)





## 4. Planning Stakeholder Participation in the Execution of the Nauru GEF Pacific IWRM Demonstration Project

We use the stakeholder analysis to identify water actors and determine their influence and power on the sector. At an institutional level, all government agencies having a role in the water sector have been identified. At a community level, the district representatives have been identified as the most influential actors.

The first formation of the Technical Working Group aimed to gather around the most critical stakeholders for review of the project design and implementation. At an advisory level, the Department of Health, the Nauru Rehabilitation Corporation, the Nauru Utilities Authorities, the Disaster Risk Management unit, the Bureau of Statistic as well as the Planning and Aid Development unit has been part of the committee since 2009.

The Technical Working Group has been a great platform for discussion and decision making on the sanitation pilot project and on the PACC project.

District representatives have also been consulted regularly regarding the project design and implementation. The project coordinator has also been involved in various community outreaches to directly inform the community on the project and get feedback.

In order to get an “higher level” committee, the CIE Project Steering Committee has been formed. Its include all the agencies involve in the Technical Working Group but at an executive level. It also includes other relevant sector such as the Department of Education, Women Affairs, RonPhos, Nauru Private Business Organisation and the Department of Finance. The committee also gather around 5 elected community leaders to represent the all island districts. Having the Community leaders on board give the committee a great influence in the decision making process.

### Key Water Stakeholders

Stakeholder Group	Position Role	Contact & Tel No.	Key Issues and Concerns	Details: How Supportive/Influential?
<i>Government Agencies</i>				
CIE Russ J Kun	Secretary for CIE	<a href="mailto:Russ.kun@naurugov.nr">Russ.kun@naurugov.nr</a> 5573042	N/A	Secretary for CIE
CIE Bryan Star	Director of Environmental Services	<a href="mailto:Bryan.star@naurugov.nr">Bryan.star@naurugov.nr</a> 5573117	N/A	Director of Project
CIE Haseldon Buraman	IWRM project coordinator	<a href="mailto:Haseldon.buraman@naurugov.nr">Haseldon.buraman@naurugov.nr</a> 5567997	N/A	In charge of IWRM demo project and implicated in various tasks within CIE for water and sanitation.
CIE Mavis Depaune	PACC project Coordinator	<a href="mailto:Mavis.depaune@naurugov.nr">Mavis.depaune@naurugov.nr</a> 5563977	N/A	In charge of the PACC project and implicated in various tasks within CIE for water and climate change.
NUA Mark Hiram	Senior Supervisor	<a href="mailto:Mark.hiram@naurugov.nr">Mark.hiram@naurugov.nr</a> 5574007	N/A	In charge of RO plant supervision at NUA.

Stakeholder Group	Position Role	Contact & Tel No.	Key Issues and Concerns	Details: How Supportive/Influential?
<b>NUA</b> Geoffrey Thoma	Senior officer	<a href="mailto:Geoffrey.thoma@naurugov.nr">Geoffrey.thoma@naurugov.nr</a>	N/A	In Charge of RO water delivery and disinfection
<b>NUA</b> Thomas Star	Policy adviser	<a href="mailto:Thomas.star@naurugov.nr">Thomas.star@naurugov.nr</a> 5574016	N/A	Policy adviser for NUA
<b>Eigigu</b> Jeremiah Dagabe	CEO	5573458	N/A	CEO for Eigigu
<b>NRC</b> Vinci Coldumar	CEO	5573210	N/A	CEO for NRC
<b>NRC</b> Benedicte Abouke	Planning Engineer	5573247	Busy and not always able to assist WTC meeting.	In charge of groundwater and rainfall monitoring activities and reporting for NRC
<b>ARMS</b> Andrew	Director ARMS	<a href="mailto:Andrew@bom.twp.arm.gov">Andrew@bom.twp.arm.gov</a> 5567227		In Charge of monitoring daily temperatures and rainfall.
<b>DoH</b> David Dowiyogo	Pharmacist	<a href="mailto:David.dowiyogo@naurugov.nr">David.dowiyogo@naurugov.nr</a>	N/A	In charge of the RoN Hospital Information center. District representative for Baitsi.
<b>DoH</b> Isireli Vuanivano	Environmental health Adviser	<a href="mailto:Isireli.vuanivano@naurugov.nr">Isireli.vuanivano@naurugov.nr</a>	N/A	Supervise the environmental health sector
<b>DoH</b> Vincent Scotty	Environmental Health Officer	<a href="mailto:Vincent.scotty@naurugov.nr">Vincent.scotty@naurugov.nr</a>	N/A	Worked in the department for more than 30 years.
<b>Department of Fisheries</b> Monte Depaune	Adviser for fisheries	<a href="mailto:Monte.depaune@naurugov.nr">Monte.depaune@naurugov.nr</a> 5564060	N/A	N/A
<b>PAD Department of Finance</b> Michael Bryde	Deputy director	<a href="mailto:Michael.bryde@naurugov.nr">Michael.bryde@naurugov.nr</a>	N/A	Newly appointed making effort in attending Project meetings mainly for project monitoring and reporting
<b>PAD Department of Finance</b> Samuel Grundler	Director	<a href="mailto:Samuel.grundler@naurugov.nr">Samuel.grundler@naurugov.nr</a>	N/A	Implicated in various groups and committee, District leader for BOE. Sound knowledge of water and sanitation issues
<b>BoS</b> Department of Finance Ipia Gadabu	Director	<a href="mailto:Ipia.gadabu@naurugov.nr">Ipia.gadabu@naurugov.nr</a>	N/A	In charge of BoS for more than 10 years. Active in the Water Technical committee
<b>Women's Affairs,</b> Department of Home Affairs	Secretary for H/Affair	<a href="mailto:Charmaine.scotty@naurugov.nr">Charmaine.scotty@naurugov.nr</a>	N/A	Home affair also include women affair – important stakeholder for water. Active in the Steering committee

Stakeholder Group	Position Role	Contact & Tel No.	Key Issues and Concerns	Details: How Supportive/Influential?
DoE Dr Maria Gaiyabu	Secretary for Education	<a href="mailto:secretary.education@naurugov.nr">secretary.education@naurugov.nr</a>	N/A	Secretary for education had flagged interest of Composting toilet to be placed at schools
DoE Joanna Crawford - Bryde	Adviser for curriculum	<a href="mailto:Joanna.crawfordbryde@naurugov.nr">Joanna.crawfordbryde@naurugov.nr</a>		Adviser for curriculum. Important input to develop knowledge in watsan issues for the youth
DoE Saimoni R	Chef Liaison officer	5581423	N/A	In charge of liaison between education and other departments such as Health and CIE
National Disaster Risk Management Roy Harris	National coordinator	<a href="mailto:Roy.harris@naurugov.nr">Roy.harris@naurugov.nr</a>	N/A	Coordination for risk and disaster management. Important stakeholder to deal with water issues, especially drought.
<b>Non-government organizations and private sector</b>				
Nauru Private Business Sector Organisation Lockley Denuga	Director	<a href="mailto:Idenuga@yahoo.com">Idenuga@yahoo.com</a> 556 4064	N/A	Coordination of private sector for Nauru. Important to develop the water sector services.
PIPSO Pacific Island Private Sector Association	N/A	<a href="http://www.pipso.org">http://www.pipso.org</a>	N/A	Forum for regional economic growth and development opportunities
CBO Community Based Organisation Tyron Debye	Chair	<a href="mailto:Tyron.debye@naurugov.nr">Tyron.debye@naurugov.nr</a>	New organization, could become influential	The organization is made of the island 14 district leaders, including women and youth group.
NIANGO Julie Olsson	Secretary for NIANGO	<a href="mailto:Nauruislandngo@hotmail.com">Nauruislandngo@hotmail.com</a> (674)444 3133	Seems to have conflict between community leaders and NIANGO	Organization apparently inactive since 2008
<b>External actors and Aid Organizations</b>				
SPC-SOPAC	N/A	<a href="http://www.sopac.org">www.sopac.org</a>	N/A	Provide technical assistance for Nauru
JICA	N/A	<a href="http://www.jica.go.jp">www.jica.go.jp</a>	N/A	Provide infrastructures support to Nauru

Stakeholder Group	Position Role	Contact & Tel No.	Key Issues and Concerns	Details: How Supportive/Influential?
Taiwanese mission Peter Chen	Counselor	<a href="mailto:cyechen@mofa.gov.tw">cyechen@mofa.gov.tw</a> 557 3331	N/A	Overarching the Taiwanese mission. The mission provides Nauru with technical assistance for kitchen gardens and agriculture development.
Australia High Commission Bruce Cowled	High Commissioner for Australia	<a href="mailto:Bruce.cowled@dfat.gov.au">Bruce.cowled@dfat.gov.au</a>	N/A	Donated AUD \$100K to upscale the HH sanitation system
AusAID Mark Skinner	1 <sup>st</sup> Secretary for Ausaid	<a href="mailto:Mark.skinner@dfat.gov.au">Mark.skinner@dfat.gov.au</a>	N/A	

## 5. Results Oriented Planning and Implementation of the Nauru GEF Pacific IWRM Demonstration Project

A basic logframe had been developed from issues raised in the Nauru Diagnostic Report and The Hotspot Analysis which I believe was developed by representatives from different stakeholders. The logframe was then further developed with the assistance from RPCU to ensure that the IWRM & WUE concepts are being captured in the demonstration activities. Even during the inception periods, the project started without any committees to guide the development of the project. Later through the period, it managed to form a Technical Working Group that also oversees the role of the PSC. In April 2011 PSC was established consisting key stakeholders including representatives from NGO's and Communities sitting in as members. Dec 2011 the national water, sanitation and Hygiene Policy was tabled for Cabinet's endorsement.

Producing quality and adequate numbers of awareness material had been a challenge as this could only be done overseas. Local TV, Radio station including local news paper produced once a month are the only medium being used for awareness. PM prints out most of the awareness materials provided as hand outs during community outreach or through information kiosk during national/international events. Context mainly on water and sanitation related issues. Information from SOPAC water projects "IWRM", Live & learn tool kits, others from the internet on water conservations and groundwater basics.

Stakeholders are being engaged through our TWG, PSC and Community Based Organisation. TWG we develop the plan then we tabled it through PSC for endorsement and finally we feed the proposal through the Community Based Organisation for support and mobilisation of activities.

## 6. Strengthening National Coordination and IWRM Policy and Planning in Nauru

The Pacific IWRM demonstration project is contributing to the National IWRM planning process by:

- Raising public awareness on linkages between sanitation practices and groundwater pollution
- Actively engage all major stakeholders within the National Committee for Water, Energy and Waste (Formerly CIE Project Steering Committee) and the Technical Working Group (Also known as Water Technical Committee)
- Facilitate implementation of National Water, Hygiene and Sanitation Policy framework and Implementation plan

The Project has been central in establishing the Technical Working Group and the National Committee for Water, energy and Waste. The technical working group has been acting as the national apex body from 2009 to 2011. Early in 2011, the CIE Steering Project Committee has been created and has hosted 5 meetings, allowing important decisions in the sector such as:

- Implementation of Compost toilets in Anetan and Kayser College schools following expression of interest from the Secretary for Education in 3<sup>rd</sup> committee meeting
- Decision on the technology chosen for implementation of pilot techniques as part of the Pacific IWRM project
- Decision on the technology chosen for the implementation of pilot techniques as part of the Pacific Adaptation to Climate Change (PACC)
- Endorsement of the first water, sanitation and climate outlook, acknowledging issues and emerging challenges in the water and sanitation sector
- Beginning of the water, sanitation and hygiene policy development process facilitated by Professor Ian White

During the last meeting, the committee just endorsed its new ToR to Become the National Committee for Water, Energy and Waste. During the next few months, the committee will develop a work plan to work toward achieving the new policy goals and targets. The water unit will be central in assisting the committee to develop its workplan and facilitate its work.

The Water, Sanitation and Hygiene Policy framework is expected to be amended by the end of 2011. Along with the policy, an implementation plan will be developed. Following discussion between SOPAC, Ian White and the Pacific IWRM demo project coordinator, the implementation plan could be assimilated to an IWRM plan. With the support of SOPAC, the project coordinator will coordinate both projects to avoid duplication and ensure their relevance to the Nauru context.

## **7. Capturing Lessons Learned for Replication and Scaling-up of IWRM Best Practice in Nauru**

Lesson learnt – being able to understand the importance of the different stakeholders and the importance of their values when planning for an activity. Also learnt the importance in having to develop and established the different Committee groups to oversee the project in its early stages especially when developing the Logframe.

As a project manager, I manage to learn and share experiences with Tuvalu on how they engage their communities and their contractors to work together. Changing the mindset of the community to support the use of a dry composting toilet. The sharing experiences was done mainly during our annual meetings.

## 8. Status of the Nauru National IWRM Demonstration Project against the national project indicators

Brief Activity Description <sup>1</sup>	Brief Verifiable Indicator Description	Progress
<b>Goal:</b> Sustainable Integrated Water and Wastewater Management in Nauru	National Water & Sanitation Plan in place and implemented to support Nauru in reducing numbers of water related disease and public demands of water from utilities decreased, increasing national reserves of potable water and groundwater being cleaner & safer for all uses	50%
<b>Purpose:</b> Position Nauru to manage its wastewater and water resources in a sustainable manner, incorporating climate change adaptation		
<b>Component 1. Establish adequately resourced governance and management framework to support sustainable water management</b>	IWRM Committee incorporating a range of government, private sector and community stakeholders overseeing implementation of IWRM plan. National water resource management policy and legislation based on IWRM framework implemented and adequately funded	30%
<b>Output 1.1</b> Mainstream IWRM into national policies and legislation	IWRM options for mainstreaming into the national policies and/or legislation	30%
<i>Activity 1.1.1</i> Review legislative requirements	Report recommending strategies for mainstreaming IWRM into national legislation and/or policies	40%
<i>Activity 1.1.2</i> Develop National IWRM Plan	National Plan submitted for Cabinet endorsement	30%
<i>Activity 1.1.3</i> Develop draft legislation and/or policies	Draft legislation/policies completed and submitted to Cabinet for endorsement.	30%
<i>Activity 1.1.4</i> Develop and implement political support strategy	Supporting strategy provide to Cabinet for consideration	Nil
<i>Activity 1.1.5</i> A Water Sanitation and Hygiene Policy Draft	Water sanitation & Hygiene Policy submitted to government to be adopted	Nil
<b>Output 1.2</b> Review government arrangements	Clear roles and responsibilities in water resource management across government	40%
<i>Activity 1.2.1</i> Review institutional arrangements for IWRM	Report outlining opportunities and barriers for IWRM implementation in Nauru and government agency roles and responsibilities	40%
<i>Activity 1.2.2</i> Recommend institutional arrangements for IWRM	Recommendations submitted to the Government of options and Managing Agency identified	40%
<b>Output 1.3</b> Develop IWRM Plan for Nauru	IWRM Plan management in placed with strong support from the communities and relevant stakeholders	30%
<i>Activity 1.3.1</i> Synergise technical, community and economic studies	Report to form component of the Draft IWRM Plan consultation package.	50%
<i>Activity 1.3.2</i> Define level of acceptable risk	Acceptable level of risk clearly defined in the IWRM management plan	40%
<i>Activity 1.3.3</i> Develop Draft IWRM Plan	IWRM Plan drafted for consultation	40%

<sup>1</sup> Full activity and verifiable indicator descriptions can be found in the Project Logframe in Annex 4




Brief Activity Description <sup>1</sup>	Brief Verifiable Indicator Description	Progress
<i>Activity 1.3.4</i> Undertake stakeholder consultation	Stakeholders consulted and agreed on the Plan	20%
<i>Activity 1.3.5</i> Complete Nauru IWRM plan	Nauru IWRM Plan implemented and endorsed by Cabinet	20%
<i>Activity 1.3.6</i> Develop and endorse national IWRM indicators	Indicators endorsed by APEX body and reported nationally	Nil
<b>Output 1.4</b> Capacity developed Nationally and resources allocated	20% increase in national budget for IWRM activities by 2012	20%
<i>Activity 1.4.1</i> Support development of sustainable funding for Policy	20% increase in national budget for IWRM activities by 2012	Nil
<i>Activity 1.4.2</i> Develop national participatory indicator framework	National participatory M&E Framework established APEX body using Most Significant Change (MSC) and reflection and learning techniques Relevant national staff trained in participatory M&E methods	20%
<i>Activity 1.4.3</i> Support development of national IWRM communication plan	National Strategic IWRM Communication Plan	20%
<b>Component 2. Sound governance to provide confidence</b>	IWRM Steering Committee established with clear roles & responsibilities, transparency and accountability	80%
<b>Output 2.1</b> Establish IWRM Committee	Multi-sectoral IWRM Steering Committee established with at least 33% female membership	80%
<i>Activity 2.1.1</i> Develop governance framework for IWRM Committee	Terms of Reference, Roles and Responsibilities identified, including Agency roles and responsibilities. Authority formally embedded in legislation	90%
<i>Activity 2.1.2</i> Develop support structure for IWRM Committee	Executive support appointed and finance in place	50%
<i>Activity 2.1.3</i> Establish IWRM Committee	Appointment of IWRM Committee members, Cabinet Signoff on IWRM Committee	100%
<i>Activity 2.1.4</i> Identify options for sustainable financing	Budget provision identified and in place to sustain the IWRM Project	50%
<b>Component 3. Stakeholder engagement strategy</b>	Stakeholder engagement strategy in place raising awareness and capacity building supporting a sustainable IWRM plan	50%
<b>Output 3.1</b> A Communication Strategy	Communication strategy developed that facilitates increased engagement opportunities for communicating issues	50%
<i>Activity 3.1.1</i> Develop communication strategy in consultation	Communication strategy in place that accounts IWRM awareness	80%
<i>Activity 3.1.2</i> Develop range of communication tools	Range of Communication tools identified for the communication strategy	50%
<i>Activity 3.1.3</i> Compile data on health, ecosystem integrity and environment	Public information Data compiled clearly identifying issues and gaps between human health, environment and ecosystem	20%
<b>Output 3.2</b> Participation Strategy to increase stakeholder engagement	Stakeholder Engagement Plan with Communication strategy in place	80%
<i>Activity 3.2.1</i> Develop strategy to increase stakeholder engagement	Stakeholder engagement Plan in Water Use & Wastewater Management clearly identifying governance	80%

Brief Activity Description <sup>1</sup>	Brief Verifiable Indicator Description	Progress
<b>Output 3.3</b> Capacity Building	Capacity building and commitment Involvement of stakeholders 30% increase in gender balanced community and wider stakeholder engagement in water related issues 50% increase of community engagement with government	20%
<i>Activity 3.3.1</i> Undertake capacity needs assessment for stakeholders	Completion of technical, governance, institutional, community and managerial capacity needs assessment	10%
<i>Activity 3.3.2</i> Develop capacity building strategy	Capacity building strategy	40%
<i>Activity 3.3.3</i> Develop capacity building toolkit	Develop tools identified in capacity building strategy, with a focus on priority needs	Nil
<i>Activity 3.3.4</i> Raise awareness of water conservation	30% of Household family member attending workshop on management of priorities of environment sustainability	30%
<i>Activity 3.3.5</i> Increase targeted water and wastewater management skills	Two key stakeholder members trained in Water & Sanitation Management, providing training sessions Increase in national staff (both men and women) across institutions with IWRM knowledge and experience by end of project	Nil
<i>Activity 3.3.6</i> Public education program on sanitation and WUE	2 representatives from each community taking the lead in educating & training their own community groups on sanitation & water related issues.	Nil
<i>Activity 3.3.7</i> Media promotion on personal hygiene & water use	Weekly Educational Radio and TV programs produced and aired nationally. (3-5 mins short video presentation, 30 mins radio talkshow)	40%
<i>Activity 3.3.8</i> Implement other activities in capacity building strategy	Annual reporting identifying reduced needs for lower capacity development and increasingly complex capacity development needs	20%
<i>Activity 3.3.9</i> Develop video on DCT	Public knowledge on DCT, knowledge of IWRM approach to address water resources issues in Nauru .	Nil
<b>Component 4. Complete targeted scientific and technical studies</b>	A water & sanitation awareness developed to a level that enables stakeholder and community participation in IWRM management	50%
<b>Output 4.1</b> Develop options for better wastewater management	Best practices on WUE & wastewater management identified 20% reduction in groundwater pollution from sewage and manure over site	60%
<i>Activity 4.1.1</i> Feasibility studies on the rehabilitation of the NPC system	Consultant(s) full evaluation report submitted for PSC & Government consideration & endorsement	90%
<i>Activity 4.1.2</i> Inventory of Rainwater Harvesting & Sanitation systems	Inventory on HH Water Harvesting & Sanitation systems, identifying types and status.	80%
<i>Activity 4.1.3</i> Recommend HH sanitation and wastewater systems	Options and appropriate prototype systems identified for PSC consideration	90%
<i>Activity 4.1.4</i> Procure required prototype sanitation systems	Suppliers identified & Quotation with after-market support agreement provided for PSC consideration	60%
<i>Activity 4.1.5</i> Procure grey wastewater treatment systems	Suppliers identified & Quotation with after-market support agreement provided for PSC consideration	50%
<i>Activity 4.1.6</i> Procure constructional services	Constructional service engaged in installing the prototype systems	50%
<i>Activity 4.1.7</i> Identify sites to install prototype systems	Targeted HH or area being identified, proposal submitted for PSC consideration	80%
<i>Activity 4.1.8</i> Install prototype treatment systems	Prototype treatment system installed into targeted HH or area for trial and monitoring on feedbacks	30%

Brief Activity Description <sup>1</sup>	Brief Verifiable Indicator Description	Progress
<b>Output 4.2</b> Strategies to reduce water shortage and drought vulnerability	Water Use Efficiency strategies developed and in place.	35%
<i>Activity 4.2.1</i> Increase coverage of suitable rainwater tanks	Majority of dwellings have suitable tank harvesting rain water by end of project	10%
<i>Activity 4.2.2</i> Review potential groundwater options for water supply	Report produced with recommendations.	50%
<i>Activity 4.2.3</i> Replication Strategy	A Replication plan implemented Replication Toolkit, National scaling-up by June 2013, including inclusion of lessons in national project activities	50%
<i>Activity 4.2.4</i> Community awareness on climate change proofing measures	Communities now more conservative and prepared to the climate change impact	40%
<b>Component 5. Implement the IWRM Plan</b>	IWRM plan integrated into national policies and legislations	30%
<b>Output 5.1</b> Monitoring to assess potential groundwater changes	Monitoring program implemented	10%
<i>Activity 5.1.1</i> Monitoring pollution of groundwater	All ground water sources & sanitation systems, inspected & monitored	10%
<i>Activity 5.1.2</i> Treatment of shallow wells & boreholes	Shallow wells & boreholes in critical location being inspected more regularly and treated	10%
<i>Activity 5.1.3</i> Monitor the prototype systems	Trial systems including its environs being closely monitored and user feedback recorded	Nil
<i>Activity 5.1.4</i> Develop water/sanitation audit toolkit for community uses	User friendly Water/Sanitation evaluation toolkit developed and available to communities	10%
<b>Output 5.2</b> Executive and secretariat support for IWRM Committee	Establishment of support staff	50%
<i>Activity 5.2.1</i> Identify PSC support needs, roles and responsibilities and funding	ToR and guidelines on roles and responsibilities with funding mechanisms	50%
<i>Activity 5.2.2</i> Establish executive support unit	Water Unit established	50%
<b>Component 6. Successfully deliver the Nauru IWRM Plan</b>	IWRM Plan in place and enacted	70%
<b>Output 6.1</b> Successfully managed project		70%
<i>Activity 6.1.1</i> Establish Project Management Unit	Establishment of PMU Office including staff recruited	100%
<i>Activity 6.1.2</i> Identify stakeholders	Key stakeholders, co-funding donors identified with clear roles & responsibilities	100%
<i>Activity 6.1.3</i> Manage budgets, deliverable and timelines	Budget & AWP in place	50%
<i>Activity 6.1.4</i> Develop and implement project participatory M&E programme	Participatory M&E programme Project Reporting incorporating M&E Results	20%

# Annex 1 – National Committee for Water, Energy and Waste (NCWEW)

Members	Photo	Photo	Members
Secretary for the Commerce, Industry and Environment Mr Russ Kun Phone: russjkun@me.com			Position Name Phone: Email:
Position Name Phone: Email:			Position Name Phone: Email:
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## **Annex 2 – National Committee for Water, Energy and Waste Terms of Reference**



**Republic of Nauru**

# **National Water, Energy and Waste APEX Body**

**-Terms of Reference -**

**DRAFT FOR COMMENT**

## **I. BACKGROUND**

### **I.A. Apex bodies: Definition**

According to the Asian Development Bank (ADB), a national water APEX body (or overarching body) is a *national organization that guides the water sector in reforms for both water services and resource management. It is ideally a consortium of representatives from nearly every relevant sector and stakeholder group.* Considering Nauru's limited number of stakeholders, past reports have mentioned the possibility to form a larger scope committee, which will also encompass energy and waste management.

The National Water, energy and waste APEX Body is thus a platform to facilitate decision making between the various sectors and stakeholders. Its role is to first ensure that national strategy toward water and sanitation, energy and waste is contextually relevant, achievable and up to date and secondly to ensure that each individual effort successfully achieve national objectives for water and sanitation, energy and waste.

### **I.B. History and Context**

Water is a scarce and precious resource in Nauru. Its management has been for a long time left to the former Nauru Phosphate Corporation (NPC), mainly because of its financial capacity to provide with production and delivery of large volume of desalinated water. Since the de-commissioning of the Multi-effect Distillation (MED) in 2006, NUA is now operating 3 RO plants with a much smaller capacity. Nowadays, most of the water is collected at a domestic level using rainwater as a primary source. Extremes drought event such as the one of 1998 to 2000 or more recently in 2010-2011, outbreak of water-borne diseases, brackish and contaminated groundwater are reminder of the need to improve national water and sanitation management.

Responsibilities for Water quality, availability and reliability are shared between the community and various government agencies. Recognizing this contextual situation and acknowledging the efficiency

of having a whole of government approach toward water and sanitation management, the CIE Environment division decided to form the Steering Project Committee as a high level steering committee in early 2011. As of the 24 of August 2011, the CIE Project Steering Committee has hosted 4 meetings, allowing important decisions in the sector such as:

- Implementation of Compost toilets in Anetan and Kayser College schools following expression of interest from the Secretary for Education in 3<sup>rd</sup> committee meeting
- Decision on the technology chosen for implementation of pilot techniques as part of the Pacific IWRM project
- Decision on the technology chosen for the implementation of pilot techniques as part of the Pacific Adaptation to Climate Change (PACC)
- Endorsement of the first water, sanitation and climate outlook, acknowledging issues and emerging challenges in the water and sanitation sector
- Beginning of the water, sanitation and hygiene policy development process facilitated by Professor Ian White

With the National Water Sanitation and Hygiene currently developed, it is urgent to appoint the steering committee as the official National Water, energy and waste APEX body. That will support the policy development process and strengthen the capacity of the committee.

Water, waste and energy are 3 interdependent sectors. Water production is one of the main consumers of power and waste management can have a great impact on environment and groundwater resources. Acknowledging this strong relationship, past reports identified that a committee for water, energy and waste will be a powerful platform to integrate this 3 components together.

### **I.C. Rationale: The strategic importance of a National Water, Energy and Waste APEX Body (NAB)**

The advantages of a whole-of-government and community coordination committee on water waste and energy are<sup>2</sup>:

- Coordination of government agencies with responsibilities in the water, waste and energy sectors;
- Facilitation of the development of broadly-based policy on water and sanitation, waste and energy which is consistent across sectors and with other related government policies;
- Identification of mutually-agreed priorities and processes;
- Provision of broadly-based advice to government on water and sanitation, waste and energy;
- Improvement in administration efficiency because advice and proposals have been thoroughly discussed and vetted before they go to Cabinet via the National Development committee;
- Increased multi-sectoral understanding of the condition of the nation's freshwater resources, water supplies, sanitation services, energy supplies and capacity and waste services and disposal through coordinated monitoring and assessment;
- Increased understanding and the opportunity for community participation in water and sanitation waste and energy;
- Provides a single forum for interaction and information dissemination between agencies, NGOs and the community;
- Produces coordinated and thoroughly reviewed water and sanitation, waste and energy proposals for the Government of Nauru and for donor and investment organisations;
- Increases confidence of donor and investment organizations in the sector.

### **I.C. Mission Statement**

**1. To coordinate, facilitate and enhance government and community activities and actions for the water and sanitation sector in order to ensure that the population has access to:**

---

<sup>2</sup> Adapted from White 2006, The national water and sanitation committee, Strengths, Proposed Mission, Aims, Terms of Reference, Coordination, Reporting and Composition, Republic of Kiribati



- A reliable, safe, affordable, secure and sustainable water supply to meet socio-economic development needs and appropriate sanitation facilities for healthy communities and environment (National policy vision for water and sanitation)

**2. To coordinate, facilitate and enhance government and community activities and actions for the waste and energy sector in order to ensure that the population has access to:**

- A reliable, safe, affordable, secure and sustainable energy supply to meet socio-economic development needs (NSDS goal for energy)
- An effective management of waste and pollution that minimizes negative impacts on public health and environment (NSDS goal for waste and sewerage)

## **I.D. Aims and Objectives<sup>3</sup>**

### ***Aims:***

1. Promote:
  - the sustainable management, conservation and use of water and related land resources
  - the sustainable management and use of energy with emphasis on renewable, clean and cost efficient energies
  - the sustainable management, disposal and treatment of waste and sewerage

by implementing Government policy and by coordinating and enhancing Government and community activities and involvement.
2. Facilitate and enhance initiatives to raise the quality of life by improving the quality and availability of safe water and decreasing illness and infant mortality rates due to water-borne diseases.
3. Facilitate and enhance initiatives to raise the quality of life by improving the quality (i.e. reliability and capacity) of energy supply and waste management (i.e. cleaner environment, reduction in levels of pollution for land and natural resources)
4. Coordinate and facilitate information gathering and assessment, policy and instrument development and review, and identification of other needs for the water and sanitation, energy and waste sectors in Nauru.
5. Provide broadly-based strategic advice to the Government of Nauru, the community, non-government and donor organizations on the nation's water resources and sanitation /energy and waste priorities, services, their management and use.

### ***Objectives:***

1. Coordinate and enhance the strategic activities of Government Ministries in the water and sanitation, waste and energy sectors to ensure sustainable management.
2. Facilitate and coordinate the review and assessment of water and sanitation/waste/energy-related policies, regulations, plans, instruments and standards and make recommendations to Government on policy development, program implementation and potential improvements.
3. Provide the Government with broadly-based, coordinated, strategic advice on priorities for water and sanitation, waste and energy and on related development opportunities.
4. Provide a national forum for the discussion of water, waste and energy-related issues.
5. Every first year, coordinate and facilitate a ***national assessment report*** on the quality and quantity of water resources, water consumption, rainwater harvesting and demand for water and encourage strategic systematic monitoring (format for the report will have to be defined in the working plan along with a monitoring framework for water services)

<sup>3</sup> Adapted from White 2006, The national water and sanitation committee, Strengths, Proposed Mission, Aims, Terms of Reference, Coordination, Reporting and Composition, Republic of Kiribati

6. Every second year, coordinate and facilitate an **outlook on water and sanitation, waste and energy** (format for the report will have to be decided in the work plan).
7. Coordinate and facilitate assessments of risks in the water and sanitation, energy and waste sector and possible adaptation strategies in relation to global change and extreme events (in coordination with DRM)
8. Enhance and coordinate strategies to improve community understanding of and participation in water and sanitation use and planning and in furthering water conservation and protection.
9. Enhance and coordinate strategies to improve community understanding of and participation in energy savings, environmental protection and domestic waste management (i.e. disposal and recycling)
10. Coordinate the review and assessment of, and prioritise and make recommendations on proposals for water and sanitation /waste/energy-related projects.

## II. MANDATE

### II.A. Role

The National Committee for Water, Energy and Waste is mandated by the RoN government to be the national overarching body for water, energy and waste. The committee should be used as the forum for **ALL** water and sanitation, waste and energy- related issues, investment planning and policy development/review processes.

### II.B. Powers

Under its mandate, the NAB can:

- Request information from government institutions on policy processes and related documents pertinent to water, sanitation, energy or waste management
- Make recommendations on water, sanitation, waste and energy related:
  - National strategy
  - National plans
  - policy frameworks
  - project proposals
  - investment planning
  - issues
- Give directions to project coordinators and international aid actors on project design and implementation

### II.C. Responsibilities

The NAB as the responsibility to

- Inform the communities on outcomes of its meetings. This should be achieved using the CIE online Center and Facebook page
- Coordinate and facilitate annual assessments of performance toward national objectives in water and sanitation, waste and energy sectors. (national assessment report and outlook)
- Annually report to the parliament cabinet on outcomes of meetings and national assessments
- Special report to the parliament cabinet when necessary

### II.D. Core values

- Sustainable management
- Environmental protection
- Transparency

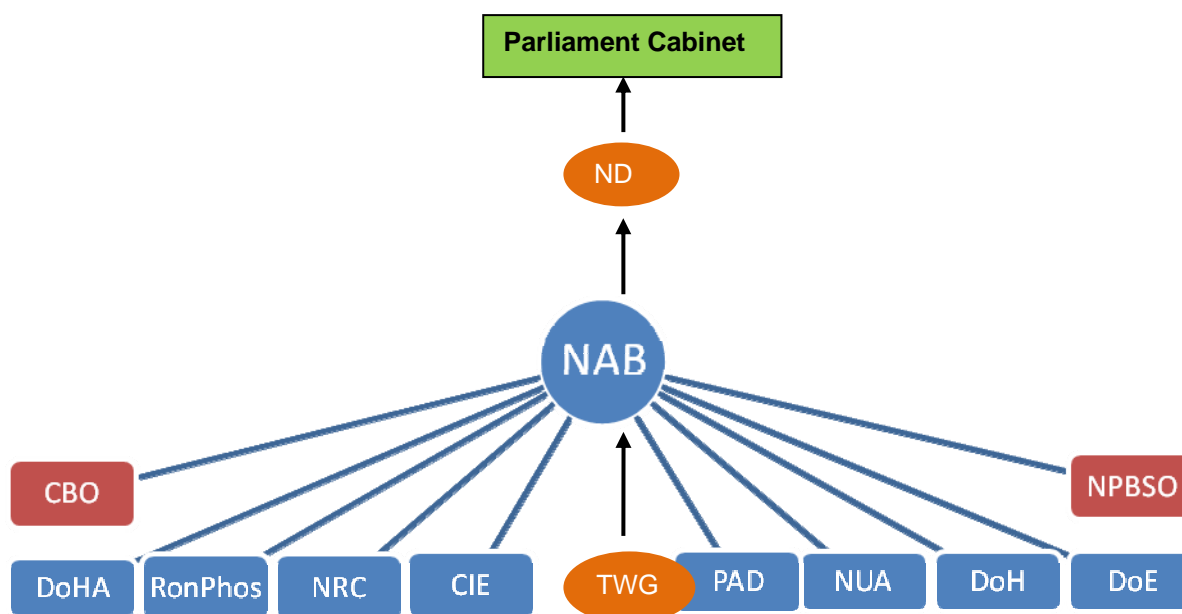
- Accountability
- Social and gender equity
- Cost-effectiveness

### III. WORKING ARRANGEMENTS

#### III.A. Structure

**Note:** According to ADB, it is vital for the national APEX body to separate from a ministry of water or environment to ensure impartiality in decision making. However, in the Nauru context, as the NDC is the only committee reporting to the parliament cabinet, the NAB could report to the NDC via its chair according to the following arrangement (graph 1).

**Graph 1: The National Apex body and its actors in the decision making process**



#### III.B. Membership

Membership in black is the current CIE Project Steering Committee membership. In red are addition suggested for the NWAB. In case one of the following member cannot attend a meeting, they are requested to appoint the most senior of their staff.

1. Secretary for CIE [**Chairperson**]
2. Director for Project, [**Vice Chairperson**]
3. Mavis Depaune (PACC Co-ordinator) [**Secretary**]
4. Haseldon Buraman (I.W.R.M Co-ordinator)
5. Lockley Denuga (Nauru Private Business Sector Organisation)
6. Terangi Adam ( Ronphos)
7. Fiona Laeo (CBO Representative Ubenide)
8. Mark Hiram (Nauru Utilities)
9. Dempsey Detenamo (CBO Representative Boe/Aida)
10. David Dowiyogo (CBO Representative Ubenide)
11. Taiatu Ataata (Deputy director PAD, AMU Finance)

12. Samuel Grundler (Director PAD, AMU Finance )
13. Godwyn Debao (CBO Representative Yaren)
14. Charmaine Scotty (Secretary for Home Affairs)
15. Elda Harris (Treasury Finance)
16. Nerida-Anne Hubert (CBO Representative Blues)
17. Sunia Sokai (Secretary for Health and medical services)
18. Vinci Clodumar (CEO NRC )
19. Monte Depaune, Acting CEO for Fisheries

### III.C. Administrative functions

- The Chair as responsibility to pass on information, recommendations, documents and request to the NDC.
- The Vice Chair is taking the chair functions if the chair is not able to attend a meeting.
- The secretary as responsibility for taking minutes during each meeting and to publish them on the CIE online resource center.
- The secretary is responsible for preparing documents to be reviewed by the committee and to circulate them among all members of the committee.
- Temporary secretaries can be named for a short period of time (e.g. during a national assessment). Responsibilities for each temporary secretary will be then clearly recorded in the related minutes.

### III.D. Work planning - M&E

Annually, the NAB should engage in an assessment of water, sanitation, waste and energy services and management. This is proposed to be achieved in two times:

- **Every first year:** *A National assessment report.* A short report focusing mainly on water management including: Quality and quantity of water resources, water consumption versus demand, rainwater harvesting capacity, Ro capacity and monthly production, waste management capacity, energy supply reliability
- **Every second year:** *A National outlook on water, sanitation, energy and waste.* This could involve empowering a local consultant looking at the performance of defined indicators for each sector. The outlook will also look at major issues and emerging threats with emphasis on the core values of the NAB (Sustainable management, environmental protection, cost effectiveness, transparency, accountability and gender and social equity)

To start this process, the NAB should first engage in the water, sanitation and hygiene policy development process (2011) and set up a work plan. Indicators will need to be setup to monitor progress toward national strategy. A monitoring framework would need to be set up to enable efficient and relevant national assessment.

### III.F. Reporting obligations

The NAB has an obligation of reporting:

- To the community, other government agencies and supporting international agencies via the CIE Environment website
- To the parliament cabinet via the National Development Committee (The NAB's Chair should be representing the NAB interest within the NDC)

Reporting documents are:

- Meeting minutes
- Work plan
- Policy documents
- Outlooks

- Annual assessment reports

### **III.G. Meetings**

- Meeting are held at the Parliament conference room
- Meeting are to be announced at least 4 days in advance
- Documents to be reviewed during committee meeting are to be distributed to the members via email at least 3 days prior to meeting
- Meeting minutes from the Technical group are to be forwarded to the committee prior meeting (i.e. If a technical meeting has been held previously)
- All members can contribute to the development of a document using Google doc for CIE environment

### **III.H. Communications and Information Management**

#### ***Reporting obligations and archives for the NAB:***

- Meeting minutes are to be published on the CIE Environment resource center within a week after every meeting
- Meeting minutes are to be stored in CIE shared Hardrive under “Steering Committee” folder
- Any official document produce by or under supervision of the steering committee (such as policies, national assessment and outlooks) should also be store in the CIE Library and published online

#### ***Available resources on water, sanitation and climate in Nauru, Regional and Global context:***

- A selection of up-to-date and relevant resources are available online on the CIE Environment library (<http://nauruenv.appspot.com/library>)
- SPREP library on Nauru: [http://www.sprep.org/publication/pein\\_nauru.asp](http://www.sprep.org/publication/pein_nauru.asp)
- SOPAC Library: <http://www.sopac.org/index.php/virtual-library>
- Meeting minutes from past Steering committee meeting are available online at: <http://nauruenv.appspot.com/psc>

### **III.I. Resources and financial administration**

Currently funded through PACC and IWRM project

## **Annex 3 – Stakeholder analysis and engagement plan**

## Annex 4 – Project Logframe

### Enhancing Water Security for Nauru through better Water Management and reduced contamination of Groundwater

ACTIVITIES	DESCRIPTIONS	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/RISK	Responsible Agency
	<b>Goal:</b> Sustainable Integrated Water and Wastewater Management in Nauru	National Water & Sanitation Plan in place and implemented to support Nauru in reducing numbers of water related disease and public demands of water from utilities decreased, increasing national reserves of potable water and groundwater being cleaner & safer for all uses	Initially, tabling of Plan in Parliament. Longer-term: -Health reports -Utilities monthly water despatch reports -Health & Community monthly records on sanitation systems & water monitoring program -NRC bore monitoring monthly reports	Capacity to influence political process; 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; capacity to attract/retain suitably qualified personnel	
	<b>Purpose:</b> Position Nauru to manage its wastewater and water resources in a sustainable manner, incorporating climate change adaptation				
	<b>Component 1. Establish an adequately resourced governance and management framework to support sustainable water management</b>	IWRM Committee incorporating a range of government, private sector and community stakeholders overseeing implementation of IWRM plan. National water resource management policy and legislation based on IWRM framework implemented and adequately funded	Cabinet submission, Government Gazette declaration of IWRM Committee members and relevant roles and responsibilities.	Assumption – Government commitment to implementing IWRM nationally and specifically, to cede IWRM decision-making to committee.	
	<b>Output 1.1 Mainstream IWRM into national policies and legislation</b>	IWRM options for mainstreaming into the national policies and/or legislation	Cabinet Submission final report.	National IWRM Plan implemented through lack of political will or change in enabling environment. Delay in delivery causes loss of political/community momentum.	
<b>Activity 1.1.1</b>	Review legislative requirements for mainstreaming IWRM into national policies and legislation	Report recommending strategies for mainstreaming IWRM into national legislation and/or policies	Final report submitted for Cabinet Endorsement	Capacity to influence political process; 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; capacity to attract/retain suitably qualified personnel	
<b>Activity 1.1.2</b>	Develop National IWRM Plan	National Plan submitted for Cabinet endorsement	Copy of the plan published in the Government Gazette	do	
<b>Activity 1.1.3</b>	Develop draft legislation and/or policies as required to improve water & wastewater	Draft legislation/policies completed and submitted to Cabinet for endorsement.	Legislation/Policies being Published in Government Gazette	do	

ACTIVITIES	DESCRIPTIONS	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/RISK	Responsible Agency
	management				
<i>Activity 1.1.4</i>	Develop and implement strategy to develop political support for mainstreaming IWRM into legislation and national policy	Supporting strategy provide to Cabinet for consideration	Enactment of polices and progressive reports	do	
<i>Activity 1.1.5</i>	A Water Sanitation and Hygiene Policy Draft	Water sanitation & Hygiene Policy submitted to government to be adopted	Cabinet Submission & Government Gazette.	do	
	<b>Output 1.2</b> Review government arrangements to provide enabling environment for IWRM	Clear roles and responsibilities in water resource management across government	Cabinet endorsing the roles and responsibility and Publishing it in the Government Gazzette	Capacity to influence political process; 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; capacity to attract/retain suitably qualified personnel	
<i>Activity 1.2.1</i>	Review institutional arrangements for IWRM to provide enabling environment for IWRM	Report outlining opportunities and barriers for IWRM implementation in Nauru and government agency roles and responsibilities	Cabinet recognition of the responsible agency and its roles	do	
<i>Activity 1.2.2</i>	Make recommendations to the Government of Nauru on the institutional arrangements for IWRM and possible management agencies	Recommendations submitted to the Government of options and Managing Agency identified	Steering committee Minute with Cabinet Submission	do	
	<b>Output 1.3</b> Develop IWRM Plan for Nauru Develop through community engagement, based on sound scientific data, management strategies based on a ridge to reef approach and strategies to increase technical and institutional capacity	IWRM Plan management in placed with strong support from the communities and relevant stakeholders	Endorsement from the National Steering Committee	Capacity to influence political process; 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; capacity to attract/retain suitably qualified personnel	
<i>Activity 1.3.1</i>	Synergise technical, community and economic studies	Report to form component of the Draft IWRM Plan consultation package.	Plan endorsed by Cabinet	Recruitment/retention of suitably skilled personnel; risks to various individual components do not compromise the value of the information	
<i>Activity 1.3.2</i>	Define level of acceptable risk in cost-benefit framework	Acceptable level of risk clearly defined in the IWRM management plan	Steering committee endorsement of the Draft for Cabinet Submission	Risks to various individual components do not compromise the value of the information; 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	



ACTIVITIES	DESCRIPTIONS	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/RISK	Responsible Agency
<i>Activity 1.3.3</i>	Develop Draft IWRM Plan	IWRM Plan drafted for consultation	Steering committee endorsement of the Draft for Cabinet Submission	Recruitment/retention of suitably skilled personnel; risks to various individual components do not compromise the value of the information	
<i>Activity 1.3.4</i>	Undertake stakeholder consultation	Stakeholders consulted and agreed on the Plan	Stakeholders meeting Minute	Risks to various individual components do not compromise the value of the information; 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	
<i>Activity 1.3.5</i>	Complete Nauru IWRM plan	Nauru IWRM Plan implemented and endorsed by Cabinet	Cabinet Submission, Government Gazette	Capacity to influence political process; 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; capacity to attract/retain suitably qualified personnel	
<i>Activity 1.3.6</i>	Development and endorsement of national IWRM indicators	Indicators endorsed by APEX body and reported nationally	APEX body minutes Presence of indicators in national level reports	Capacity to influence political process; political commitment	
	<b>Output 1.4</b> Capacity developed Nationally and resources allocated to implement policy	20% increase in national budget for IWRM activities by 2012	Endorsement by Cabinet	Co-funded Component subject to co-funding partner's priorities, resources and timeframes; Political will	
<i>Activity 1.4.1</i>	Support development of sustainable funding for implementation of Policy	20% increase in national budget for IWRM activities by 2012	Endorsement by Cabinet	Co-funded Component subject to co-funding partner's priorities, resources and timeframes; Political will	
<i>Activity 1.4.2</i>	Develop national participatory indicator framework to support IWRM implementation	National participatory M&E Framework established APEX body using Most Significant Change (MSC) and reflection and learning techniques Relevant national staff trained in participatory M&E methods	Endorsement by Cabinet Annual indicator reporting to Cabinet APEX Body Minutes Training Records Records of PM&E Consultation	Political will	
<i>Activity 1.4.3</i>	Support the development of a national Strategic IWRM communication plan	National Strategic IWRM Communication Plan	Endorsement by APEX body	Co-funded Component subject to co-funding partner's priorities, resources and timeframes; Political will	
	<b>Component 2. Sound governance to provide confidence in the transparency, accountability and credibility of decisions</b>	IWRM Steering Committee established with clear roles & responsibilities, transparency and accountability	Ministerial Endorsement, Cabinet Submission	Capacity to influence political process; Significant changes in enabling environment, including but not limited to	

ACTIVITIES	DESCRIPTIONS	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/RISK	Responsible Agency
				political and financial stability, political commitment and changes in legislation and policy; lack of development of enabling policy and legislation; capacity to attract/retain suitably qualified personnel	
	<b>Output 2.1</b> Establish IWRM Committee to develop and deliver the IWRM Plan	<b>Multi-sectoral IWRM Steering Committee established with at least 33% female membership</b>	Ministerial Endorsement, Cabinet Submission	Capacity to influence political process; 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; capacity to attract/retain suitably qualified personnel	
<i>Activity 2.1.1</i>	Develop governance framework for IWRM Committee, including Terms of Reference, roles and responsibilities and legislative and institutional links	Terms of Reference, Roles and Responsibilities identified, including Agency roles and responsibilities Authority formally embedded in legislation	Cabinet Submission & Government Gazette	do	
<i>Activity 2.1.2</i>	Develop support structure for IWRM Committee, including an executive capacity	Executive support appointed and finance in place	do	do	
<i>Activity 2.1.3</i>	Establish IWRM Committee	Appointment of IWRM Committee members, Cabinet Signoff on IWRM Committee	Committee Meeting Minute, Cabinet Submission	do	
<i>Activity 2.1.4</i>	Identify options for sustainable financing (and institutional home) of IWRM Committee, IWRM Plan and other Project Outputs	Budget provision identified and in place to sustain the IWRM Project	Government Budget report	do	
	<b>Component 3. A stakeholder engagement strategy that raises awareness, increases participation, particularly of marginalised sectors, and builds stakeholder capacity to support a sustainable IWRM plan</b>	Stakeholder engagement strategy in place raising awareness and capacity building supporting a sustainable IWRM plan	Stakeholder engagement strategy	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 (which might increase support but delay activities)	
	<b>Output 3.1</b> A Communication Strategy that facilitates increased engagement, identifying mechanisms for communicating issues, outputs and outcomes to key stakeholders and incorporates approaches targeting communication of issues, engagement opportunities and capacity building strategies to marginalised stakeholders	Communication strategy developed that facilitates increased engagement opportunities for communicating issues	PSC endorsement, Minute	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 (which might increase support but delay activities)	
<i>Activity 3.1.1</i>	Develop communication strategy in consultation with key stakeholders to raise	Communication strategy in place that accounts IWRM awareness	PSC endorsement	do	

ACTIVITIES	DESCRIPTIONS	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/RISK	Responsible Agency
	awareness and understanding of water issues and uptake of tools				
<i>Activity 3.1.2</i>	Develop range of communication tools to support the communication strategy	Range of Communication tools identified for the communication strategy	Clearly defined list of options on communication strategy endorsed by PSC	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 (which might increase support but delay activities)	
<i>Activity 3.1.3</i>	Compile data on relationship issues between human health and integrity of the ecosystem and environment for public awareness	Public information Data compiled clearly identifying issues and gaps between human health, environment and ecosystem	Awareness program, campaign and workshop	do	
	Output 3.2 Participation Strategy to increase stakeholder engagement in identifying problems and options, decision making and implementing solutions	Stakeholder Engagement Plan with Communication strategy in place	PSC 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 (which might increase support but delay activities); Capacity to retain upskilled personnel; Individual mindset being negative about the project; Stakeholders continues segregating their activities linking to waste & water management	
<i>Activity 3.2.1</i>	Develop strategy to increase stakeholder engagement in water and wastewater management, including strategies to engage and empower vulnerable stakeholders	Stakeholder engagement Plan in Water Use & Wastewater Management clearly identifying governance	Community awareness workshop records PSC endorsement of Stakeholder Engagement Plan	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 (which might increase support but delay activities); Capacity to retain upskilled personnel	
	Output 3.3 Capacity Building to provide community awareness of the importance of sanitation and waste management and water conservation, leading to enhanced water hygiene and sanitary practices; Agency and community representatives knowledge and skills adequate to lead the community and local water officers and key stakeholders skilled in water and wastewater management	Capacity building and commitment Involvement of stakeholders in the communication and awareness programme of water & sanitation management and WUE 30% increase in gender balanced community and wider stakeholder engagement in water related issues 50% increase of community engagement with government	Awareness Workshop reports, media coverage & PSC 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 (which might increase support but delay activities); Capacity to retain upskilled personnel	
<i>Activity 3.3.1</i>	Undertake capacity needs assessment for	Completion of technical, governance,	Capacity Assessment Report endorsed by	Assume that assessment is able to be	

ACTIVITIES	DESCRIPTIONS	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/RISK	Responsible Agency
	stakeholders, governance, technical and institutional needs, identifying long-term needs and priority areas for capacity building	institutional, community and managerial capacity needs assessment	PSC with defined capacity areas to be addressed and prioritisation of capacity areas	representative of broad stakeholder interests; changing political and stakeholder focus may date the strategy rapidly.	
<i>Activity 3.3.2</i>	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 Numbers of qualified local people available in & championing water sustainability by end of project	Capacity building strategy tabled and accepted Workshop reports & community activities kept by District Water Champions	Assume that assessment is able to be representative of broad stakeholder interests; changing political and stakeholder focus may date the assessment rapidly	
<i>Activity 3.3.3</i>	Develop capacity building toolkit	Develop tools identified in capacity building strategy, with a focus on priority needs	PSC endorsement of toolkit	Capacity building tools prepared in absence of initial assessment on the existing capacity and the priority needs. Capacity Tool cannot be tailor-made to suit each community	
<i>Activity 3.3.4</i>	Conduct Workshops on water conservation awareness in community centres, TV talk shows and radio announcements	30% of Household family member attending workshop on management of priorities of environment sustainability	Awareness workshop reports from organiser & Community Water Representatives endorsed by PSC	Frequent promotional events & activities conducted by respective agencies. Media supporting and approving airing of promotional programs Strong support from the Government & State owned Enterprises	
<i>Activity 3.3.5</i>	Increase targeted water and wastewater management skills through local training workshop (Train-the-trainer), implementing targeted training programs and providing scholarships for development of water officers	Two key stakeholder members trained in Water & Sanitation Management, providing training sessions <b>Increase in national staff (both men and women) across institutions with IWRM knowledge and experience by end of project</b>	Records from Training Officer, Education Department endorsed by PSC	Trained & qualified personnel taking the lead in water conservation and waste management activities, reducing the need of overseas consultants	
<i>Activity 3.3.6</i>	Conduct public education program on sanitation and water efficiency awareness	2 representatives from each communities taking the lead in educating & training their own community groups on Sanitation, & Water related issues.	Awareness workshop report endorsed by PSC	Frequent promotional events & activities conducted by respective agencies. Media supporting and approving airing of promotional programs Strong support from the Government & State owned Enterprises	
<i>Activity 3.3.7</i>	Conduct media promotion on personal hygiene & water usage	Weekly Educational Radio and TV programs produced and aired nationally. (3-5 mins short video presentation, 30 mins radio talkshow)	Broadcasting station (TV/Radio) programs	Frequent promotional events & activities conducted by respective agencies. Public Communication medium promoting waste management, water conservation and local environment sustainability Media supporting and approving airing of promotional programs Strong support from the Government & State owned Enterprises	
<i>Activity 3.3.8</i>	Implement other activities in capacity building strategy through awareness raising campaigns, targeted workshops, partnerships, broad consultation,	Annual reporting identifying reduced needs for lower capacity development and increasingly complex capacity development needs	Awareness programs, workshop reports, school activities Annual progress reports endorsed by PSC	Changes in stakeholder roles, responsibilities and focus; Significant changes in enabling environment, including but not limited to political and financial	

ACTIVITIES	DESCRIPTIONS	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/RISK	Responsible Agency
	recruitment, education and use of toolkits			stability, political commitment and natural disasters (which might increase support but delay activities); Capacity to retain upskilled personnel	
<i>Activity 3.3.9</i>	Develop animated/Documentation video on how DCT works and the impacts to the environment, Project awareness on water related issues in country	Public knowledge on DCT, knowledge of IWRM approach to address water resources issues in Nauru .	Copy of DVDs, endorsement by PSC for broadcasting on local tv and distribution to the public	Reliant on out source expert and availability of suitable equipment for production, quality of production	
	<b>Component 4. Complete targeted scientific and technical studies to inform water and wastewater management</b>	A water & sanitation awareness developed to a level that enables stakeholder and community participation in the development of integrated water & wastewater management plan.	Water & Wastewater management plan endorsed by Cabinet	Reliant on co-funded activities, with associated funding, commitment, integration, resources and timing concerns; Assumed that sufficient information is obtainable to provide confidence in results, adequate resources available, adequately skilled people can be attracted and retained and that complex systems can be simplified to provide meaningful results	
	Output 4.1 Develop options for better wastewater management to inform the IWRM Committee	Best practices on water use efficiency & wastewater management identified with recommendation for PS Committee <b>20% reduction in groundwater pollution from sewage and manure over site</b>	PSC Minute/endorsement <b>Groundwater monitoring program results endorsed by Steering Committee</b>	New Sanitation Policy enforced Sewerage removal services reliable Communities providing labour assistance to the projects	
<i>Activity 4.1.1</i>	Conduct feasibility studies on the rehabilitation of the NPC system using sea water or other water source for flushing of toilets.	Consultant(s) full evaluation report submitted for PSC & Government consideration & endorsement	Cabinet submission	Communities willing to accept the proposed system, landowner failing to cooperate, reliant on co-funding activities, capacity to influence political support	
<i>Activity 4.1.2</i>	Conduct inventory on districts HH Rainwater Harvesting & Sanitation systems	Inventory on HH Water Harvesting & Sanitation systems, identifying types and status.	Inventory report endorsed by Technical Committee	Communities not cooperating, lack of manpower/will power to collect data.	
<i>Activity 4.1.3</i>	Identify and recommend most suitable methodology/prototypes to upgrade and improve the existing HH sanitation and wastewater systems to reduce contamination to the underground water	Options and appropriate prototype systems identified for PSC consideration	Cabinet submission on preferred method/system for demo	Mismatch of systems failing to take into consideration of relevant issues due to financial limitations, High cost of system and lack of after sale support. Restriction of area space for the new system. Not accepted by communities.	
<i>Activity 4.1.4</i>	Identify suppliers and procure required prototype sanitation systems. MoA on warranty, technical support and installation/maintenance/user training programs.	Suppliers identified & Quotation with after market support agreement provided for PSC consideration	PSC endorsement to proceed with procurement	Communities not cooperating, target area/household not secured as a result of demand, system being damaged or parts pilfered during transit, system failure in performance, lack of qualified people to install and maintain	
<i>Activity 4.1.5</i>	Identify suppliers and procure grey	Suppliers identified & Quotation with after	PSC endorsement to proceed with	Communities not cooperating, target	

ACTIVITIES	DESCRIPTIONS	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/RISK	Responsible Agency
	wastewater treatment systems. MoA on warranty, technical support and installation/maintenance/user training programs.	market support agreement provided for PSC consideration	procurement	area/household not secured as a result of demand, system being damaged or parts pilfered during transit, system failure in performance, lack of qualified people to install and maintain	
<i>Activity 4.1.6</i>	Procure constructional services to install the prototype systems	Constructional service engaged in installing the prototype systems	Endorsed Contract/ToR	Insufficient fundings, inadequate equipment, tools and skilled manpower	
<i>Activity 4.1.7</i>	Identify household or community areas where prototype systems to be installed	Targeted HH or area being identified, proposal submitted for PSC consideration	PSC endorsing of proposed location for the prototype.	Communities lack of will power to volunteer, size of work involved being underestimated, proper equipment and basic tools not available. Communities not willing to cooperate	
<i>Activity 4.1.8</i>	Install prototype (Sanitation and greywater) treatment system in targeted household or in selected areas	Prototype treatment system installed into targeted HH or area for trial and monitoring on feedbacks	System performance assessment reports replication strategy	Insufficient fundings, system mismatch, underground water test negative contamination	
	<b>Output 4.2 Develop strategies for reducing vulnerability to water shortages and drought</b>	<b>Water Use Efficiency strategies developed and in place.</b>	<b>PSC endorsement &amp; Cabinet Submission</b>	<b>Assumptions: National potable water supply is sustainable</b>	
<i>Activity 4.2.1</i>	Increase coverage of suitable rainwater tanks (sustainable for 30-40 years) through procurement	Majority of dwellings have suitable tank harvesting rain water by end of project	AMU, DPPD & ECW Statistic records on numbers of dwellings with suitable water tank(s) & recently installed tanks	Sourcing of alternative non-portable water source to Location not supported by government Additional tanks not provided Household roofing, gutters and downpipes in poor conditions or damaged not harvesting rain Communities perception on water & waste management being negative	
<i>Activity 4.2.2</i>	Review potential groundwater options for water supply under day-to-day and emergency response conditions, outlining limitations, threats, capacity and mechanisms for development	Report produced with recommendations.	PSC endorsement and Cabinet Submission	Reliant on co-funded activities, with associated funding, commitment, integration, resources and timing concerns; Assumed that sufficient information is obtainable to provide confidence in results, adequate resources available, adequately skilled people can be attracted and retained and that complex systems can be simplified to provide meaningful results	
<i>Activity 4.2.3</i>	Develop Replication Strategy aligned with recommended institutional changes for replicating the study learnings and outcomes locally, nationally and regionally	A plan identifying water and wastewater management needs at a national level, identifying mechanisms for transferring learnings and tools and key policy and financial enabling factors <i>Replication Toolkit, National scaling-up by June 2013, including inclusion of lessons in national project activities</i>	PM progressive reports	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	
<i>Activity 4.2.4</i>	Community awareness on climate change	Communities now more conservative and	Workshop report endorsed by PSC &	Changes in stakeholder roles,	

ACTIVITIES	DESCRIPTIONS	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/RISK	Responsible Agency
	proofing measures ensuring resilience to water shortages and droughts	prepared to the climate change impact	promotional & educational materials on water conservation and best practices	responsibilities and focus; Significant changes in enabling environment, including but not limited to political and financial stability, political commitment and natural disasters (which might increase support but delay activities); non-existence of contingency plan	
	<b>Component 5. Implement the IWRM Plan</b>	IWRM plan integrated into national policies and legislations	Cabinet Submission & Government Gazette	Reliant on donors providing support to strengthen the program, with associated funding, commitment, integration, resources and timing concerns; Assumed that sufficient information is obtainable to provide confidence in decisions, adequate resources available, adequately skilled people can be attracted and retained	
	<b>Output 5.1</b> Appropriate monitoring to assess potential changes to groundwater	Monitoring program implemented	Results assessed and annual reports tabled to PSC & Cabinet	Monitoring & Evaluation programs not practiced, Contamination induced from other sources other than anthropogenic	
<i>Activity 5.1.1</i>	Monitoring pollution from anthropogenic sources to show improving quality of underground water	All ground water sources & Sanitation systems, inspected & monitored	Results assessed and annual reports tabled to Cabinet	do	
<i>Activity 5.1.2</i>	Treatment of shallow wells & boreholes close proximity of sewerage systems	Shallowwells & boreholes in critical location being inspected more regularly and treated	health officers inspection report	do	
<i>Activity 5.1.3</i>	Monitor the prototype systems and any activity changes to its environment/communitiy feedback	Trial systems including its environs being closely monitored and user feedback recorded	Feedback/evaluation reports	do	
<i>Activity 5.1.4</i>	Develop water/sanitation audit toolkit for community uses and self evlauavtion at household level	User friendly Water/Sanitation evaluation toolkit developed and available to communities	Availability of the Toolkit	Toolkit not available, insufficient funding to sustain prouduction of toolkit, communties not the benefit of the assessment	
	<b>Output 5.2</b> Executive and secretariat support for IWRM Committee as identified in IWRM Plan	Establishment of support staff	Ministerial approval and information being Gazetted	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	
<i>Activity 5.2.1</i>	Identify PSC support requirements, roles and responsibilities and funding mechanisms	ToR and guidelines on roles and responsibilities with funding mechanisms	ToR with clear funding mechanism	Lack of political will to support sustainable funding mechanisms	
<i>Activity 5.2.2</i>	Establish executive support unit	Water Unit established	Focal Point endorsement	Changes in stakeholder roles, responsibilities and focus; Significant changes in enabling environment, including but not limited to political and financial	

ACTIVITIES	DESCRIPTIONS	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/RISK	Responsible Agency
				stability, political commitment and natural disasters (which might increase support but delay activities); Capacity to retain upskilled personnel	
	<b>Component 6. Successfully deliver the Nauru IWRM Plan</b>	IWRM Plan in place and enacted	Stakeholders progressive reports	Reliant on donors providing support to strengthen the program, with associated funding, commitment, integration, resources and timing concerns; Assumed that sufficient information is obtainable to provide confidence in decisions, adequate resources available, adequately skilled people can be attracted and retained	
	<b>Output 6.1 Successfully managed project</b>				
<i>Activity 6.1.1</i>	Establish Project Management Unit	Establishment of PMU Office including staff recruited	Signed Contracts, Office location.	Assumed that adequately skilled people can be attracted and retained	
<i>Activity 6.1.2</i>	Identify stakeholders, including co-funding donors and clarify roles, expectations and responsibilities	key stakeholders, co-funding donors identified with clear roles & responsibilities	Stakeholders workshop & MoA	Changes to stakeholders throughout the project have the potential to change project focus	
<i>Activity 6.1.3</i>	Manage budgets, deliverable and timelines	Budget & AWP in place	PSC endorsement	Further changes to GEF budgets or co-funding may compromise all three components. Risks identified above also likely to impact on budgets, deliverables or timelines	
<i>Activity 6.1.4</i>	Develop and implement project participatory M&E programme	Participatory M&E programme Project Reporting incorporating M&E Results	Endorsement of Steering Committee	Stakeholder cooperation	





## Annex 5 – Photo Journal

*Left:* Description of photo including project context

*Above:* Description of photo including project context

*Right:* Description of photo including project context

*Above:* Description of photo including project context

*Above:* Description of photo including project context

## **Annex 6 – Awareness materials and media coverage**

## **Annex 7 – Participatory monitoring and evaluation plan**

## **Annex 8 – Replication and scaling-up strategy**