

Solomon Islands Country Briefing Paper

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1. Introduction

The Water resources in the country is controlled by government but owned by the Landowners. In its attempt to protect and manage this important resource, the government is trying to come up with legislation to make this resource a state matter. But due to the complexity of the issue, the government is yet to come up with that legislation. Currently, there is limited water legislation's to effectively protect and manage this resource in the country. These few legislations cover only areas between the urban centers.

Three government ministries directly involved in the assessment, planning, development and management of water resources. These include the Ministry of Mines and Energy (MME), Ministry of Health and Medical Services (MHMS) and the Ministry of Transport and Aviation (MTWC). The MME has a water division that deals with issues regarding water. The MHMS looks after the health aspect of water including the Rural Water Supply and Sanitation Programme (RWSS). RWSS is a programme aimed at improving the quality and access of clean water to the rural areas. It has been actively involving rural people in assisting in implementing rural water supply and sanitation projects

The national government aims to provide a comprehensive evaluation of the nations water resources in relation to potential use and through appropriate legislation and policies to ensure that optimal development is achieved. The Water Resources Division in the Ministry of Mines, Energy and Water is therefore responsible for the following:

- ?? Drafting of new water resources legislation for the optimal use of water resources and for the protection of the resource from over exploitation.
- ?? Locating and assessing ground water resources and providing adequate surface water resources information, both for domestic and industrial water supplies and irrigation.
- ?? Evaluation of stream flows suitable for potential hydropower development.
- ?? Assessing of flood flows and their frequencies for bridges and roads design and river control projects

Water resources

Water resources in the country is abundant due mountainous topography It ranges from sizeable rivers to small streams. However, low lying atolls and islets rely on rain water and underground aquifers of thin fresh water lens. The abundance of water caused many to take this fragile and finite resource for granted. However, it is evident in Solomon Islands the quality and quantity of water is reducing at an alarming rate. Lack of adequate reliable hydrological data and funds to collect detail data are major constraints.

Bad development practices such as logging and the traditional slash and burn method of farming have gradually or systematically destroyed the rivers and streams, threatening the availability water to many parts of the country.

Water supply and Sanitation

RWSS has been actively involving rural people in assisting in implementing rural water supply and sanitation projects, while the Solomon Islands Water Authority is responsible for the Urban Centers.

2. National consultation process

Details of the consultation process

Financial constraints do not allow for wider consultation to all sectors, however, a working group was formed involving the major stakeholders of the water resources in the country. These include:

1. The three ministries directly involved with the management of the water resource. They are Ministry of Mines, Energy and Water, Ministry of Health and Medical services and the Ministry of Transport works and Aviation.
2. The Rural water supply and Sanitation under the ministry of Health and Medical Services is responsible for implementing rural water supply and Sanitation projects throughout the country.
3. Ministry of Finance is involved with the Financing and donor agencies.
4. Ministry of national Planning is responsible for the overall planning and donor agencies.
5. The worldwide Fund for nature representing the NGO's.
6. Solomon Islands Water Authority established under the act to look after the urban water developments.

List of stakeholders involved in the consultation process.

Government

- ?? The three ministries directly involved with the management of water. These are Ministry of Mines, Energy and Water, Ministry of Health and Medical services and the Ministry of Transport works and Aviation.
- ?? The Rural water supply and Sanitation under the ministry of Health and Medical Services who is responsible for implementing rural water supply and Sanitation projects throughout the country.
- ?? Environmental Health Division, Ministry of Health and Medical Services.
- ?? Ministry of Finance.
- ?? Solomon Islands Water Authority (SIWA) established under the Act of Parliament to look after the urban water developments.

?? Solomon Islands Meteorological Services

Non-governmental organizations

?? The worldwide Fund for nature representing the NGO's.

The stakeholders involved were asked to put in their submission to the working group who put together the final draft. The views and ideas in the submission were included in the briefing paper.

3. Vision, Issues and Constraints

National visions towards sustainable water resources management

The National Vision is to have an abundance of clean water that is accessible to all Solomon Islanders. This involves the protection of all water sources, sustainable use and development of water and making sure that high quality water is accessible to all levels of society.

This vision is inline with the United Nations effort for the eradication of poverty through sustainable development.

In achieving the vision above it is important to consider the priorities and obstacles the vision on the following thematic issues:

Theme1: Water Resources Management

Fresh water Availability

Water is a vital resource in the country and must be protected and through proper managed and sustainable use. This responsibility lies with the Water resources division at the Ministry of Mines and Energy.

Priority 1: Protection of water sources

- Obstacle:
- Limited legislation
 - Difficulty in access due to customary ownership of land where water sources are.
 - Lack of Funding
 - Lack of trained staff to carry out the legislation and policies
 - Lack of understanding of hydrological information

Priority 2: Accessibility of water to all, particularly in the rural areas.

- Obstacle:
- Inadequate funding
 - Inappropriately staffed to carry out the tasks

- Lack of appropriate legislation's
- Community projects are not sustainable
- Lack of understanding of hydrological information

Aquifer Management

Priority 1: Where fresh water may be difficult to access by way of surface water sources, development must be restricted to such areas so as not pose threat to polluting underground water sources including aquifers.

- Obstacle;
- Awareness to the water source owners, that any development would be destroy the water sources.
 - Appropriate technologies for the extraction of water
 - Selfish decision on quickly getting rich so as not to consider these important issues

Water Quality

Water quality is an issue that may not be easily and effectively dealt with now at the rural areas, but it is one that is of utmost importance in the long term. Water quality analysis in Solomon Islands is a major problem. Most of the existing laboratories are incapable of analyzing required analysis as specified in the International standards for water quality. Currently, SIWA is treating Honiara water supply system using chlorine. International scientist had linked such treatment of water supply and Kidney problem [goldstone]. Deforestation had reduced the quality of water in Solomon Islands. Appropriate land management is very important for all water resources from contamination.

Theme 2: Island Vulnerability

Disaster preparedness

The occurrence of disasters may be considered in two folds. That which is caused by humans interfering with nature or that which is caused by natural means.

The vision for disaster preparedness regarding human interference is to make the public aware of the vulnerable state of our small islands with limited water resources. More education particularly rural people not to make selfish decisions regarding land use such as traditional gardening methods, granting of rights for unsustainable logging operations on water sources and other developments that can cause contamination to water. Also, to educate our smaller coral atoll islanders about the problems of sanitation facilities. Wastewater intrusion from sanitation facilities in such communities may be considered a disaster. The RWSS has done some awareness as part of their programme but admitted that what they did is not enough. There must be rigorous campaigning to make the people of such issues.

Climate adaptation

Natural disasters on the other hand are at best of times unavoidable. However educating the public on its effects on water sources and supplies is important. With climate adaptation, the best that can be done now is to provide relevant adequate information to the general public who may be ignorant on such issues or restricted due to lack of it.

Climate variation poses new threat to this scarce resource. The effect of variation had been seen in several part of the country. The trend of annual precipitation is the main source for recharging freshwater in rivers, streams and groundwater. It is very likely that the river and stream flow is also declining. With the increase in temperature, it is expected that evapotranspiration will also increase.

Under this trend of historical records, Solomon Islands is likely to face shortages of freshwater in certain parts and low fresh water in the rest of the country.

Dialogue on climate and water

The presence of many low-lying atolls in the country must be acknowledged. These people even at the best of times live with the reality of shortage of water. They now complain of Sea-water intruding into their well and their drinking water now taste brackish water. Any disaster of any magnitude would have disastrous effect on their livelihood.

Theme 3: Awareness

Advocacy

Awareness is an integral part of any management strategy taken to protect water resources and must be carried out on all sectors of society. Lack of information had been a cause of negligence of people to look after this resource. Perhaps very low literacy rate particularly among the rural populace seems to play a part. However, lack of dissemination of such important informations due to lack of funds and staff plays a major part of it. If this resource is to be protected, this must be an area to start because water resources are on the land owned by the people. People, particularly landowners of water sources must be made aware of the importance of water sources, and the need for protection. People must also be made aware that water is a finite resource and can also become scarce if it is not managed properly.

Political will

Existing legislation relating to water resources include the Solomon Islands Water Authority (SIWA) Act 1992, the River Waters Act of 1969 (cap 96), the Environment Act (1998) and the Public Health Ordinance (1970). Under these Acts, each government institutions has vested responsibilities to enforce activities ranging from the construction of urban reticulation systems, issue of water permits and licenses, protection of water sources in the areas of operation, protection of the environment from pollution and the supplying of potable water that meets the required health standards.

Unfortunately some of them, specifically the River Waters Act are limited to Specific urban water supply catchment areas and offer no protection over a majority of natural streams and catchment areas in the country.

Efforts are made to supplement the existing River Waters Act by drafting a new one, to be called the Water Resources Act to cover all water resources in the country. This would the enable the government to draw up a water resources policy, which would be promulgated. A project has already begun in 1997 with assistance from UNDP but continuity in funding the project was the main constraint.

In 1998 the Solomon Islands for Alliance for Change (SIAC) government gave approval for the drafting instructions to go ahead. The task came to a halt at the height of the ethnic unrest and the subsequent removal of the SIAC government in 2000. At present efforts are still made to continue from where it was left. Over the last four years three successive governments were in place and has different priority in policies, therefore resubmission to cabinet has to be made before drafting can begin. However, the statement of policies of the current government is similar to that of previous governments hence the task should proceed.

Community participation

The RWSS program adopts a mixture of both the "bottom up' and 'top down' approaches in conducting consultations with communities. The national consultation process in general may be stated in a general manner as such.

Stage 1. Community Initiative

A community having realized the need for clean and accessible water communicated to the next hierarchy who normally is provincial employee who will be taking the matter further.

Stage 2. The enquiry

The community representative assigned with the job of delivering the concern to either a RWSS sub-station or a RWSS provincial office or directly to the Head Office in Honiara with a proposal.

Stage 3. Dispatch of Technical personnel

RWSS would dispatch an officer to conduct a survey, collecting relevant data and informations that may be useful in the design of the new water supply.

Stage 4. Using raw data as a basis for design

Data collected from the field and manipulated by RWSS technical form the base of the design. It is from these designs that important decisions are made. Such as technical viability, economic rationalization, socially acceptable with sanitation projects and promise of community participation of both water and sanitation projects.

Stage 5. Implementation Phase

The implementation phase is the hands on stage where the system infrastructure is physically built. Overseers are sent to supervise the work

Stage 6. Monitoring Stage

This is a dynamic stage that is still evolving in the program structure, while at present although some monitoring is being conducted, it is not formally entrenched in the system set up.

Environmental understanding

It must be realized that a water resource is dependent on and part of the environment. It cannot be isolated from it, and measure to address the issue of water must be simultaneously done with other environmental issues. Hence, to understand water, the whole environment must be understood. To protect water, the environment must be protected.

Therefore, bad development practices that are harmful to the environment must be avoided if we are to protect the water resources.

Gender balance and equity

It is important to realize that the main users of water are the women. They must be given the chance in the decision making process in the management of water.

Theme 4: Technology

Appropriate technologies for water supply and waste water treatment

RWSS has been employing sustainable and appropriate technologies in all engagements with provision of its services. Appropriate technology for each location is site specific. That which is appropriate at one location does not have

to have to be applicable in another situation. Three main types of water sources extraction methods employed by RWSS are; using gravity feed systems, the use of rain and roof catchments and hand dug wells using hand pumps.

Demand management and conservation

Demand management and conservation form the basis of our water supply system designs.

It covers the following areas:

?? Leakage control

?? Metering and pricing

?? Water saving devices

However, there is a lack of appropriate education awareness on this demand management and conservation.

Human resources

Apart from RWSS, which have the human resources capacity to carry out most of its daily activities, there is a need for trained qualified and skilled personnel in the administration of policies and legislation's in other institutions.

Theme 5: Institutional arrangements

Policy

The important factor in formulating a new water resources act is to cater for the sustainable development of water resources in the country. So much has been noticed in other water stressed regions of the world whereby water resources become scarce, contaminated and destroyed due to bad development practices. It is therefore time to put in place a comprehensive legislation that will take care of future developments, which may likely to threaten the country's water resources.

Planning and legislation

The overall planning for water resources development in the Solomon Islands is done at the central government level and usually involves a number of ministries. No single body in the government formulates plans for overall water development. The Ministry of Transport, Works and Aviation for urban water supplies development and the Ministry of Health and Medical Services deals with rural water supply and sanitation aspects.

The government in trying to fulfil its aim in the field of water resources, has so far identified a few basic objectives for the optimal utilization of water resources.

These plans include water supply and proper sewerage disposal for all the population, assessment, proper management and conservation of the resource. Included in these plans is the requirement for training to be provided to nationals in all aspects of water resources.

Institutional strengthening

Due to inadequacy of current policies and legislation's institutions are fragmented and there is confusion over roles. This often led to duplication of duties, which should be done by a single institution or ministry. Also, it also led to negligence of some important duties that needs to be carried out.

The government needs to come up with clear guidelines of responsibilities to avoid confusion and better cohesion in the administration of this sector.

Theme 6: Finance

Costs and tariffs

The RWSS program has had assistance from international donor communities for a number of years. The government however, needs to initiate a self-help program aimed at a slow but steady and gradual introduction of tariffs as along term strategic goal in the rural areas.

However, the general objective of finance must be the planning and management within limited available resources. The program has financial guidelines for both operation and development activities.

Alternative models

Role of donor organizations and financing institutes

The role of the donor communities must be to assist the government of Solomon Islands draft and implement legislation's and Policies on water if we are to protect this vital resource for our country. This should include financial assistance and manpower training to administer and carry out these legislation's and Policies.

Being the Ministry responsible for managing water resources in the country, the Ministry of Mines, Energy and Water is obliged to seek external assistance, given the acute economic situation facing the country at the moment, and proceed with the task.

4. Plan of Action

Theme 1: Water resources management

- Objectives

- Actions already taken
- Future actions needed

~~///~~National level

The existing River Waters Act must be supplemented by the Water Resources Act to cover all water resources in the country. This would enable the government to draw up a water resources policy, which would be promulgated.

~~///~~Regional level

~~///~~International Cooperation

- Means of implementation and responsibilities

Theme 2: Island Vulnerability

Objectives

The country through the Ministry of Mines and Energy must:

- I. Be able to collect and disseminate information regarding the status of water resources in the country.
- II. Have strategic policies in place to address problems arising.
- III. Cooperate with other nations and organizations to address common problems

Actions already taken

Future actions needed

~~///~~National level

To fully understand the implication of climate variation and threat of the changing historical records, we need to understand the hydrology of our Islands and be able to do proper waste assessment of this fragile and now vulnerable resource. The Ministry of Mines and Energy is the responsible authority to collect information for better preparation against natural disasters. Training for qualified and skilled personnel need to be done in order to carry out these important tasks.

There must be a political will to address these issues. The government need to prioritize this sector in terms of policy and financial support to better manage this resource.

Regional level

Since we share the Island status with neighboring island states, data and information on climate and water must be shared to better prepare for the changes that are inevitable.

There must also be regular meetings to exchange ideas on how best some Island states have dealt with common problems. This way other states can learn from them.

Also, there is a need to collectively address common problems such as global warming and El Nino etc.

International Cooperation

It is a proven fact that no stand-alone person or country could deal with, let alone successfully, global issues single handedly. It is therefore, an imperative responsibility for Solomon Islands to team up with other countries and organizations to voice our concern.

Whilst we along with the third world and developing countries are likely, to be at the forefront of encountering adverse climatic change effects, our developmental efforts contributing to affecting climate change is only minimal. Hence, we ought to band together and demand of our developed counterparts to lessen, if not develop alternative technologies and means to minimize at all cost their activities; that is creating this global catastrophe that we are already staring in the face.

Solomon Islands membership of organizations, both regionally and globally must continue. This includes membership of, say, the South Pacific Regional Environmental Program (SPREP) and the United Nations Environmental Program (UNEP) and other interested stakeholders. We must speak out about effects that we are already encountering and potentially disastrous impacts these may have on us and other small islands and low lying countries and communities.

Theme 3: Awareness

- Objectives

The people must be made aware of:

- I. the importance of water
- II. the need for the protection of water sources
- III. the effect of bad development practices on water
- IV. Status of the water resources in the country

V. Water is a finite resource and must not be taken for granted

Actions already taken

Little has been done by relevant government authorities in this area, except for RWSS and non-government organization like SIDT.

- Future actions needed

National level

More awareness programs needed particularly in the rural areas where most of the water source owners are illiterate and are not aware of the effects of bad development practices on water.

More legislations needed to for the management of protection of water resources in the country.

Regional level

Dissemination of informations and regular meetings between Island states is needed to address common problems and share ideas.

International Cooperation

Closer collaboration between developed countries and developing countries on the sharing of informations, appropriate technologies and funding to address these issues.

Means of implementation and responsibilities

The responsibilities must lie with the relevant government authorities to take a leading role on these activities. They must come up with clear policy guidelines on the institutions that implement these programs.

Theme 4: Technology

Objectives

The country in addressing these issues must:

- I. Acquire appropriate technologies to develop the water resources
- II. Apply appropriate technologies
- III. Seek informations on relevant technologies available
- IV. Seek technical assistance on such technologies

V. Train local staff on relevant technologies used

- Actions already taken
- Future actions needed

✍️ National level

✍️ Regional level

✍️ International Cooperation

- Means of implementation and responsibilities

Theme 5: Institutional arrangements

- Objectives
 - To formulate clear policy guidelines for the administration of the water sector
 - To have cohesion in the administration of the water sector
 - Institutions must be clear on their roles and that of other institutions so as to avoid confusion and promote better communication between institutions.
 - Sharing of information's between institutions on areas of common interest
- Actions already taken

Work on the drafting of relevant legislation's to allow for the policies has already began but ceased due to change in government's priorities and discontinuity of funding.

- Future actions needed

✍️ National level

Drafting of the legislations and policies must be completed to allow for other developments in the sector to come up. At the moment there is little progress due to the lack of those.

There needs to be clear guidelines on the roles and functions of each of the institutions sharing responsibilities on this sector. Strengthening of these institutions should be done so that the implementation of policies can be carried out effectively. Technical assistance be sought from developed countries who had experiences in this sector to assist us strengthen our institutions.

Theme 6: Finance

Objectives

The general objective must be the planning and management within limited available resources.

Actions already taken

The RWSS program has had assistance from international donor communities for a number of years. This must be allowed to continue by seeking further assistance.

Future actions needed

~~///~~ *National level*

Financial assistance must be sought to begin this process of drafting legislation's and the subsequent policy on water.

The government however, needs to initiate a self-help program for RWSS aimed at a slow but steady and gradual introduction of tariffs as along term strategic goal in the rural areas.

~~///~~ *Regional level*

~~///~~ *International Cooperation*

IV. Conclusions

Solomon Islands is at a crucial stage, to develop a sound understanding of the water resources. We will be facing problem in the future, unless the government seriously address the trend of the changes and climate variations that is slowly affecting our water resources.

The government with the assistance of donor partners need to address the following recommendations to minimize the likely impact the changes and variations will do to our fresh water resources:

- ?? Develop an institutional strengthening and capacity building program within various government departments and ministries and statutory authority.
- ?? Develop a comprehensive network and program for effective data collections
- ?? Undertake a comprehensive assessment of water resources and developing local understanding of the impact of the climate change and variations to the islands and fresh water resources

- ?? Review the existing rural water supply and sanitation project and develop a sustainable management mechanism such provision of training of village water supply and sanitation technician and tariff for maintenance and operation
- ?? Develop a comprehensive education and training program on water resources and its related issues
- ?? Develop clear policies and regulations for the management and protection of water resources in the country.
- ?? Work together with regional and international organizations to address common problems and issues related to the water resource.