ANNEX: 4

WATER SAFETY PLAN PROGRAMME

VANUATU
NATIONAL PLAN

DRAFT

SEPTEMBER
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Prepared during the National Water Safety Plan Training & Planning Workshop at Melanesian Hotel, Port Vila, Vanuatu, 4th – 8th September 2006.

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INTRODUCTION

The importance of safe drinking water for health and development in the Pacific Island Countries has been reflected in many regional action plans and policies. Through the Regional Action Plan on Sustainable Water Management (Sigatoka, Fiji, 2002) Pacific Island Countries outlined actions that were needed to achieve sustainable water management through collaborative efforts by water sector authorities and inter-sectoral partners.

The WHO workshop on Drinking Water Quality Standards and Monitoring in Pacific Island Countries (Nadi, Fiji, 2005) developed a Framework for Action on Drinking Water Quality and Health in Pacific Island Countries, designed to support the implementation of drinking water quality actions envisioned in the RAP.

The Pacific Island Countries embraced the Water Safety Plan concept during the workshop and this was reflected in the Regional Framework. It was recommended that PICs should use Water Safety Plans to better manage their water supplies to ensure safe quality drinking water for Pacific communities.

The Government of Vanuatu, through various government and non-government agencies including Department of Public Works, SANMA Provincial council, SHEFA Provincial Council, Ministry of Lands, Department of Geology Mines and Water Resources, Ministry of Health, Environment Unit, Forestry Department, Meteorology Service, Tagabe River Management Committee and NGOs, are committed to establish Water Safety Plans for urban, rural and outer-island water supplies.

A Steering Committee for the Vanuatu Water Safety Plan Programme has been established and consists of relevant agencies, both government and non-government. The Department of Geology, Mines and Water Resources is the secretariat for the Steering Committee as well as the lead implementing agency.

Other agencies such as the Department of Public Works, SANMA Provincial council, SHEFA Provincial Council, Ministry of Lands, Ministry of Health, Environment Unit, Forestry Department, Meteorology Service, Tagabe River Management Committee and NGOs, are members of the Steering Committee.

BACKGROUND

The Pacific Water Safety Plan Programme

The Pacific Water Safety Plan Programme is a joint initiative of the South Pacific Applied Geo-science Commission (SOPAC) and the World Health Organization (WHO).

Funded by AUSAID, the programme is a response to the regionally endorsed Framework for Action on Drinking Water Quality and Health and will be implemented over the period 2006-2007.

The programme plans to improve the health of people in the Pacific through strengthening of national capacity to maintain safe drinking water supply systems.

Water Safety Plans (WSP), as promoted by WHO in the Guidelines for Drinking Water Quality (Third Edition), are tools that allow for proactive approaches to ensuring safety of a drinking water supply using risk assessment and management approaches to identify risks of contamination of water supply and allow for sufficient mechanisms to manage these risks.

The primary objective of a Water Safety Plan is to minimize contamination of water sources, prevent or remove contamination during treatment and prevent contamination during storage and distribution.

These objectives are equally applicable to large reticulated water supplies; smaller community managed systems as well as individual household systems.

WHO Guidelines for Drinking Water Quality

Drinking-water quality control is a key issue in public health policies. From 1950 to 1970 the World Health Organization (WHO) published standards for drinking-water quality that served as a scientific basis for monitoring the quality of the water produced and delivered by water suppliers. Later on, other legislative and regulatory approaches were published by the WHO and the European Union (EU): WHO Guidelines for Drinking Water (1st edition, 1984, and 2nd edition, 1993), and EU Directives 80/778/EC, and 98/83/EC (EC, 1998). This legislation was strongly focused on standards for treated drinking water and on compliance monitoring. Water quality was guaranteed by the so-called end product testing, based on spot sampling of the water produced. With this procedure it was possible to bring the very widespread water-borne diseases under control, especially those of bacterial origin.

Over the years, several shortcomings and limitations of the end-product testing methodology has been identified. Some of them are related to the following aspects:

a) There is a multitude of water-borne pathogens that cannot be detected or they can be detected insecurely with the classical indicators *E. coli* Coliforms and *Enterococci*, particularly viruses and protozoa. There are examples of water-borne disease outbreaks (*e.g.*, Milwaukee - U.S.A., in 1993) that occurred through water supply systems that met the standard for absence of indicator micro-organisms.

b) Often, monitoring results are available out of time of intervention needed to maintain the safety of a supply system. End product testing only allows checking if the water delivered was good and safe (or unsafe) after distributed and consumed.

c) End-product testing hardly can be considered a sound method for representative water quality *status*. A very small fraction of the total volume of water produced and delivered is subject to microbiological and chemical analysis. Moreover, the monitoring frequency does not guarantee representative results in time and space, as well.

d) End-product testing does not provide safety in itself. Rather is a mean of verification that all the supply system components and installed control measures are working properly.

In recognition of these limitations, primary reliance on end-product testing is presently considered not to be sufficient to provide confidence in good and safe drinking-water, moving towards to process monitoring by introducing a management framework for safe water (Bartram *et al.*, 2001). The 3rd edition of the WHO Guidelines for Drinking-water Quality, (GDWQ) proposes a more effective risk assessment and risk management approach for drinking-water quality control. The GDWQ emphasize the multi-barrier principle, establishing a systematic process for hazards identification and effective management procedures for their control through the application of a preventive Water Safety Plan (WSP) that comprises all steps in water protection, from catchments to the consumer (2001; WHO, 2004).

Water Safety Plan

1. A Water Safety Plan (WSP) is an improved risk assessment and management tool designed to ensure the delivery of safe drinking water to consumers. It identifies:

- hazards that the water supply is exposed to and the level of risk associated with each;
- how each hazard will and/or can be controlled;
- how the means of control will be monitored;
- how the operator can tell if control has been lost;
- what actions are required to restore control; and
- how the effectiveness of the whole system can be verified.

Developing a Water Safety Plan

The development of a WSP involves a systematic approach for:

- preventing the contamination of source waters
- treating water to reduce or remove contaminants; and
- preventing re-contamination during storage, distribution and handling of treated water

In order to do this, the water authority or supplier needs to:

- assemble a team that understands the system;
- identify risks, hazards and hazardous events;
- identify means for controlling these risks, hazards and hazardous events;
- establish a monitoring system to ensure consistent supply of safe drinking water; and
- periodically review the Water Safety Plan.

To develop and establish a WSP, some essential prerequisites are required such as

getting commitment from Government, Managers and Executive Officers.

Once commitment is achieved, a WSP steering committee is established (consisting of relevant stakeholders such as health and environment professionals as well as the water supplier), the water supply system is described and risks identified, control measures are identified and monitoring systems developed.

ORGANISATIONS INVOLVED

Department of Geology, Mines and Water Resources

The Department of Geology, Mines and Water Resources (DGMWR) is the agency responsible for planning, design and installation of public water systems in rural areas in Vanuatu including outer islands. The DGMWR establishes small water supply schemes such as hand-pumps, rainwater harvesting, and direct (and indirect) gravity feed systems for rural villages. They are also responsible for training communities on the operation, management and maintenance of these schemes.

DGMWR is the lead implementing agency for the Vanuatu Water Safety Plan Programme and are a key agency in the replication of WSPs in other supplies in Vanuatu. They are also the secretariat for the National Steering Committee.

Ministry of Health

The Public Health Division of the Ministry of Health is the agency responsible for monitoring and surveillance of the biological quality of public water supply schemes. They have existing programme for regular water quality monitoring of public water supplies. These could be strengthened through Water Safety Plan pilots.

The MoH also have awareness programme for communities on public health issues including water-borne diseases and could play a key role in developing awareness programme for water quality issues.

The Ministry of Health is a key partner in the implementation of Water Safety Plans in Vanuatu.

Public Works Department

The Public Works Department is currently operating and managing water supply systems at Luganville (Espirito Santo), Malekula, Vanua Lava (Banks), Tanna and Saratamata (Ambae). PWD is also responsible for water quality monitoring, updating the systems and maintenance. The Public Works Department is a key partner in the implementation of Water Safety Plans in Vanuatu. Luganville water supply, the demonstration project for Vanuatu is managed and operated by PWD.

Provincial Councils (e.g. SHEFA and SANMA)

The Provincial Government Councils are the responsible for all Provincial development issues including water supply. They have a mandate for representing their communities and essentially provide a vehicle for taking community issues up to the Government. The Provincial councils have health and water supply departments each having some responsibility towards water supply in a Province, usually ranging from water quality monitoring, education and awareness, development control, community development (training) and facilitation of rural water supply projects and schemes. Their contribution towards community education and awareness will be of great value in raising awareness

on drinking water quality issues as well as awareness on Water Safety Plan related issues. The SHEFA and SANMA Provincial Councils are key partners in the implementation of Water Safety Plans within their Provinces including Port Vila, Mele and Luganville.

UNELCO SUEZ

UNELCO SUEZ has signed a concession contract for the water supply for Port Vila in 1996 for a period of 40 years. Within that period UNELCO SUEZ operates, maintains, renews and expands the water supply network. UNELCO SUEZ is contractually committed to a 800 million vatu investment programme. UNELCO SUEZ supplies water to some 5000 households (30,000 people).

Municipality Councils

The Municipality councils are responsible for development control within urban centres in Vanuatu (e.g. Port Vila and Luganville). They also carry out some water quality monitoring e.g. to check for free available chlorine in reticulated water supply. The municipality councils are key partners in implementation of Water Safety Plans especially within urban areas including Luganville and Port Vila.

Live & Learn

Live & Learn Environmental Education is a regional NGO specializing in education and awareness as well as community development and training programmes. Their key area of involvement is with the formal and non-formal education systems. They are adept at producing IEC materials. They have developed a number of community toolkits for village based water quality monitoring, including the H2S test.

Live & Learn and other local NGOs (e.g. Wan Smolbag, FSP (Vanuatu), World Vision etc) are partner agencies in the implementation of Water Safety Plans in Vanuatu.

Forestry Department

The Forestry Department is responsible for control and monitoring of logging and other forestry activities within water catchment areas such as the Tagabe River catchment. They are also involved in education and awareness programmes for communities on sustainable forestry. They are actively involved in the management of the Tagabe River Catchment (a project of the Tagabe River Management Committee).

Environment Unit

The Environment Unit is the agency responsible for environmental issues and concerns including pollution, conservation, waste management, climate change and Environmental Impact Assessments.

They are also considered to be a key partner in the implementation of Water Safety Plans in Vanuatu.

Vanuatu Meteorological Service

The Meteorological Office is responsible for issuing weather forecast and monitoring of long-term weather patterns and Climate Change issues. They have strong technical capacity for monitoring and predicting effects of Climate Change on water resources in the Vanuatu.

NATIONAL WATER RESOURCE & SUPPLY STATUS

Status of Water Resources (Urban, rural & outer island)

To be completed by the Steering Committee

Existing Legislation, Plans & Policies

To be completed by the Steering Committee

Existing water quality standards & guidelines

To be completed by the Steering Committee

ACTIONS FOR PREPARATION OF WATER SAFETY PLANS

SYSTEM DESCRIPTION & ANALYSIS

1. Assemble a team of people who have good knowledge of the system

Assemble a team for water supply description and analysis. The team should include people with relevant technical and operational knowledge of the system;

Involve local/provincial water resource management committees.

2. Engage communities to access local knowledge

3. Allocate sufficient funds to carry out a full system assessment & analysis

4. Research previous studies and reports on the water supply system

Find out key information including:

- Hydrology
- Water Quality trends
- Climatic conditions and weather patterns

5. Develop checklists for describing a water supply system

The team should develop appropriate methodologies for describing the system including tools such as checklists and maps.

6. Conduct Field Trips and surveys do describe a water supply system

The team should conduct surveys in order to describe and analyze the system in the form of systematic diagrams, maps, layouts or reports.

RISK ASSESSMENT

7. Use local knowledge for risk assessment

Engage local communities (e.g. Mele village) and community based groups and organizations and NGOs.

8. **Draw from previous experience of the water supplier(s) (e.g. UNELCO, PWD, Mele village etc)**

9. **Engage different expertise i.e. water supply, water resource management, health, environment, meteorology, geology, hydrology, social scientists, 'Bigmen' (e.g. SOPAC, WHO, NZ MoH) and local communities (e.g. Mele village) etc.**

10. **Develop relevant tools for risk assessment of the water supply system**

The team should gather relevant resources to assist with identification of risks. These resources could include:

- Photos and maps of the water supply
- Risk assessment guidelines (e.g. NZ MoH and WHO guidelines)
- Videos on risk assessment (e.g. NZ MoH DVDs)
- Reports (of previous studies)
- Funding

RISK RANKING

11. **Engage different expertise i.e. water supply, water resource management, health, environment, meteorology, geology, hydrology, social scientists, 'Bigmen' (e.g. SOPAC, WHO, NZ MoH) and local communities (e.g. Mele village) etc.**

Different agencies would have different areas of expertise and they should be involved when ranking the risks.

12. **Assess the feasibility and practicality of addressing each risk**

13. **Strengthen stakeholder collaboration**

- Establish and strengthen the National Steering Committee by including all agencies that have a role (or responsibility) in the management of drinking water quality in Vanuatu.

14. **Conduct public consultations and workshops to consult relevant agencies on issues and concerns relating to drinking water quality and health.**

15. **Improve sharing of information among agencies**

- Establish a working group that would collate data and prepare annual reports on the following:

i. Drinking water quality of various supplies (urban, rural and outer-island) in Vanuatu
ii. Water-borne disease statistics

- The membership of this working group should include agencies that are directly responsible for water quality monitoring or health surveillance such as Department of Geology, Mines and Natural Resources, PWD, Ministry of Health and Environment Unit. The NGOs and Provincial Councils should also be represented in this working group.

- Inter & intra governmental relationships and networks should be strengthened to improve information sharing

- Establish a network between other PICs that have or are in the process of developing and implementing WSPs to share lessons learnt.

MONITORING & INSPECTION PROGRAMME

16. Develop new or strengthen existing water quality monitoring and health surveillance programmes

- Identify agencies responsible for drinking water quality monitoring

- Review current monitoring programmes to identify gaps and weaknesses

- Collate past water quality monitoring and health surveillance data (including customer complaints records and disease statistics)

- Conduct public consultations and organize workshops for key agencies to discuss a strategy to improve coordination between existing monitoring programmes.

17. Identify resources (e.g. finance, experts etc) that would be needed to strengthen existing monitoring programmes and establish means for securing those resources.

18. Capacity building (training & professional development) for key staff from relevant agencies in Drinking Water Quality Monitoring.

19. Identify and procure relevant tools for Drinking Water Quality Monitoring

IMPROVEMENT SCHEDULE

20. Complete Water Safety Plans to identify areas that need improvement.

21. Assess the feasibility and practicality of each 'improvement'.

22. Rank the improvements based on feasibility, practicality, sustainability, appropriateness and available resources (funding, capital works, infrastructure development, human resources) and time needed to complete them.

23. Seek Government Commitment for implementation of the Improvement Schedule.

Products & Outputs

1. National Policy promoting Water Safety Plans

2. Checklists developed for system description and analysis

3. Maps, schematics, layouts etc for water supply systems within Efate, Espirito Santo and other outer island water supplies

4. Checklists developed for risk assessment

5. Improved water quality monitoring programmes by Department of Geology, Mines and Natural Resources and Ministry of Health

6. Strategies developed for public consultation and community participation to access local knowledge

7. Improvement Schedule developed and endorsed by Government

8. Network established for sharing of information including water resource status reports, water quality monitoring data and health surveillance statistics

ACTIONS FOR IMPLEMENTATION OF WATER SAFETY PLANS

AWARENESS & COMMUNITY PARTICIPATION

For safe quality drinking water, communities need to understand the linkages between water quality and health and know the contributions they can make to ensure safe drinking water.

1. **Strengthen collaboration among local communities (and between local communities and relevant government agencies) to access local knowledge on water resource management**

2. **Establish a mechanism for awareness and education of outer island communities taking into consideration the relative remoteness of some of these communities**

3. **Develop community education and awareness programmes**

    - Strengthen collaboration between agencies to share resources and develop awareness programmes and materials;

    - Establish a working group for community awareness & education that would be responsible for developing IEC materials for awareness raising on drinking water quality and health issues;

    - The Awareness Working Group should engage in public consultations to identify issues and concerns of the public in relation to drinking water and health.

    - Translate relevant IEC materials into local languages (e.g. Bislama)

4. **Conduct workshops to empower communities to take more ownership and responsibility of their drinking water**

    - Promote the linkages between drinking water quality and health issues through community workshops;

    - Empower communities to maintain safe quality water by training them on simple water quality tests and sanitary surveys e.g. H2S test kits and WHO sanitary survey forms;

    - Empower communities (landowners) to engage in public awareness programmes

WATER RESOURCE MANAGEMENT

For safe quality drinking water we need to ensure adequate supply of good quality of source water for public water supplies.

5. **Enforce legislation (regulations) for effective management of water resources in Vanuatu.**

   - Enforce the Water Resource Management Act (2002)
   - Enforce other legislation and /or regulations (of other agencies) that regulate water supply management, water quality management, health surveillance etc;
   - Build the capacity (mainly human resources) of relevant agencies to enforce these legislations.

6. **Strengthen Catchment Management of major water supplies in Vanuatu**

   - Implement Catchment Management Plans developed by the Water Resource Management Committee;
   - Conduct a review of existing laws for Catchment Protection and Management;
   - Awareness programme for tourists and members of public;
   - Place signage warning tourists and members of the consequences of tampering with the catchment, intakes, or accidental or deliberate contamination of water sources;
   - Introduce community policing of catchments by landowner groups or Water Resource Management Committee.

7. **Establish formal agreements with land owners for access to their land to establish water supplies (intake, storage, distribution)**

   - Since most water supplies are on land owned by local communities it is essential to have some formal agreement with landowners for access to their land and water resources for the purpose of water supply development

8. **Develop land-use plans for catchment areas of major water supplies in Vanuatu**

9. **Encourage more constructive dialogue among stakeholders (via the Water Resource Management Committee)**

10. Strengthen monitoring of drinking water quality

- Strengthen surveillance and monitoring of drinking water supplies (including urban and rural supplies);
- Establish strategy for sharing of data among relevant agencies;
- Prepare annual reports on drinking water quality status and share among key stakeholders.

11. Explore alternative water sources

INSITUTIONAL ARRANGEMENTS

For safe quality drinking water we need effective cooperation among key stakeholders at all levels of operational policy, regulatory framework and information sharing.

12. Establish and strengthen the National Steering Committee (made up of representatives of different agencies and community groups)

- The board should include the following:
  - A representative from DGMNR, MoH, Environment Unit, Meteorology Service, Ministry of Finance,
  - Agricultural, Commercial and Tourism sectors
  - Provincial Government Reps (e.g. SHEFA and SANMA)
  - Community reps (e.g. the Tagabe River Management Committee),NGOs
  - Local Municipalities (Port Vila and Luganville)
- Clearly identify the missions, roles and responsibilities of each agency with respect to water supply management;
- Develop a structure for collaborative work
  - Build trust between each agency
  - Share good and bad examples and lessons learnt

13. Capacity Building for agencies in developing and implementing WSPs

- An ongoing Capacity Building and Training programme needs to be established to ensure local expertise is available to assist with WSP development & implementation.
- Conduct training workshops to train staff from other agencies on development and implementation of WSPs.;

- A strategy for maintaining expertise within agencies needs to be developed (e.g. staff passing on their knowledge to successors).

14. Improve sharing of information among agencies

- Establish a working group that would collate data and prepare annual reports on the following:

    i. Drinking water quality of various supplies (urban, rural and outer-island) in Vanuatu
    ii. Water-borne disease statistics

- Inter & intra governmental relationships and networks should be strengthened to improve information sharing;

- Establish a network between other PICs that have or are in the process of developing and implementing WSPs to share lessons learnt.

15. Enforce existing legislation or draft new legislation to address national water supply concerns

- Conduct a legislative review of various acts and regulations that regulate water resource, water supply or water quality management.

- Make amendments to existing legislation to address key issues in water resource, water supply and water quality management.

FINANCING

For safe quality drinking water we need appropriate financial arrangements and support to invest in needed improvements in water resources management, appropriate technology, institutional arrangements and community awareness and participation.

16. Secure high level Government Commitment for development and implementation of Water Safety Plans in Vanuatu

17. Increase self reliance by completing the Water Safety Plan to identify needed capital improvements and directing limited resources (from National Budget) to these improvement

18. Establish strategic planning for water supply development (using Water Safety Plans as a tool)

19. Identify funding sources

- Agencies need to identify sources (national budget and donor aid) for funding WSP implementation;

- Review current and projected budgets to identify funding for needed capital or institutional improvements for implementation of WSPs;

- Establish proper evaluation/review process for donor funded projects to avoid mis-management of funds

20. Allocate funding for needed improvements (capital works or institutional arrangements) or capacity building

- Complete Water Safety Plans for water supplies to use as justification for funding or donor support for needed improvements;

- Prepare an Improvement Schedule to identify (prioritize) those improvements that can be made with existing funding and those that will need additional funding from Government or donor support.

APPROPRIATE TECHNOLOGY

For safe quality drinking water we need to consider appropriate technology including reliability, practicality, energy needs, easy access to consumables, easy access to technical 'know how' and repairs/maintenance.

21. Identify appropriate technology, infrastructure and equipment (including consumables) for rural water supply keeping in mind the needs, capability and resources of local communities

- Ensure that the technology is feasible, appropriate and takes into consideration the unique geographical, geological, hydrological and socio-economic situations;

- The technology should take into consideration frequent natural disaster events e.g. volcanoes, earthquakes, droughts and cyclones.

22. Build the capacity of local communities for the operation and management of rural water supplies

ISLAND VULNERABILITY

For safe quality drinking water we need relevant information and resources (including climatic data) on effects of climate change, natural disasters etc to enable preparations for sustainability of water supplies and quick recovery after events such as natural disasters (flooding, drought, cyclones etc).

23. Improve preparedness for natural disaster events that could have significant impact on water resources and water supply

- Review and implement the National Disaster Management Plan;
- Increase local awareness of the Disaster Management Plan;
- Establish early warning systems for natural disasters such as earthquakes, cyclones, tsunamis and drought;
- Engage local communities (elders) to access local knowledge of predicting weather patterns and natural disasters;
- Promote emergency storage of water (through local media) before, during and after natural disasters such as flood, drought, cyclones and earthquakes;
- Ensure there are sufficient funds allocated for response to natural disasters.

24. Improve access to relevant regional and national climatic data

- Encourage sharing of information on climate change and weather patterns in Vanuatu;
- Strengthen the capacity for monitoring effects of Climate Change on water resources;
- Establish networks with regional meteorological centres for information sharing on climate change and regional weather patterns.

Products & Outputs

1. National Policy promoting Water Safety Plans
2. National Steering Committee established & mobilised
3. Drinking water quality monitoring working group established
4. Awareness programme(s) established

5. Education & Awareness materials introducing WSPs are developed and distributed

6. Strategy for information sharing developed

7. Capacity building and Training workshops completed

8. Drinking water quality surveillance and monitoring programme established by Ministry of Health

9. Source water and drinking water quality monitoring programme established by Department of Water Works

10. Annual reports on drinking water quality status of all supplies in Vanuatu

11. National WSP Expert Group established

12. Legislation review completed

13. National Plans and policies reviewed to include WSPs

14. Water Safety Plans completed for Port Vila Urban Supply, Mele Rural Supply and Luganville Urban Supply.

15. Improvement schedule completed for Vanuatu water supply

REVIEW AND EVALUATION

Indicators of success

1. Improved quality of public water supply in Vanuatu
2. Security of supply (sufficient water available at all times)
3. Inter-agency cooperation improved
4. Guidelines for water quality established
5. Improved community ownership (e.g. catchment protection and awareness)
6. Reduced cost of water for consumers
7. Healthy people (i.e. reduction in number of cases with water-borne diseases reported)
8. Increased tourism
9. Better catchment management
10. Increase in donor support for water supply improvement especially in Vanuatu.
11. Technical capacity in developing and implementing WSPs increased
12. Reduced maintenance and operation costs
13. Increased public awareness of water supply issues
14. Updated and appropriate legislation

Who benefits?

	Indicators of success (Benefits)	DGMWR	MET	PC	Municipal Councils	L&L	UNELCO	MoH	PWD	For.
1	Improved Water Quality	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
2	Healthy People	**2**	**1**	**1**	**1**	**2**	**1**	**1**	**1**	**2**
3	Reduced medical costs for people of Vanuatu	**2**	**2**	**2**	**2**	**2**	**3**	**1**	**3**	**3**
4	Preventative Approach to water supply management	**1**	**1**	**2**	**2**	**2**	**1**	**1**	**2**	**2**
5	Development of Economic Activities	**2**	**1**	**3**	**1**	**1**	**2**	**2**	**1**	**1**
6	Security of water supply (quantity)	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
7	Increased / strengthened partnerships	**1**	**1**	**1**	**1**	**1**	**3**	**1**	**1**	**3**
8	Increased Donor support (funding)	**1**	**2**	**2**	**1**	**1**	**2**	**1**	**1**	**2**
9	Contingency Planning	**1**	**1**	**1**	**2**	**1**	**1**	**1**	**1**	**3**
10	Increased sharing of information	**1**	**1**	**2**	**2**	**1**	**2**	**1**	**2**	**2**
11	Better care for the environment (especially the catchment areas)	**1**	**1**	**1**	**1**	**1**	**1**	**2**	**1**	**1**
12	Improved knowledge within local communities to develop and implement WSPs, operate and manage their water supplies efficiently and manage their catchment areas	**1**	**1**	**1**	**1**	**1**	**3**	**1**	**3**	**1**
13	Increased capacity within local communities to develop and implement WSPs, operate and manage their water supplies and manage their catchment areas	**1**	**1**	**1**	**2**	**1**	**3**	**1**	**1**	**2**
14	Improved sanitation (especially within rural areas of Vanuatu)	**1**	**3**	**3**	**1**	**2**	**2**	**1**	**2**	**3**
15	Increased Capability	**1**	**1**	**1**	**2**	**1**	**2**	**2**	**2**	**3**
16.	Self Reliance	**1**	**1**	**1**	**3**	**1**	**3**	**2**	**3**	**3**

Key: 1 – Primary benefit 2 – Secondary benefit 3 – Tertiary benefit

Verification

	To be completed by Steering Committee	

REPLICATION

To be completed by the Steering Committee.