



## **Issues Paper of 2013**

### **A Review of the Water Supply Act 9 of 1985**

*You are invited to make a submission or comment on this  
Issues Paper.*

**Submissions close on 26 August 2013, 4:30pm**

## About the Vanuatu Law Commission

The Vanuatu Law Commission was established on 30 July 1980 by the *Law Commission Act* [CAP115] and was finally constituted in 2009.

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## Making Submissions

Any public contribution to an inquiry is called a submission. The Vanuatu Law Commission seeks submissions from a broad cross-section of the community as well as those with a special interest in a particular inquiry. Comments and submissions from the public are welcome.

The closing date for submissions is **26 August 2013**. There are a range of ways that a submission can be made and you can respond to as many or as few questions and proposals as you wish. You can write a submission, send an email or fax, or ring the Commission and speak to one of our staff.

You must indicate in your submission whether you wish your submission to be confidential as in the absence of such an indication your submission will be treated as non-confidential.

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## Introduction and Background

Vanuatu comprises of over 80 islands, with sixty five of these island inhabited. The total population of the country in the last census was approximately 234,000. The majority (75%) of people live in rural areas and the main urban centers are Port Vila and Luganville on Santo Island.

With regards to the water resources and supply, both ground and surface water resources are utilized for domestic purpose. In urban areas the main water resource is groundwater whereas in rural areas, various sources such as wells, springs, rivers and rainwater are used. However, in most places outside of the main urban settlements, water supply systems are either quite poor, or do not exist. The quantity of water is inadequate in many cases, and water sources are subject to contamination. In the hot and dry season in particular it is common to have insufficient amounts of safe drinking water in the rural areas.<sup>1</sup>

The current act that deals with water supply now warrants a review. In the last 27 years , water supply delivery involved two different government departments [Public Works Department- that addresses urban water supply and Department of Geology, Mines and Water Resources- that addresses rural water supply]. This review will find out whether or not this arrangement is good or whether it needs to change. The current Act must reflect the current working conditions and relationships and the future conditions of water supply.

In 2012, the Director of the Department of Geology, Mines and Waters Resources (DGMWR) requested the VLC to review the laws regarding the methods in which water is supplied, the tariff imposed on water supply, illegal tapping of water and Water Quality with emphasis on the need for consistent monitoring, water safety planning and water use efficiency for all water supply systems. The review is to focus on both rural and urban areas. The Director referred to the Water Supply Act 9 of 1985 and the Water Resources Management Act 9 of 2002, with other laws that address the issue of water supply.

This issue paper will look at the Water Supply Act No. 9 of 2002 and identify the issues that concern the water supply situation within the country now. These issues will be highlighted and findings made will be used as recommendations to amend the legislation.

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<sup>1</sup> P.A. Kingston 'Surveillance of Drinking Water Quality in the Pacific Islands: Situation Analysis and Needs Assessment Country Reports' (2004) [www.vanuatu.usp.ac.fj](http://www.vanuatu.usp.ac.fj) (Accessed 11/02/2013)

## ISSUE ONE

### Water supply managed by two departments

Water supply falls under several authorities in Vanuatu. For the last 27 years, the water supply delivery has involved two different government departments, namely, the Public Works Department, who is responsible for the urban water supply, and the Department of Geology, Mines and Water Resources who is responsible for delivering rural water supplies.

In accordance with section 22 of the *Water Supply Act*, the government has contracted a French-owned private utility, UNELCO, to manage and operate the Port Vila water supply system. This had been done for the past 19 years.

The Act is geared toward metered water supply systems and gives power to the Director of Public Works Department to administer the Act. With the aid of UNELCO, Port Vila is able to have a metered water supply. The Public Works Department supplies water to the five provincial headquarters around Vanuatu of which the major one is Luganville. However, since the rural water supply is under the responsibility of the Director of the Department of Geology, Mines and Water Resources, the water system in the rural areas is un-metered. Most water supplies in the rural areas are obtained from surface water, rainwater and groundwater and are of some concern particularly in small islands during periods of drought and seasonal rainfall fluctuations.

This makes the water supply system unreliable for the rural areas, thus putting the people living in rural areas at a disadvantage. The involvement of two departments, looking after two different areas of water supply, does not help in solving this dilemma as there is often lack of co-ordination to develop projects to deal with this issue.

In Fiji, the Director of Water and Sewerage in the Public Works Department has the overall responsibility for the water supply. The Mineral Resources Department (Ministry for Lands & Mineral Resources) assists in the planning, assessment and development of ground water resource. Other Ministries involved in the water sector include the Ministries of Fijian Affairs and Regional Development, Ministry of Health and the Ministry of Primary Industries. This wide involvement sometimes leads to lack of co-ordination of development projects. Responsibility for water resources development and management is vested in a number of government ministries and statutory authorities, each with specific interest. There are procedures for areas of common interest but these are at the project implementation and not at policy level. The need of a comprehensive national policy or strategy for better management of water resources is often discussed.<sup>2</sup>

*Should these two departments work collaboratively to amend the existing Act to reflect the current working conditions and relationships now and into the future?*

*Or should the responsibility of managing the water supply system be given to just one department and any legislative provisions or powers given to this department with regards to water supply, be applied in both the rural and urban areas? If the water supply system was to be placed under the PWD, then as provided for in the Water Supply Act 9 of 1985, should all water supplies be metered in both rural and urban areas?*

*For Vanuatu, should a comprehensive national policy or strategy for better management of water resources be considered as well?*

<sup>2</sup> SPREP 'Proceedings of the Pacific Regional Consultation on Water in Small Island Countries-Country Briefing Papers' [www.sprep.org/att/IRC/eCOPIES/Countries/Fiji/23.pdf](http://www.sprep.org/att/IRC/eCOPIES/Countries/Fiji/23.pdf) (Accessed 12/02/2013)

In PNG Provincial Governments have been set up for the different provinces and under the *Provincial Government Administration Act 1997*, they are required to first establish the basic minimum needs for the development of the urban and rural area of their respective provinces relating to the maintenance of roads, bridges and infrastructure including urban roads, public facilities and the environment, health programs and hygiene, education facilities, safe housing and safe and accessible water.

In Australia, its Constitution states that natural policy, including that relating to water, is the responsibility of its different states. The institutional arrangements for service provision vary among States and Territories. For example, in parts of Queensland and Tasmania, the local government is responsible for the provision of water services. In New South Wales, Victoria and Southeast Queensland, there are separate municipal retail service providers and state bulk service providers that cover large parts of each state. A National Water Commission was also formed and this is an independent statutory authority that provides advice to the Council of Australian Governments and the Australian on national water issues. They are responsible for providing independent assurance of governments' progress on water reform.<sup>3</sup>

Since Vanuatu is divided into 6 provinces and funds and resources are limited, would it be more practical to leave the responsibility of water supply to the six provinces as in Australia and PNG? Provided that they come under the umbrella management of the Public Works Department, and who will also lend its services to the six provinces in terms of the efficient management of the water supply system?

In Australia, the National Water Resources Advisory Committee established under the *Water Resources Management Act 9 of 2002* may also be used to provide advice on national water issues.

PNG has taken a step further by initiating a "bottom up" approach to planning, based on specific needs for each community. This was done by the Eastern Highlands Provincial Government, who brought all the councilors together to attend a weeklong workshop, during which each one was given the opportunity to tell others about the specific problems faced by their people. They were then given the opportunity to identify priority projects for their respective communities. It was explained that public servants used to decide for the people in previous years, but this time it was decided that the people should be allowed to decide for themselves.

*Should the management of contamination and the pure quality of water supplies remain with the Ministry of Health?*

*Should this model also be followed by Vanuatu, in order to get a better understanding of the people's needs and wants with regards to water issues? Or is it best left to the department responsible for water issues to handle?*

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<sup>3</sup> Australian Government 'National Water Commission' <http://www.nwc.gov.au/organisation/role> (Accessed 13/02/2013)

## ISSUE TWO

### Updating of water tariff

The Water Supply Act provides for the procedures in getting connection to the water supply and the costs and liabilities associated with these procedures. The supply of water is regulated through the charging of water by meter readings. Meter readings can only be taken by a person authorized in writing by the Director of Public Works.

Since the water supply system is under the management of two departments, the water tariff imposed in the rural and urban areas differ. In Port Vila, UNELCO sets the water tariff while the water tariff imposed in the provincial headquarters is set by the Act. In accordance with the contract that it has with the government, UNELCO is required to send out its price adjustment for water once every half a year.

However, this is not the same for the other urban and rural areas. In Luganville, the water prices have not changed since 1991 even though operating and maintenance costs have risen significantly. This has subsequently led to under-investment in the water network, resulting in a decrease in the quality of water. Rural water supplies are often donor-funded and managed and operated by communities.

In November 2012, the Public Works Department submitted a request to the Utilities Regulatory Authority to conduct a review of water prices in Luganville. This resulted in a new proposed tariff, which was obtained after an extensive research and consultation that was conducted in Luganville. However, the Public Works Department has proposed some conditions on the implementation on the new tariff and one of these conditions is that no changes will be made to the tariff in 2013 and will only come into effect on 1<sup>st</sup> January 2014.

While this may be seen as a step forward for updating water tariffs, this may have implications on the other provincial headquarters. As previously stated, the Public Works Department is responsible for the water supply to the provincial headquarters and Luganville is its major area of supply. With this new updated tariff in Luganville, the same may also be done to the other provincial headquarters.

This may be problematic as any new water tariff may be considered as high for the people living in these provinces. Based on the research conducted in Luganville, the new tariff was calculated according to the number of people living there and the assumed growth rate in order to determine water consumption. Taking this into consideration, more and more people are moving from rural areas to urban areas and this alone justifies the need for a new tariff being imposed to reflect the current conditions in the urban areas. However, with more people leaving the rural areas, water consumption may be lower in the rural areas and the imposing of a higher new tariff for the other provincial headquarters will be unfair.

Should the laws be amended to ensure that any new tariff implemented should reflect the current conditions and circumstances of each province?

Or should standard water tariff rate for all provincial headquarters be set?

Should a standard tariff rate be used for all the provinces and all urban centers or should it vary widely in their structure and level between urban centers and provincial headquarters and or between user categories (residential, commercial, industrial or public buildings)?

## ISSUE THREE

### Incorporating a provision in the Act to re-inject water tariff/revenue

*Should the law be amended to incorporate a provision whereby a portion of the water tariff re-injected back to the responsible authority to assist with new water extension/development and the maintenance of the water system?*

*Or should this be left to the Utilities Regulatory Authority (URA)?*

*As a party to the UN General Assembly, which recognizes the human right to water and sanitation, should this section be removed or changed i.e. make it compulsory to ensure that at least each province has a proper water supply system in the provincial headquarters?*

*Should a provision be provided to make water use efficiency planning compulsory so as to ensure that there is a water use efficiency plan? Or is this a policy matter to be left to the Department of Public Works, geology Mines & Water Resources, UNELCO and the URA to deal with?*

With the establishment of the Utilities Regulatory Authority, one of its current work programs consists of setting aside a share of the tariff revenues for investment in new assets, in particular grid extensions and new connections. These funds are made available to the concessionaire upon submission of investment proposals to the government, verification of their compliance with the objectives of the URA and approval or technical feasibility and economic efficiency<sup>4</sup>.

Fiji faces major financial constraints in developing, improving and expanding their water supply systems. In 2010, the Water Authority of Fiji took over the responsibilities, functions and operations of the Water and Sewerage Department. The Water Authority of Fiji is responsible for the implementation of all major and minor projects funded by the Government of Fiji and donors such as the Asian Development Bank. The Project Management Units is the body responsible for this implementation and there are 4 different sections under this Unit, each with a specific role to play in the overall running of all Capital Project Works. These 4 sections are Capital Work Projects, ADB Funded Projects, Flood Recovery Projects and the Land Management Unit<sup>5</sup>.

In the current *Water Supply Act* of Vanuatu, there is no provision to provide for a portion of the water tariff/revenue collected to be re-injected back to the responsible authority to assist with new water extensions/development and the maintenance of the water system. There is no responsibility on water authorities or UNELCO for maintaining and improving consistent and good quality water supplies, although section 17 protects the Government from liability. There is lack of the necessary funding that is much needed for operation and maintenance of the water network; and above all require that at least part of the revenue collected be re-directed for the water system for future investment. Furthermore, one of the constraints and challenges that this lack of funding poses is the provision of adequate and efficient infrastructure for the supply of water.

The lack of financial resources for the development and

<sup>4</sup> Vanuatu Utilities Regulatory Authority (URA) 'Proposal for PRIF Support' March 2010 [www.theprif.org](http://www.theprif.org) (Accessed 10/02/2013)

<sup>5</sup> Water Authority of Fiji 'Project Management' <http://www.waterauthority.com.fj/en/history/> (Accessed 15/02/2013)



maintenance of the water supply system creates a lot of constraints. One of these constraints is that of the water use efficiency planning for all the water system. Water Use Efficiency simply put is using water without waste.<sup>6</sup>Lack of funding has led to all departments' concerned being under resourced and as a result, there is no water use efficiency planning for all the water system. Furthermore, under the current Act, where there is a failure to supply water, the Government will not be held liable for this failure.

The delivery of water supplies and sanitation services in many Pacific countries currently falls well short of Millennium Development Goal targets.

Samoa and Nauru have established and implemented policies on Integrated Water Resources Management (IWRM). The IWRM basically manages both water and land resources through improved sectoral collaboration and partnership between the government functions and civil society.

There is no legal provision for water use efficiency planning in all water supply system.

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<sup>6</sup> SOPAC 'Water, Sanitation and Hygiene: Pacific Islands Applied Geoscience Commission'  
<http://www.pacificwater.org/pages.cfm/resource-center/water-tools/iwrm-toolboxes-1/water-use-efficiency-planning.html> (Accessed 18/02/2013)

## ISSUE FOUR

### Illegal Tapping

Illegal tapping or water theft has become an issue and is now a problem for Luganville water supply as well as for a few rural water supply systems. This has also led to high levels of water losses.

Currently, there is no legislative provision that deals with this issue and thus, no penalty.

In Australia, the 6 different states have heavy fines for those who are found to be illegally tapping into the water system. In New South Wales, the *Water Management Act 2000* was amended in 2008 to strengthen compliance and enforcement powers in response to water theft. This Act makes it an offence for an individual to take water without a license and the penalty is clearly set out. Individuals could be fined up to \$1.1 million and jailed for two years while corporations that offend may face fines of up to \$2.2 million and \$264,000 for each day the offence continues.

*Should such a provision come under the Water Supply Act or the Water Resources Management Act?*

*What kind of penalties should be imposed and just how heavy should these fines be?*

*Should the same penalty apply to both individuals and companies or should they be separated?*

*How should these penalties be enforced?*

*Should the issue of all Government licences and permits, especially for waste management and mining, only be approved when all outstanding fines and penalties have been paid by a business or individual?*

## ISSUE FIVE

### Water Quality

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, Pacific Island countries outlined actions that were needed to achieve sustainable water management through collaborative efforts by water sector authorities and inter-sectoral partners<sup>7</sup>.

The WHO workshop on Drinking Water Quality Standards and Monitoring in Pacific Island Countries 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 Regional Action Plan<sup>8</sup>.

Protection of quality water supplies is provided under the Public Health Act with prison terms of up to 5 years and fines of up to 1 million VT may be imposed for polluting water or interfering with water tanks or supply equipment.

Water and sanitation, particularly for rural areas, have been absent from high level planning in Vanuatu for some time. Sanitation especially has particularly been neglected. Government agencies responsible for water supply planning and implementation face resource constraints in terms of both skilled staff and budget. The sector depends on the timely adoption of the National Water Resource Strategy to give legal status to the country's peak water body, encourage cross-sectoral co-ordination and spur the formation of the Department of Water. Currently the sector is highly fragmented<sup>9</sup>.

Data on coverage in Vanuatu is unreliable. Below is a table showing data that was compiled by WHO/UNICEF Joint Monitoring Program (JMP) for 2008 with regards to access to improved water and improved sanitation. The Joint Monitoring Program's national coverage figures generally correlate with findings from the 2009 National Population and Housing Census but the government data differs slightly, with much lower rural estimates<sup>10</sup>.

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<sup>7</sup> SOPAC 'Water Safety Plan- Water Supply Description Assessment: Vanuatu' (2006)

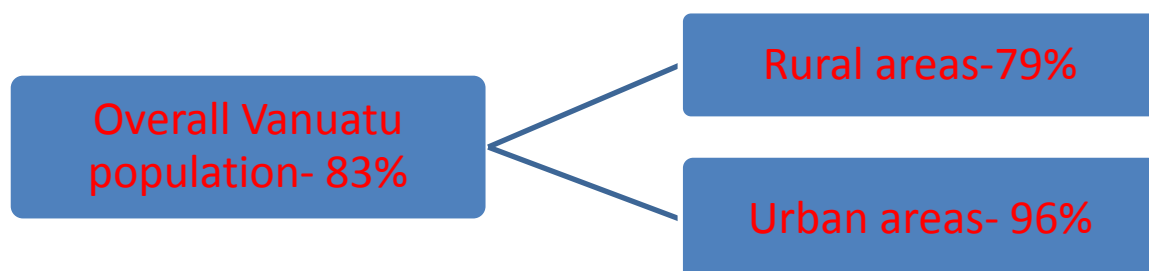
<http://www.pacificwater.org/userfiles/file/Vanuatu%20-Water%20Supply%20System%20Assessment-new.pdf>  
(Accessed 13/02/2013)

<sup>8</sup> Above n8

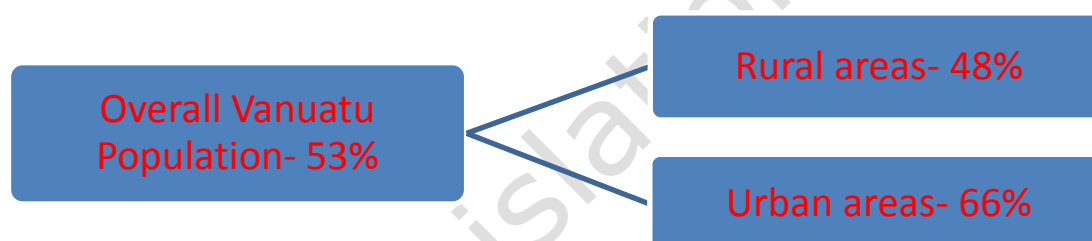
<sup>9</sup> ISF-UTS (2011) 'Vanuatu Water, Sanitation and Hygiene Sector Brief' prepared for AusAID by the Institute for Sustainable Futures, University of Technology Sydney, October 2011 [www.uts.edu.au](http://www.uts.edu.au) (Accessed 15/02/2013)

<sup>10</sup> Above n10

## ACCESS TO IMPROVED WATER



## ACCESS TO IMPROVED SANITATION



In Vanuatu both ground and surface water resources are utilized for domestic purpose. Groundwater has traditionally been exploited by the construction of hand dug wells in low lying or coastal areas. These open structures are prone to contamination and often contain water that is unsuitable for drinking.

Animal and human excreta are the main source of pollution of water supplies in Vanuatu and much of the surface water is exposed to animal and human wastes and other contaminants. This is due to the lack of source protection, and from waste water runoff during floods or heavy rainfall. Domestic wastewater is collected in septic tanks and there is no control mechanism on the tanks to check whether they are properly built and operated. In rural areas, water sources are open to bacteriological contamination originating from human or animal source. Due to the volcanic nature of the islands, naturally occurring chemical substances may also be a source of chemical contamination.<sup>11</sup>

<sup>11</sup> Above n8

*Should there be a provision inserted to provide for compulsory water testing? If so, how often should this testing occur?*

*Who is to do the testing, e.g. specialized personnel such as environmental health officers and other authorized officers appointed under the Public Health Act?*

*Furthermore, should the laws also be amended to provide for acceptable drinking water standards, as in PNG?*

*Should all these be addressed in the amended legislation? Should these powers also be included in the Public Health Act so that there is no duplication or clash between all of these laws?*

In addition, town planning has been deficient and water pollution is serious due to the overall lack of a domestic sewerage system and poor management of many individual septic tank systems.

Water quality in both Port Vila and Luganville is generally very good with only calcium hardness to note. The only treatment is chlorination. In rural areas, most water supplies are obtained from surface water, rainwater and groundwater and are of some concern particularly in small islands during periods of draught and seasonal rainfall fluctuations. There were six existing laboratories in Port Vila and Luganville which were: UNELCO, Ministry of Health, Vila Central Hospital, Department of Geology and Mines, Department of Public Works in Port Vila and the Northern District Hospital in Luganville. However these labs, with the exception of UNELCO, have not been fully operational and utilized due to many factors. These labs had problems with the expired consumables, low volume of water testing and insufficient operator skills<sup>12</sup>.

The Department of Geology, Mines and Water Resources Laboratory only tests and monitors rural drinking water when there is a review of the health statistics data. There is a still lack of the consistent monitoring of water supply.

There is no legislative provision that provides for the compulsory testing and monitoring of the quality of the water supply. Under the Water Resources Management Act, the Director has the power to take water samples for testing. It is virtually left up to the body responsible for the water supply, such as UNELCO in Port Vila, to decide when and how to test the water quality.

In PNG, the Environment (Water Quality Criteria) Regulation 2002 sets WHO standard criteria for pollutants released into freshwater and sea. The Public Health (Drinking Water) Regulation provides an indication of acceptable drinking water standards, whether from a supplier or

from natural resources.

In one report conducted by SOPAC on the Water Supply Description Assessment in Vanuatu, it was recommended that the Ministry of Health should be appointed as the National Surveillance Agency giving them the necessary administrative power to perform surveillance activities. These surveillance activities include sanitary inspections and water sampling in urban and rural areas through the Provincial Health Offices. It was further recommended that the environmental Health Unit (EHU) should be responsible for surveillance activities and the overall supervision of the water quality aspects, and should develop a monitoring scheme for a short term including the chemical parameters to be monitored, sampling frequencies and inspection regimes<sup>13</sup>.

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<sup>12</sup> Above n8.

<sup>13</sup> Above n8.

## ISSUE SIX

### Water Safety Planning

*Should the URA provisions be taken as providing for this gap or are the provisions in the URA too broad and general?*

*Should the issue of water safety planning in all water supply systems, also be provided for under the Water Supply Act?*

*Or is this a policy matter to be left to the Departments of Public Works, Geology Mines & Water resources, UNELCO and the URA to deal with?*

In 2005, the Water Safety Plans was introduced as the WHO's new risk assessment/risk-management approach to ensuring safe drinking water. A 'Framework for Action on Drinking Water Quality and Health in Pacific Island Countries' was completed and endorsed in the meeting of Pacific Islands Health Ministers in Samoa, two months later. This has led to three Pacific-wide water quality programs being proposed and funded, with Vanuatu being selected as one of the four Pacific Island Countries to benefit from this. Overall, this is a new approach and has only been implemented in at least 4 Pacific Island Countries.

Draft Water Safety Plans were drawn up for Port Vila and the Mele-Rural Supply and there was also a Draft National Implementation Plan. In 2007, Luganville and Mele conducted its first ever Water Safety Plan review and this resulted in a Water Safety Plan being finalized and the compilation of an improvement schedule. However, these are the only two areas in Vanuatu that

has had any Water Safety Plan drawn up.

The Utilities Regulatory Authority Act allows the Authority to issue safety standards in relation to the safety of a regulated service in any place. It also provides for a safety inspector to enter any premises and take samples of any substance for the purpose of testing. The Authority may also issue reliability standards in relation to the reliability of a regulated service in any place.

There is no provision in the Water Supply Act to provide for any safety or reliability standards with regards to water.

## Opinions and Submissions

Any opinions expressed in this Paper do not represent the policy position of the Government of Vanuatu, the Department of Geology, Mines and Water Resources or the Vanuatu Law Commission.

You are invited to make a submission on any matter raised in the Paper or anything you think is relevant to the statistics and census laws in Vanuatu. Information on where and how to make submissions is found on page 2 of this Paper.