

Introduction

- The RMI is one of four countries in the world that are made up of coral atolls.
- With 29 atolls and 5 individual islands, it is situated in the Central Pacific with approx. 1215 small islands.
- It has a EEZ of a little over 2 million km(sq) and total land area is only about 183 km (sq)
- No mountains, no rivers; so both land and water are very important to our culture and to our people.

Water Resources

- Our primary source of freshwater is rain.
- Can be collected by:
 - Water tanks or by water lens
- Unfortunately rainwater collections systems, are not well developed.
- Existing legislation which requires new buildings to be provided with rainwater collection and storage facilities is not enforced.
- Therefore, seawater provides a limitless resource of either direct substitution of freshwater for certain uses, or as a base of the production of freshwater desalination.

Water Supply

- On Majuro Atoll, water which is distributed on a daily basis is about 1 million gallons which is extracted both from groundwater lens and from the airports.
- Some 71% of the households rely entirely on the community supply
- Some 27% rely on rainwater catchments supplemented by community water
- 2% rely on ground water
- Ebeye Island on Kwajalein Atoll, it utilizes freshwater from desalination plant which produces about 118,000 gals per day.
- 93% of the households rely entirely on the community system.
- 7% rely on rainwater catchments and storage supplemented with community water
- On the outer islands: rainwater is preferred by 76% of households supplemented when necessary by ground water
- 24% rely entirely on groundwater.

What has MICS done?

- So far, MICS has created a video pertaining to the World Water Day, as part of the awareness raising under our Millenium Development Goals.
- Household surveys done for Majuro and Ebeye
- We actually brought in all our coordinators from 14 different atolls for a marine certificate program which included rapid assessments and water quality certification program to have our coordinators learn how to test for water quality.
- Each of MICS's coordinators have specifically given camera's and log sheets to go back home and test for water quality at the same time to count how many of homes have water catchments and how many rely on ground water itself.

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- Through this network, there is consistent contact through MICS to build up on data being collected and then sharing it with our national agencies, e.g. EPA, EPPSO, OEPPC, and other NGO's
- Our Saturday radio spots have also given us an opportunity to work with outer island listeners. At times we have questions coming in from the outer islands, for example; who gets the water tanks?, How can one apply for one?, why do they get tanks and what not?...

How have we done it?

- Reimaanlok Conservation Plan
 - Local Governments come to us
 - Either by letter or personally
 - Needs assessments
 - What will they want to protect (marine/terrestrial)
 - Community based consultations
 - 8 steps in this process
 - Management Plan in process
 - Rapid assessments
 - Agreements (MOU's and Ordinances)
 - HF radio installment (network)
 - Climate Lens
 - University of Rhode Island (intrusion of saltwater lens and introduction to providing rainwater collection systems on all government buildings)

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- Community feedback
 - Battery collections
 - Monitoring sites
 - MPA's
 - Ordinances
 - Fines
 - LRC's
 - Trainings/technical assistance
 - Feed backs through climatization

Issues and Challenges

- Naturally – occurring freshwater resources of the RMI are limited
- Supplies to individual consumers could be considerably enhanced if more attention was given to rainwater harvesting and storage
- The need to collect and store rainwater from all public buildings and sectors
- Examination of the current ability to respond to water related emergencies or the ability to distribute water under emergency conditions
- The gaps concerning equipment, water making, water distribution, needs for outer islands, urban areas, and information and awareness raising.

Recommendations

- **There is a critical need for more household water catchments based on the increasing levels of water borne illness reported on Majuro and Ebeye.**
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- After this project there will be 1,463 homes on Majuro and Kwajalein (does not include Mejatto and Ebadon islands on Kwajalein) without water catchments. Based on current project costs this will require at least \$1,500,000 for the remaining material and equipment and additional funds to support logistics and installation.
- **Conduct review of existing gaps in provision of current Public/Preventative Health model and ability of government to provide water in extended dry periods or other emergency situations.**
- A review needs to be undertaken examining the current ability to respond to water related emergencies or ability to distribute water under emergency conditions. What are the gaps concerning equipment, water making, water distribution, needs for outer islands, urban areas, information and awareness raising
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The need to pay attention to environmental health and its effects on the community through the use of better surveillance methods, particularly with use of GIS systems.

The newly updated house listings and GIS maps should be utilized to better monitor public and environmental health.

4. Improve and Increase level of public awareness and basic public health education concerning water and other preventative health issues.

This goes directly to the public health model that is being used in the urban areas. While there is good information in the newspaper and on the radio, we cannot be naïve enough to think that this is satisfactory given the extent of the information problem. The 2007 Demographic and Health Survey pointed out that nearly 40% of households do not come into regular contact with either the newspaper or news from the radio.

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● 5. Expansion of Water Quality Testing Programs and Personnel

There are some provisions for this under the current EU/SOPAC water project as there is a definite need to expand the number of people who are trained as water quality officers, particularly in Majuro and Ebeye, where the large majority of the RMI lives. Expansion of this training to include Ministry of Health Public Health Nurses, staff from NGOs, local governments and community representatives will go a long way toward halting the increase in water borne illness and empowering communities and households to more vigilant about water conservation and water quality.

6. Creation of a National Water Office, Develop New National Water Policies and Operational Plans

Overall, water resource management in the RMI is more non-integrated than it is integrated. While there is some cooperation among water related agencies, overall collective management remains weak. All organizations with direct and indirect responsibilities for water and waste water management and the network that connects them need development. The absence of a formal National Water Office (or equivalent entity) and a current water strategy is resulting in a relatively unclear future concerning water.



Komol Tata!