

IWRM in Nauru : an achievement story

By Haseldon Buraman



Tackling sanitation issues through community engagement and appropriate technology

Prior to the 1970's, Nauru toilets were pit-latrines, then a government housing scheme introduced fibre-glass septic tanks with septic overflow into the ground. The tanks need annual servicing from a sludge truck, which households had to pay for. Over time people were not regularly de-sludging the tanks and untreated sludge was being pumped out onto the reef and the de-sludging truck went out of service. In the 1990's issues of faulty toilets led to un-lined cesspits being dug for septic overflow.

To tackle this issue the IWRM project trialed two community-based toilet systems, improved septic systems and composting toilets. The greatest challenge was how to overcome negative local perceptions of composting toilets. Without interest in adoption from the community they were not a possible solution for Nauru and so began a targeted communications program to introduce the new technology.

After initial consultations with the communities, it became clear that local people had very limited knowledge about composting toilets. I realised that it was going to be very difficult to gain support for them and so began to approach the problem differently. I went back to reviewing the systems and considered what might help the community to better accept the concept. I identified a design used by the IWRM Project in Tuvalu where they had encountered similar challenges with community acceptance.

This revealed that household designs were more acceptable to people than a community one and similar to communities in Tuvalu, Nauruans did not want shared community facilities. They want individual household toilet systems. This resulted in a change to the original project design and one family and one school in Anetan and Ewa were identified to trial the composting toilets.

This was the first trial of composting toilets in Nauru and so we set out to test them. Firstly we placed a burning coconut husk in the chamber of the toilet to see if the ventilation pipe would draw the smoke up and out of the structure. We saw the smoke rising from the pipe and the inside of the toilet free from any smoke. Secondly I placed a container with fish in the chamber and came back the following day to find that there was barely a smell in the toilet cubicle, and this soon dissipated as soon as the lid was opened. I was impressed and convinced that the system works.

As the positive impacts of reduced water use and the success of community uptake began to be reported, other members of the Anetan and Ewa communities have become interested in these systems and are requesting one for their households. In addition, other donors, projects and government have started to take a keen interest in composting toilets as a viable option for increasing water use efficiency, reducing environmental stress and improving sanitation



Teachers at Ewa School inspecting the compost toilet and learning how to maintain it

“...consultations built community confidence and understanding and instilled community ownership...”

The initial project planning phase is critical for ensuring sustainability. We recommend taking the time to explain the system and let people become familiar with the new concept. On-going consultation during the design and construction of the systems allowed for modifications. These consultations further built community confidence and understanding on how the systems functioned, how to maintain them and instilled community ownership of the final designs.

I have learned that there are many key aspects to making the introduction of new and controversial technology a success. First is finding interested people to host the demonstration and building them in neighbouring districts so as to create a 'hub' for awareness raising. Several things we found were essential to success are regular, on-going consultation with the families to ensure the end product would be something they would use and that after installation there is on-going monitoring of the toilets to ensure they are being used correctly.

In the future we would like to see additions to the design such as small water storage tanks for hand-washing, solar panels that provide for lighting and lower cost options for fittings and construction.

Being involved with the IWRM project has helped me realise my own interest and passion in reducing contaminants on Nauru's scarce water lens. It also makes me feel happy to provide an alternative to families who have problems with water supply and restricted land space for septic systems.