



GEF PACIFIC IWRM PROJECT RESULTS NOTE

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RSC 4 2012

Integrated Water and Land Management for the Sustainable Use of the Laura Water Lens, Majuro Atoll



Top 3 Project Results

1. Establishment and Operation of the National IWRM Task Force as RMI's APEX Body for Coordination and Planning of Water and Sanitation Investments and Actions
2. Strengthened Community Engagement with National Government on Water and Sanitation Issues via Establishment and Operation of the Laura Lens Committee
3. Reduced stress on the Laura Water Lens by development and operation of septic remediation programme, pilot ECOSAN, and conversion of piggeries from wash down waste disposal systems to dry litter systems

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1. PROJECT OBJECTIVE

The objective of the “*Integrated Water and Land Management for the Sustainable Use of the Laura Water Lens*” Project (Laura Lens Project) is to strengthen national and local coordination for water resource management with a focus on reducing stress on the Laura Water Lens and planning the longer-term sustainable use of the Laura Water Lens.

2. RESULTS: PROCESS

A start-up committee for the IWRM Demonstration Project was first established in 2009 with members limited to traditional leaders, major landowners, and Council officials from the Local Government. Following establishment of the Project Management Unit In 2010, effort was made to revitalise and expand the membership of this group. Initially, traditional leaders and Laura residents were invited to consultations to re-introduce project goals, objectives, and to ensure all key traditional leaders were adequately represented in these discussions. Establishment of this locally based committee has been effective in: (a) building relationships of government with traditional landowners and leaders and (b) has also been catalytic in terms of influencing decision makers at the national level to provide support for the revitalisation of the “*National IWRM Task Force*” to lead national IWRM policy and planning. The National IWRM Task Force then proceeded to organize a national consultative process, including a large National Water and Sanitation Summit convened in March 2011 involving ~300 participants, to agree targets and priorities for the development of national policy and an IWRM Plan. This has facilitated the development of a National Water and Sanitation Policy and draft IWRM Plan for endorsement 2012/2012.

2(a) INDICATOR#1: BEST IWRM AND WUE APPROACHES DEFINED

Prior to project inception a consultant had been engaged to identify IWRM and WUE needs for the Marshall Islands. Although these had not been considered by communities or relevant agencies of government. The target was to have the approach defined and endorsed by national APEX body. Via the operation of a national consultation process, involving communities and women’s groups, priorities for and steps towards institutionalizing IWRM approaches in the RMI have been developed and endorsed by the National IWRM Task Force.



Image 1 Influential female members of the community, including the First Lady, Government Officials, and WUTMI members attend the 2011 Water Summit to lend their support to IWRM initiatives in RMI

2(b) INDICATOR#2: INCREASE IN COMMUNITY ENGAGEMENT WITH NATIONAL GOVERNMENT ON WATER ISSUES

At the time of project inception, the relationship with the Laura community and national government was tenuous due to a history of dispute over water resource access and allocation. Prior to project commencement, only 2 community group representatives occasionally took part in government workshops. Regular engagement of traditional leaders, landowners, and Laura residents with government through the operation of the community-based Laura Lens Committee has assisted with developing a common understanding and trust between the community, with on average 12 community leaders meeting on a quarterly basis with government.



Figure 2 Community representatives participating in a National Water Summit in 2011

2(c) INDICATOR#3: MULTI-SECTORAL APEX BODY IN PLACE

At the time of project inception, there was no APEX body for water in the RMI. The target of the project was to have such a body established and operational by July 2010. RMI's National IWRM Task Force was established by Executive Order and includes membership off all relevant community and traditional leaders, national government departments, local governments, private sector and NGOs. The Task Force is actively leading coordination, policy development, and planning.



Figure 3 National IWRM Task Force making a presentation to RMI Parliament on IWRM Policy

3. RESULTS: STRESS REDUCTION

The Laura Lens Project aims to reduce stress on the Laura Water Lens via targeted actions addressing pollution from septic systems, piggeries, and domestic solid waste. These will be supported via introduction of a zoning scheme based on an assessment of Laura water lens vulnerability to land and water uses. Key achievements to date include conduct of a survey of solid and septic waste management practices and needs for all Laura households, and development of septic monitoring and pump-out programme; community led design and conduct of household water use and sanitation audit; construction of 3 pilot ECOSAN systems at prominent locations in Laura community; preliminary works to remediate a large broken pig waste septic at a commercial piggery and conversion of its operation to a dry litter system; and conversion of 15 household pig pens to dry litter system from typical water intensive wash down pens.

3(a) INDICATOR#1: REDUCTION IN SEWAGE POLLUTION IN LAURA COMMUNITY

At the time of project inception, there was no system in place for reducing sewage pollution in Laura. Many household septic systems were overloaded and broken. The target of the project was to have 35 percent reduction in sewage pollution of the lens from households. The survey of septic waste identified 117 broken and overloaded septs requiring immediate pump-out. To date around 4% of these septs have been remediated.



Figure 4 Example of an overloaded septic immediately above the Laura Water Lens

3(b) INDICATOR#2: REDUCTION IN POLLUTION SOURCES DISCHARGING INTO LAURA GROUNDWATER

At the time of project inception, there was no action underway for reducing pollution discharges into Laura groundwater. The target of the project is to achieve 30% reduction in sources discharging into Laura groundwater. To date the number of households and pollutant sources have been identified and characterized. Pollution from pig waste has been identified as a major source. Preliminary work has been done to remediate a large broken pig waste septic at a commercial piggery and conversion of its operation to a dry litter system, and conversion of 15 household pig pens to dry litter system from typical water intensive wash down pens. An ECOSAN pilot activity is also underway in the Laura community, with 3 pilot systems constructed at prominent locations in Laura community. The national IWRM Plan for RMI is being developed and contains targeted costed actions for pig waste management and ECOSAN replication and scaling-up.



Figure 5(a) Commercial piggery situation above the Laura Water Lens with effluent discharge into cesspit immediately in the lens. High levels of *e coli* have been recorded at wells in the vicinity.

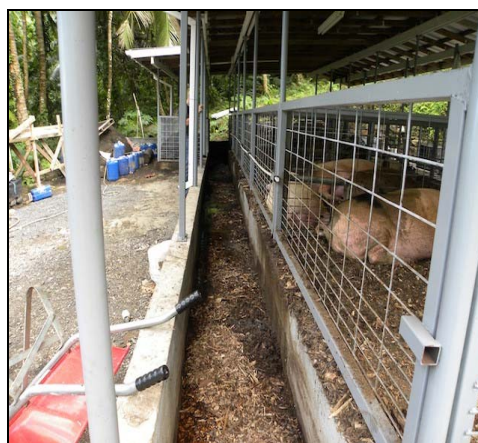
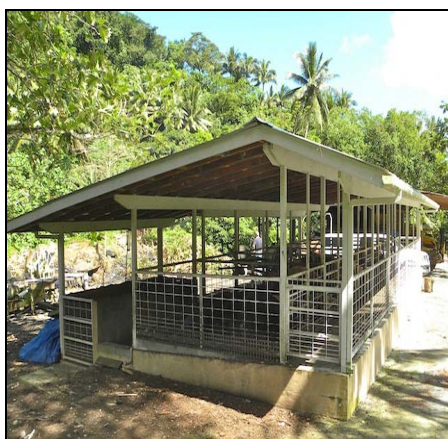


Figure 5(b) Waterless dry litter pig waste management being promoted in the Laura community at commercial pig farms and for household pig pens



Figure 5(c) Current toilets being utilized at Laura providing poor sanitation and septic systems



Figure 5(d) Recently constructed eco-san toilets as part stress reduction methods and ideal replacement for current toilets being used on Laura

4. RESULTS: WATER RESOURCE AND ENVIRONMENTAL STATUS

IWRM in the Marshall Islands aims to contribute to improved water resource status by increasing population with access to safe drinking water supply and with access to sanitation. Drinking water safety has been addressed via the development of a drinking water safety planning and IWRM planning underway for RMI incorporates the replication of this work on Ebeye.

4(a) INDICATOR#1: POPULATION WITH ACCESS TO SAFE WATER

At the time of project implementation, there had been no water safety planning conducted for Majuro Atoll. The target of the project is to have the Majuro Water Safety Plan implemented. To date water safety issues have been investigated and discussed with key water providers and businesses. A Water Safety Plan has been drafted and reviewed by the IWRM Task Force and is awaiting formal adoption.