

# NPRS-PRF

Helping Accelerate Poverty Reduction in Asia and the Pacific

## PROMOTING OWNERSHIP OF AND DEMAND FOR EFFECTIVE WASTE MANAGEMENT

The Republic of the Marshall Islands (RMI) is made up of more than 2,000 small, low-lying coral islands and islets clustered in 29 atolls and 5 table reefs in the West Central Pacific Ocean. Majuro Atoll is the capital and consists of more than 40 small islands that encircle a large lagoon. Its isolated location and pristine waters make the country very attractive for tourism.

The islands are also characterized by high birth rates and inward migration from the outer islands, which have resulted in extremely high rates of population growth, such that the population densities of Majuro and Ebeje are now among the highest in the world (RMI 1993). This rapid population growth has resulted in overcrowding in Majuro (population densities of more than 2,500 per square kilometer), which is manifested in poorly constructed houses packed together without adequate sanitation and solid waste disposal.<sup>1</sup>

As a result, the RMI faces serious problems concerning waste disposal and pollution. Increased urbanization and growing populations have put pressure on the collection and disposal of both solid and liquid wastes. The lack of effective demand for solid waste disposal and management on the increasingly urbanized atolls of the RMI is poisoning scarce groundwater resources, creating health hazards, and eroding subsistence and formal economies (including fisheries and tourism).

The current practice on Majuro is that half of its waste<sup>2</sup> is dumped into 15 and 24.5 cubic yard garbage bins that the Majuro Atoll government provided at several locations. The urban solid waste in Majuro is currently disposed of in a landfill on the shoreline, with garbage being dumped partly on the land and partly on the former channel and reef flat adjacent to the shore. However, until recently, waves have broken the retaining wall of the disposal site.

An additional problem was that the Majuro landfill was a fly-and-rodent-infested mess that was rarely covered. The government's Environmental Protection Authority repeatedly issued citations to the Ministry of Public Works over its poor handling of waste, but to no avail.<sup>3</sup>

No sustainable solution had previously been established for urban waste management in the RMI, which had been top-down and

supply-driven, with agencies providing overall support facilities. The management of urban solid waste was inefficient and coordination needed much strengthening. Little attention was paid to public awareness, ownership of, and demand for continued and sustainable waste management. While technical solutions could be found, no permanent, sustained solution to waste disposal and management could be realized if there was no ownership for its disposal and management.<sup>4</sup>

The RMI and Majuro Atoll governments budget \$1.2 million for solid waste management annually. With additional support from international funding agencies, this brings the total budget up to about \$1.5 million. This does not include capital equipment. Private businesses, individual government offices, and households spend about \$300,000 per year hauling their own waste to the dump.<sup>5</sup>

While no waste recycling program was previously organized,<sup>6</sup> much of the waste disposed in Majuro has a high potential for recycling. From recent investigations undertaken by the government (RMI 2003), two different types of recycling programs appear to be feasible—commodity recycling and organic waste recycling. Commodity recycling includes food and beverage containers, while organics recycling includes food waste and wood waste. Aluminum cans, plastic bottles, and glass are estimated to account for about 15% of the waste stream (RMI 2003).

### TA 4653 RMI - Supporting Community-Designed and Community-Owned Waste Management System

Solid waste has been a perennial problem, and the RMI government has recognized the need to strengthen the coordination of solid waste management. In December 2004, the Cabinet approved the formation of a solid waste task force,

replacing the informal solid waste committee. The task force was cochaired by the mayor of Majuro Atoll government and the chief secretary.<sup>7</sup>

To support government initiatives in designing a sustainable solution to urban waste management and disposal in Majuro, the Asian Development Bank (ADB) initiated technical assistance (TA) 4653 RMI: Increasing Ownership of and Effective Demand for Improved Urban Waste Management<sup>8</sup>. It was based on conducting extensive informed participatory planning processes that would lead to a community-designed and community-owned waste management system.

As part of the TA, the situation of urban waste management in Majuro was reviewed and assessed. Papers were drafted under the TA to facilitate the establishment of a Majuro Atoll Waste Corporation (MAWC), including setting out its proposed structure and funding.

Stakeholder consultations were conducted, and public awareness activities were carried out to discuss 11 types of solid waste issues:

- governance,
- collection service,
- user pays,
- enforcement,
- waste reduction and recycling,
- public awareness and values,
- disposal methods,
- disposal sites,
- industrial waste,
- hazardous waste, and
- scrap metal clean up.

Options on these issues were drafted, and costs were estimated for the main options identified. Among the groups encouraged to participate were the urban poor, women, and youth who would benefit by being given a voice to present their concerns and to design solutions to waste management problems.

Solutions to waste management problems and stakeholder views were presented to the public in a 12-page document entitled, *"What Do You Think? Draft for Public Review and Comment,"* which compared the current waste management with various options in light of costs and benefits.

The TA also worked with various institutions in the RMI (Ministry of Health, Environmental Protection Authority, Marshall Islands Conservation Society, and the *Marshall Islands Journal*) to deepen their respective awareness of the problem of solid waste.

Some recommendations made in the TA included<sup>9</sup>

- appointment of independent board of directors for MAWC;
- review and amendment of the National Environmental Protection Act and associated regulations to require development proposals and environmental impact assessments;
- redevelopment of the Jable and Batkan dumpsites (which are filling up much faster than necessary) and separating different types of solid waste in the waste collection stream; and
- ensuring safe handling and disposal of medical waste; developing and implementing a plan for dealing with the toxic ash produced by the present medical waste incinerator.

The RMI Cabinet authorized the creation of the Majuro Solid Waste Corporation on 5 October 2006. The Nitijela<sup>10</sup> passed an appropriations bill that included \$325,000 for Majuro solid waste management. The TA was requested to develop its business plan.<sup>11</sup>

## The Challenge of Solid Waste Management in Majuro Atoll

The series of stakeholders' consultations, the media coverage, and the public interest generated by the activities of TA 4653 led to positive policy and institutional responses from the government. Civic reactions have likewise been encouraging. However, the private sector has yet to respond to the challenge. With the establishment of MAWC, the retaining wall has been repaired, the main dumpsite is now well managed with all waste covered, recycling is under way, and a new collection service is being piloted.

The TA has paved the way for popular involvement in waste management in the RMI, steering the government's focus in the right direction.

### Endnotes

- <sup>1</sup> Nick Rogers. 2003. Case Study on the Application of Traditional Environmental Management Practices, Knowledge and Values to Solid Waste Management on Majuro Atoll Republic of the Marshall Islands (Ta No. 5913 – Reg). Manila: ADB.
- <sup>2</sup> The rest goes onto the beaches; into private dumpsites; or is hauled to the dump by households, offices, businesses, and commercial haulers.
- <sup>3</sup> <http://pidp.eastwestcenter.org/pireport/2006/December/12-01-06.htm>
- <sup>4</sup> ADB. 2005. Technical Assistance to the Republic of the Marshall Islands for Increasing Ownership of and Effective Demand for Improved Urban Waste Management (Financed by the Poverty Reduction Cooperation Fund). Manila.
- <sup>5</sup> Reports : Options for Marshall Islands Waste Management Aired <http://www.yokwe.net/index.php?name=News&file=article&sid=1644>
- <sup>6</sup> Ibid.
- <sup>7</sup> Ibid.
- <sup>8</sup> TA 4653 RMI Increasing Ownership of and Effective Demand for Improved Urban Waste Management. Executing Agency: The Municipality of Majuro Atoll. TA Approval Date: 22 Sep 2005. TA Completion Date: June 2007. TA Amount: \$300,000, financed by the Poverty Reduction Cooperation Fund contributed by the United Kingdom Department for International Development.
- <sup>9</sup> ADB. 2006. Midterm Report: TA 4653 RMI: Increasing Ownership of and Effective Demand for Improved Urban Waste Management. Republic of the Marshall Islands. October 2006.
- <sup>10</sup> *Nitijela* is the name given to the lower house of the Marshall Islands' legislature.
- <sup>11</sup> ADB. 2006. BTOR of S. Pollard, Principal Economist, PAOD.

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