

Kaoki Mange! Project

Annual Report 2005

Kiribati Solid Waste Management Project kaokimange@tskl.net.ki



Rubbish is a Resource!



Project Aim:

- ***Create a Container Deposit Based Recycling System in Kiribati***

Outcome:

Aluminium cans and PET bottles pay 5c each at import

Lead-acid Batteries pay \$5 Deposit / Refund

Cans and bottles refunded at 20c for five

One cent handling fee ensures system sustainability

Legislation in place that allows easy changes to materials and Deposit / Refund rates

2005 Overview

This year has seen the full Container Deposit system as legislated come into operation. The Project ran the system until late May, and then handed over to a local Private Sector operator. The business had won a competitive tender process initiated earlier in the year, once the system was operational. The period during which the Project ran the system allowed a full appraisal of the monitoring system to be made, and any adjustments to be made. Also, having the Project as operator allowed the more erratic refund claims of the system start-up to be absorbed by the project, until the system has settled to a steady flow.

Privatisation of Recycling System

The Ministry of Environment has let a contract to a local business to operate the entire refund system, and take on responsibility to collect recyclables, and pay out refunds. Refunds are claimed back from the Special Fund, into which the Deposits were paid, at the Ministry of Finance. The operator is able to make money running the system as they are not burdened with any major initial capital investment in land and equipment: the capital equipment, and the land on which the Materials Recovery Facility is sited, remain the property of the Government. In the system design, the local contractor makes 1 cent per beverage container collected, by claiming back from the Special Fund the full 5c Deposit, whilst paying out 4c to the public. The Operator also retains the value of the materials, but must export any recyclables collected, and is responsible for all costs associated with packing and shipping.

Project Aim:

- ***A Fully Operational Materials Recovery Facility***



System Statistics

- \$260,000 paid out in refunds
- 4.7 million aluminium cans recycled;
- 800,000 PET bottles recycled;
- Over 100,000 items per week on average;
- over 500 cubic metres of crushed waste exported ;
- Equivalent to at least 3,000 cubic metres of landfill.
- Over 8,000 lead-acid batteries collected

Outcomes:

MRF has a proven ability to handle materials in excess of original design flows

Car & Scrap Metal Recycling

During 2005, half the Materials Recovery Facility area has been dedicated to recycling scrap metals, and in particular recovering car bodies for scrap through stripping all non-metallic parts, stockpiling useful spare parts for reuse, and collecting recyclable plastics, principally Polypropylene (PP) for subsequent export. Over fifty cars and buses have been completely processed, and can now be cut up for scrap. About 500 tons of scrap vehicles and heavy machinery have been collected. The car dismantling area has also been used for training mechanics from the Tarawa Technical Institute mechanics course. The scrap recycling operation has now been turned over to a local business.



Pre-Paid Greenbags for Landfill Wastes

Project Aim:

- ***Reduce quantities of materials to landfill.***

For much of 2005, the International Waters Program in Kiribati has taken on the work of promoting the Greenbag. The Kaoki Mange distributed a total of 87,000 Greenbags between late 2003 to mid 2005. The IWP has promoted the establishment of a pre-paid garbage bag through a series of activities throughout 2005 centred on Greenbags.

Measurements of Greenbag contents at the Nanikai landfill in South Tarawa at the end of 2005 found that organic content of Greenbags had been reduced to residual levels of 1-2%, and that very few items that were acceptable to the recycling system were ending up in the landfill.

Before:

Household organic waste at least 50%;



**PET bottles and
Aluminium
cans 10%**

After:

Organic waste in the Landfill at a residual 1-2%.



Outcome:

60% reduction of waste to Landfill

Residual levels of recyclable cans and bottles in landfill waste

Collaboration

The project continued to work closely with the International Waters Programme (IWP); the Office of the Attorney General, the Ministries of Environment, Commerce and Finance, both Tarawa Local Governments, who conduct existing waste collections, the Customs Dept, and the Kiribati Chamber of Commerce

Oversight

The Solid Waste Recycling Committee chaired by the Ministry of Commerce, and including all key stakeholders met monthly. Financial reports were produced monthly and quarterly for submission to the Committee and the UNDP.

Monitoring and Evaluation

The project has produced a model that is providing to be of interest to other Pacific Island nations. Feasibility studies have been conducted by the UNDP, drawing on the experience of the Kiribati program, in both the Marshall Islands and the Federated States of Micronesia.

The Project has a careful program of data collection which provides a very useful base of knowledge to draw from. This monitoring program also allows evaluation of initial projections to be accurately compared to real outcomes, which is vital information for planning any subsequent projects. Contact the Project Coordinator (below) for specific information requests.

Project Finances in 2005

Income: ■ A\$228,100

- A\$107,700 from the UNDP.
- A\$ 79,900 from Deposit Refunds
- A\$ 40,500 from recyclables exported

Also:

- A\$5,000 from the British High Commission, Tarawa for a plasma cutter for cutting large scrap metals.

Expenditures: ■ A\$ 209,000

Outlook for 2006

The Project is completing its work in early 2006, with the recycling system now run by private sector operators under contract with the Ministry of Environment, Lands and Agricultural Development (MELAD).

Contact Us

This project was initiated and is managed by The Foundation of the Peoples of the South Pacific Kiribati (FSPK), P.O. Box 43, Bairiki, Tarawa, Kiribati.

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