Kaoki Mange! Project

Annual Report 2004



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

Rubbish is a Resource!



Collect recyclable materials and export them to Australia

Outcome:

Over one million aluminium cans crushed; 100,000 plastic bottles collected and crushed; Shipping containers of cans and cardboard exported Recycled Cardboard collection for stores in operation

Kiribati an example for other Small Island Nations in recovery of wastes

Overview

2004 has seen the Kaoki Mange! Project move into its Phase II operations, to set up a Materials Recovery Facility that could handle 25,000 beverage containers per day returned under a container deposit system. The project has facilitated the drafting of the legislation, which has since passed Parliament in Kiribati. A trial of the deposit refund system had been run for three months, and full system material and financial flows monitoring is in place. Recycling of aluminium cans, PET and HDPE and PP plastics, cardboard boxes, lead-acid batteries, electronic and steel scraps are all under way. Three shipping containers of materials have already been exported.

Project History

Solid Waste Management (SWM) in Tarawa has historically been rudimentary. Around 70% of collected garbage is organic and should not be going into the waste stream. FSP Kiribati developed a SWM model that incorporates a recycling system to increase the existing aluminium can recycling, which was only capturing 15% of available cans, plus collect PET and HDPE plastic bottles and paper/cardboard products. The model also directs organic materials away from the street garbage collection, and captures garbage for the landfill into bags instead of piles in the street. This builds on previous waste awareness work by FSPK of the last 6 years. A design for a recycling system was drawn up that is based on Container Deposit Legislation, and is self-financing.

Phase II

This Phase is concerned with setting up the infrastructure to conduct a full, commercially viable recycling system. The centre-piece is a Materials Recovery Facility that handles a variety of materials, and so spreads costs across a wide range of material values. Because of the predominance of aluminium drink cans in the Kiribati waste stream, these high value items are used to cross-subsidise less valuable materials such as cardboard.

Project Aim:

Set up a Materials Recovery Facility and Container Deposit system



Outcomes:

- MRF operational;
- Container Deposit system trials completed;
- Legislation passed Parliament

By setting the system up, and fully capitaising the whole process, the Ministry of Commerce can let a contract to a local operator, who is able to make money running the system as they are not burdened with any capital investment. 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, as well as the value of the materials.

The Project has run the full Container Deposit refund system as a trial for three months after which interested businesses can tender to win the operation contract. Phase II will finish with the operation being handed over to the winner of the contract. The Project will move to Phase III by providing incidental support to the contractor and government. Project operations and expenses will be much reduced at Phase III, as the MRF operations become fully commercial.

Public Profile

The project name **Kaoki Mange**, and the slogan *Kiribati Te Boboto*, which is used to encourage the clean-up of Kiribati, have entered the vernacular. Newspaper advertisements utilizing these slogans have been run for many weeks in all Kiribati local newspapers, and four radio spots have been recorded for broadcast that incorporate a jingle cut from a song that is part of the Rubbish Play developed by Te Tomatoa theatre group.

A big push was conducted to clean up Tarawa for the Independence Silver Jubilee celebrations in July. With the commencement of refund trials in October, paying 2 cents for every can and plastic bottle bought in, the effect on the streets in the urban areas of South Tarawa has been dramatic. Betio in particular has undergone what some have described as a itransformationî.

The Project continues to actively promoted construction of household *Banana Circles* where household organic and garden wastes are recycled into a pit around which Bananas - or Pawpaw or similar - are planted. This builds on the existing daily clean-up routine of a sweeping up around the house, feeds the bananas for fruit, and keeps the organics out of the landfill waste stream. 6,000 A3 size posters were distributed by the expedient of placing the poster as a

centre-fold pull out in every newspaper.

Kaoki Mangel Ritialkoro
E kanga aron karnenenan te ana ni Kaoki Mangel

1. Boboti mese nerenri kaari ao bastoro
rabwe interce te katholi ni reveragere

2. Usta te katholi natura te manan Mangel

3. Tara balan bastori natura te manan Mangel

3. Tara balan bastori natura ke na ti sawai Mangel

4. Neel mere ritman kaari interce te aktholi samanintare

5. Kanaka i matan bastori natura ao katha i samintare

5. Kanaka i matan bastori natura bastori te katholi
1. Okra merengan ni aksa karnan bastori te katholi
7. Okra merengan ni aksa karnan bastori te katholi
KINDAS TE Bobotos e na reke ngikara e karnananaki teKADIKI MILITERIA KAATISETI

Ti mange skarsa a merakan eta . AKLA RKII

Ti mange skarsa a merakan eta . AKLA RKII

Newspaper stories, and advertisements weekly in all local newsprint media

over 1,000 Radio spots broadcast;



Use The Green Bag

Project Aim:

Reduce quantities of materials to landfill.

Remove the organic materials from the waste stream and return it to the soil;

The project has very actively promoted the use of biodegradable garbage bags. This plays three important roles:

 $\sqrt{}$ To contain waste before pick-up;

√ To make pick-up easier;

 $\sqrt{}$ To force larger organic waste from the wastes stream.

All bags are printed with **Kiribati Te Boboto** in keeping with the public awareness campaign.



Outcome:

50,000 Biodegradable *Green Bag* garbage bags printed with *Kiribati Te Boboto* distributed; garbage bag waste directed to new landfills



Collaboration

The project worked closely with the ADB-funded Community Development and Sustainable Participation Project (CDSP), now closed: the International Waters Programme (IWP); and women's organization AMAK, where a female Project Officer was placed, funded by NZAID, promoting the projects aims within the womenis community. The Project Coordinator has ensured project implementation has been with close consultation with the Attorney Generalis Office, the Ministry of Environment, and the Ministry of Commerce. Also, both Tarawa Local Governments, who conduct existing waste collections, the Customs Dept, local importers, the Kiribati Chamber of Commerce, and the existing aluminium can recyclers.

Oversight

The Solid Waste Recycling Committee chaired by the Ministry of Commerce, with representation from Ministry of Environment, Kiribati Chamber of Commerce, FSP, and SAPHE project management representatives continues to meet monthly. Financial reports are produced monthly for submission to the Committee and the UNDP.

Monitoring and Evaluation

An essential element of this project is that it will produce a model that will be useful to other Pacific Island nations, with local tuning to suit their requirements. To this end a guarterly evaluation and planning cycle is conducted so that planning is as realistic as possible, the model can be better developed in the light of experience, and lessons learned are incorporated into the project in a timely basis.

The Project has also developed a monitoring system for data collection regarding recyclables generation. This system allows daily monitoring of beverage container refunds, weekly and monthly trends, and overall reconciliation of refunds paid out compared to items collected. This is an essential part of the system. This was possible only through donated expert assistance from the South Pacific Applied Geoscience Commission (SOPAC).

Project Finance in 2004

- A\$170,000 from the UNDP.
- A\$35,270 from NZAID;
- A\$29,610 from AusAID;
- A\$75,000 from the SAPHE project funds in the form of equipment purchases:
- A\$2,500 from the Australian High Commission, Tarawa for a car recycling study;
- A\$1,200 from the British High Commission, Tarawa for wool sacks;

A total of A\$313,000 in 2004

In kind donations have been many, and have come from many sources, among them: Maryis Enterprises, FSPK, and Tarawa Motors, in Kiribati; The Coconut Free Press, Pacific Reef Savers, Zero Waste Trust, Greenpeace International, and SOPAC from the region. Many individuals have assisted in myriad ways, because they believe, like us at the project, that together we can make this work.

Outlook for 2005

2005 will see the handover of the project to the Private Sector, under a contract to Government. A Container Deposit system will commence in February 2005, which will ensure project financial sustainability. Monitoring of the project will be ongoing during 2005 to ensure system sustainability. A full report will be issued at UNDP project completion in 2005.

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.

Project Coordinator: Alice Leney Kaoki Mange! Materials Recovery Facility, Betio, Tarawa

Tel: (686) 25296 kaokimange@tskl.net.ki

Project Officer: Uarai Koneteti, FSP Kiribati, Abaroa, Tarawa Tel: (686) 28101, Fax (686)

28082 fsp@tskl.net.ki