

Fourth Regional 3R Forum in Asia

“3Rs in the Context of Rio+20 Outcomes – The Future We Want”

Ha Noi, Viet Nam, 18-20 March 2013

Country Analysis Paper

(Draft)

< Kiribati >

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1. Introduction

The Government of Kiribati acknowledged that poor waste management poses a serious threat to our health, erode our economy and affect our future development. As a small developing island nation in the south pacific region, Kiribati has very limited landmass hence vulnerable to climate change impacts and sea level rise problem, unfertile soil and depends entirely on its marine and groundwater resources for survival. In response, the Ministry of Environment, Lands and Agriculture Development (MELAD) has identified waste management and pollution control as one of the core environmental issues in the Kiribati Development Plan (2012-15) and also in the draft National Integrated Environment Policy that is yet to be endorsed by Government. There is also a draft national waste management strategy identifying national priority waste management issues, this strategy is based on the 3Rs principle as its guiding principle and it is yet to be reviewed and finalized hopefully this year 2012. This strategy will be used as a national road map to address effectively solid waste management (SWM) and pollution problems.

The threat arising from poor solid waste management is made worse due mainly from the increase of waste generated from imported goods as a result of economic and urbanization growth, limited availability of suitable land for landfills which exacerbated by customary land tenure, remoteness resulting in high costs for returning recyclable wastes items making recycling operations not a viable option, lack of appropriate domestic legislations/national policies that deals with the importation of non-environmentally products such as plastics including poor enforcements and monitoring, limited institutional and human resources capacity and the lack of recycling operations available nationally for specific types of wastes items. Therefore the amount of solid waste that is generated is constantly increasing as well as the different types of waste in the waste stream.

2. What Government (MELAD) has done in the past to improve SWM

The problem with poor waste management was first recognized and identified officially in 1994 in the Kiribati State of Environment Report (SOE) funded by the Secretariat of the Pacific Regional Environment Program (SPREP) as a serious problem amongst other environmental issues requiring urgent national actions. The National Environment Management Strategy (NEMS) produced also in the same year set out key waste management areas based on the SOE findings with recommendations on how to address them at the national level.

Following completion of the NEMS and SOE reports in 1994, a number of major waste management programs and initiatives were initiated such as the ADB Institutional Strengthening of the Environment Unit in late 1990s, the passing of the Environment Act by parliament in 1999 (and its amendment in 2007), Sanitation and Public Health and Environment Project (SAPHE) in early 2000, the *Kaoki Maange* Recycling Project funded by UNDP in 2003, the development of the first national waste management strategy in

October 2007 and the removal of the scrap metal by Lagoon Motors in 2008. Recently, there are also ongoing waste management programs now being implemented and funded by NZ and Japan through JICA such as the Urban Development Project and the Japanese Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste Management in Pacific Island Countries (J-PRISM) respectively. All of these major programs show Government concerns and commitments and will continue to do so with the assistance of its development partners in its endeavor to improve waste management in Kiribati.

3. MELAD's role and responsibility in solid waste management (SWM)

The Environment and Conservation Division (ECD) established under MELAD is mandated under the Environment Act 1999 (amended 2007) with its key responsibility to effectively enforce it at the national level. This Act has specific provisions that regulates littering, pigsty wastes, excessive emission from vehicles (black smoke), pollution of water, waste disposal on land and at sea, pollution from premises/public places, polluting activities that harm the environment and the duty to cleanup should anyone found doing so.

However, the amended Act does not directly address the management of hazardous waste like asbestos and healthcare wastes. Of notably important, the amended Act covers only South Tarawa but not all islands in Kiribati including Kiritimati. There are also other key partners involved such as Government Ministries (Health, Local Councils, Public Works, Education, Marine and Fisheries Departments, Office of Attorney, Finance), private sector, NGOs who all have important role in SWM.

4. Ongoing interventions and national efforts to improve SWM

The following interventions are provided through funding and technical supports from the New Zealand (NZ) Government under its Urban Development Program (UDP) and the Japanese Government under the J-PRISM. These are considered as key SWM programs that are now being implemented to improve solid waste collection and disposal particularly on South Tarawa and Betio including Kiritimati. Key activities to be undertaken under these programs are provided below;

4.1. NZ-Urban Development Program

There are only 3 main focal areas under this NZ funded UDP program as follows;

a. Rehabilitation and improvement of existing landfills in Betio, Nanikaai and Bikenibeu villages.

- Rehabilitation of the 3 existing landfills is still progressing including the construction of the site manager's hut inside the landfills including fencing;
- Installation of a temporary storage inside the landfill for e-wastes accidentally disposed inside the landfill;
- Equipment and machineries required for the rehabilitation work such as the front loader and 2 sheep foot rollers for compacting the waste inside the landfills have now been used.
- Manuals for landfill management have been developed and given to councils

- Groundwater and seawater quality testing are major part of the landfill rehabilitation program

b. Pre-paid garbage bag collection system

- These green-bags are specifically designed (similar to normal rubbish bags) but with local wordings written on them) and they are meant for inorganic waste only, not for organic matter.
- Three compactor trucks have now arrived and started already collecting green-bags based on schedules that have also been developed for different villages on South Tarawa;
- Aia Maea Ainen Kiribati (AMAK), MOEL (Private Business) and the Foundation of the peoples of the South Pacific Kiribati (FSPK) are involved in this as implementing partners in terms of community consultation, public awareness and the distribution of the greenbags.
- Distribution of the green-bags has also been made by MOEL to small stores/shops on South Tarawa;
- Public awareness and community consultations have also been undertaken and will be ongoing to get wider publicity and support from the public.

c. Bulky waste collection system (EOL vehicles and e-wastes)

- The bulky waste collection has removed so far over 150 abandoned vehicles on South Tarawa and Betio to a Material Recycling Facility (MRF) yard and there is more to be collected before a certain tonnage is reached before they can be exported overseas for recycling.
- Lagoon Seawall Enterprises is a local company owned by the Kiribati Protestant Church who is engaged in the removal of the bulky waste (EOL vehicles only)
- There are now 2 ship containers (40ft) inside the MRF full up with e-wastes (mainly photocopying machines, video recorders, televisions, desktop computers, printers etc) collected from Government departments and some from the private sector.
- The dismantling of the computer parts and recovering of vital components for recycling is yet to be undertaken

4.2. Japanese Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste Management in Pacific Island Countries (J-PRISM)

Under this project, organic waste is targeted only through the establishment and promotion of compost. The purpose of targeting organic waste is due to its large volume present in the waste stream. Therefore if this “wasted resource” is being used through composting at village/household level, then it would lengthen the life-time of the landfills, enrich the poor soil and provide healthy fruits through home/community gardening. Composting experiments testing different methods (input materials) have already started with Betio Town Council and other selected local farmers on South Tarawa. Results of these trial experiments have now been used to fine tune the most effective method for use. Part of this project is also focused on raising community awareness on compost and its benefits to the community including the Clean School Program. This program involves mainly primary schools on South Tarawa and Betio with its main objectives to raise awareness of the school children the importance of best

waste management practices and also to create an opportunity for schools to start proper waste management at their respective schools in terms of waste sorting, gardening using compost material and other environmental activities inside and outside the classroom..

5. Ongoing national efforts to address SWM problem

Below are some of the main ongoing activities undertaken involving line Ministries, State-owned enterprises (SOE), private sector, youth groups and NGOs

1. Reviewing and endorsing the draft National Waste Management Strategy for implementation. The strategy identifies key waste management issues such as the bulky wastes, non-biodegradable wastes, healthcare wastes (used nappies), etc;
2. Organizing national clean-up activities on voluntary basis (coinciding with international environmental event, e.g. Cleanup the world);
3. ECD Friday fortnightly clean-ups. MELAD has taken initiative in liaising with all Government ministries/SOE/schools to join this fortnightly clean ups. Ministries/SOE/schools have also been allocated with cleaning sites for their own voluntary cleanups;
4. Undertake public awareness raising programs on sound waste management practices including the 3Rs;
5. Undertake environmental auditing (private & government premises)required under the Act;
6. Attending public complaints on waste and pollution issues [bad odor from pigsty, manhole odor discomfort, illegal dumping];
7. Patrolling to monitor and enforce illegal activities under Environment Act 1999 (amended 2007);
8. BTC Jet inspection (Joint Enforcement Taskforce comprising of reps from Councils, Police and Health departments);
9. Boarding foreign vessels ensuring waste management practices is observed onboard – garbage/waste oil not thrown overboard;
10. Form part of BTC waste management committee as member of committee
11. Providing technical support to TUC/BTC for waste management improvement;
12. Attending public complaint lodged with ECD on waste and pollution related issues;
13. Assisting and supporting Health Care Waste Management Committee;
14. Advising the general public on sound disposal practices (waste category, hazardous/toxic level);
15. Assisting the general public in their complaint on irregular waste collection from councils;
16. Coordinating and implementing certain activities under NZAID/UDP and JICA/J-PRISM as mentioned above.
17. Controlling impacts of wastes from any local activities or from environmentally significant activities prescribed under the Environment Act through a licensing system.

Of major recent notable initiative addressing waste management is the development and finalization of the Kiribati integrated environment policy (KIEP) in December 2012 which is now waiting Cabinet's approval. This policy identifies national environment

priorities for implementation over the next four years (2013-2017). The policy is an innovative development by the MELAD which integrates all priority issues in one overarching document and therefore sectors like waste which normally receive inadequate budget can get more attention hence funding from Government.

6. Successes from ongoing SWM programs and initiatives

Some of the successes in SWM includes Te 'Kaoki Maange' recycling project, which exports aluminum cans, PET bottles and wet cell batteries continues to be a success and provides a model both nationally and regionally. These waste items are now hardly seen lying around on the island creating pollution. Not only that but it also creates job to the local community, provide extra financial support for families and also become a source of income to some particularly those family who have no regular income at all. Waste oil from automobile engines in particular is currently exported for recycling in Fiji by the Kiribati Oil company (KOIL);

On an international front, Kiribati is a also party to a number of pollution related conventions including hazardous and toxic chemicals. These conventions such as the Basel Convention and Stockholm Convention to name a few provide funding support with technical assistance to Kiribati in areas where waste management and pollution prevention are concerned.

7. Proposed ideas for future directions in addressing SWM

All of what has been highlighted in this "county analysis paper" is based on the concept that is globally accepted and commonly known as the "waste management hierarchy" when addressing waste management problems. It has various distinct phases beginning from the most preferable options which is waste minimization (targeting waste at source) to the least preferable option which is disposal. This waste management hierarchy is also being adopted and used as a guiding principle in the draft waste management strategy which now requiring immediate endorsement.

Despite current ongoing national efforts as aforementioned in this paper, Kiribati along with other Pacific Island Countries in the South Pacific Region is still struggling to deal with the increasing volume of waste generated in the country particularly e-wastes and EOL vehicles as a result of goods/products being imported from overseas. Currently, there are technical issues encountered with the "return" of recyclable waste items on a sustainable basis to their point of origin or country of import or to any countries especially in the case of e-wastes, EOL vehicles and plastics.

MELAD would continue to work closely with development key partners in the region and also at the national level to improve SWM. Not only that but also to work closely together with other PICs in the region to share successful waste management initiatives that are viable and pragmatic in our own respective countries and also to learn from Asian Countries their experiences also in SWM. Of course SPREP has also a major role and responsibility in coordinating and developing regional programs that would assist our national efforts to address on-going problems with SWM and perhaps also to advocate through regional and international forum meetings that SWM is a regional priority that should be given highest priority.