

Solid Waste Management in Pacific Island Countries: Current Progress and Future Needs

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Presentation Overview

- Solid waste has been recognised as a problem for the Pacific Islands for many decades but it is only in the last ~10 years that significant progress has been made in addressing the issue
- One of the main driving forces for this progress has been the development of the Regional Solid Waste Strategy
- The 2009 review of the Strategy indicates that much has been achieved; but much more needs to be done
- Priority concerns for the region include sustainable financing, integrated waste management, legislation, education and awareness, and capacity building
- Two other aspects that I believe should be targeted, particularly from an international perspective, are technology transfer and private sector engagement and support

Key Regional Policy Developments

- 1983 – Action Plan for Managing the Natural Resources and Environment of the South Pacific Region (UNEP Seas Reports and Studies No. 29)
- 1994 – SPREP¹ Waste Minimisation, Management and Pollution Prevention Programme endorsed by SPREP member countries
- 2003 – Pacific Island Leaders' Meeting with the Government of Japan (PALM 3) endorses the development of a regional solid waste strategy
- 2005 – Solid Waste Management Strategy for the Pacific Region adopted by SPREP member countries
- 2009 – Pacific Regional Strategy review, and adoption of the 2010-2015 Strategy by SPREP member countries

Secretariat of the Pacific Regional Environment Programme
(formerly South Pacific Regional Environment Programme)

Past Regional Activities

- Persistent Organic Pollutants in Pacific Island Countries (POPs in PICs) - AusAID, POPs waste removal & disposal, 1998-2006
- Waste Education & Awareness (WASTE) Project - EU, 1998-2001
- JICA solid waste programme (Miyazaki Initiative) – training, landfill improvements, demonstration projects, landfill guidelines, 2000-2004
- International Waters Project – community based waste management projects, GEF, 2001-2006
- JICA, AusAID and NZAID – support for development of the regional waste strategy, 2004-2005
- Pacific Regional Year of Action Against Waste – 2005/2006
- JICA Solid Waste Management in Oceania- support to implement the regional waste strategy, 2006-2009 (bilateral/regional)
- AFD – feasibility studies for solid and hazardous waste management, and support for regional priority setting, 2006-2009

PLUS: numerous bilateral and national activities over the last 10-15 years

Future Regional Activities

- JICA waste management (formal commitment at the PALM 5 Meeting, May 2009 to a further programme – currently under negotiation - for the next 5 years)
- AFD solid waste initiative – commences late 2010
- GEF-PAS: Pacific POPs Release Reduction through Improved Management of Solid and Hazardous Wastes – 5 year project, implementation in early 2011
- EC MEA Capacity Building project (component on pesticide-contaminated sites – currently underway)

Country Progress with the Regional Strategy

Out of 21 Independent States and Territories:

- 16 have or are developing a national coordination mechanism
- 16 have or are developing Solid Waste Management Strategies
- 3 have upgraded their waste collection systems
- 6 have or are developing improved disposal sites
- 7 have or are developing new disposal sites
- 4 are collecting and analysing waste data (8 also previously done under the EU Waste project)
- 4 have or are developing local recycling systems
- 4 have or are developing waste minimisation strategies
- 4 have or are developing waste recycling strategies

For full details refer the 2010-2015 Strategy document available from www.sprep.org

Pacific Island Priorities for Solid Waste

- Sustainable financing (11 countries)
- Integrated solid waste management (12 countries)
- Legislation (6 countries)
- Awareness/communication/education (6 countries)
- Capacity building (6 countries)
- Environmental monitoring (1 country)
- Policy, planning, performance (2 countries)

For full details refer the 2010-2015 Strategy document available from www.sprep.org

Discussion Points

- The Pacific Islands are well positioned to continue making significant progress in managing solid wastes
- I fully support the priority areas identified in the Regional Strategy
- However, in my view the following areas would also benefit from some significant inputs, especially from the international community:
 - Sustainable financing
 - Technology Transfer
 - Private sector engagement and support

Sustainable Financing - 1

The Issue

Most progress to date has been achieved through external funding. Countries need to shift to internal funding over time, by recognising the real costs associated with solid wastes, and the level of investment needed to address these.

How much do countries spend on waste?

Low income country: US\$3-10/capita/yr
 Middle income country: US\$12-30/capita/yr
 High income country: US\$60-114/capita/yr
 (source: S. Cointreau, World Bank, 2006)

How much should be spent to achieve an 'acceptable' standard?

eg. New Zealand: US\$30/capita/yr

What are the real costs of solid waste?

Tonga estimate: US\$20/capita/yr
 Palau estimate: US\$100/capita/yr
 (Source SPREP publications)

Both of these studies are based on limited data and would benefit from further refinement

Sustainable Financing - 2

Funding mechanisms identified in a SPREP Guide (2009)

- Waste generation fee (user fee)
- Waste disposal levy (tipping fee)
- Environmental levy (on products or visitors)
- Deposit-refund programmes
- Tax incentives and disincentives
- Waste management trust fund

But are these capable of catching more than a fraction of the total funding needs?

Experience in other countries suggests the most viable option is waste generation/disposal fees, but only if institutionalised (eg. as a component of property/land taxes or rates). The key hurdle then is political willingness to commit to this approach.

Sustainable Financing - 3

Moving Forward:

- More detailed economic analyses of solid waste costs and benefits in selected countries (case studies)
- Detailed studies and analysis of institutional options for funding in selected countries
- Publication of the results and preparation of information packages targeted at decision makers

Technology Transfer- 1

Issue:

Solid waste management in the Pacific relies heavily on landfill disposal (but land is often in short supply) and export of materials for recycling (which is vulnerable to market prices)

Opportunity:

There are now a significant number of technologies available (or under development) for converting wastes into valuable byproducts, and we should start looking at getting them adapted/adopted in the islands

Benefits:

Reduced waste quantities to landfill

Production of valuable byproducts which can be used to offset waste costs

Reduced need for shipping waste materials off-shore

Technology Transfer- 2

Candidate Technologies

- Centralised composting facilities
- Organic waste to energy plants (biogas, biofuels)
- Use of ground glass in concrete and related applications
- Use of pulped waste paper (eg for packaging)
- Conversion of plastics to fuel
- Waste pyrolysis systems (tyres, plastics, or solid waste generally)
- etc

Technology Transfer- 3

Moving Forward:

- Feasibility studies for specific countries and/or technologies
- Demonstration projects and/or pilot scale development projects (where technology adaption is required)
- Case Studies/information dissemination

(Note: the long-term viability of most of these technologies will be dependant on effective national funding mechanisms for waste management)

Private Sector Engagement - 1

Issue :

Many solid wastes in SIDS are the result of imported packaging and other materials, and hence driven by international supply chains. There is little that governments can do to directly influence the flow of these materials

Opportunity:

The benefits of Extended Producer Responsibility are now well recognised by national and international corporations (and others) but most responses are mainly effective within their own 'back yards'

Response:

Need to build on the growing sense of corporate responsibility (and possible publicity opportunities) to get them actively involved at the far end of their supply chains; ie. in SIDS and other developing countries

The UN Global Compact should provide a suitable starting point for this work.

Private Sector Engagement - 2

Options for Corporate Inputs

- \$\$ contributions to national or regional waste trust funds (eg. based on product sales volumes in each country)
- Sponsorship of specific waste activities (eg. waste clean-up campaigns, demonstration projects, etc)
- Facilitating and/or subsidising take-back/recycling schemes through their own supply chains
- Facilitating in-country recycling businesses (eg. systems for refilling printer cartridges)
- Development of local or regional manufacturing/processing facilities (eg. bottling plants for beer and soft drinks)
- etc

Private Sector Engagement - 3

Moving Forward:

- **Formal measures to have solid waste management included as a focal area for activities under the UN Global Compact**
- **Appointment of a Facilitator(s) to work with Compact members to identify potential waste management activities**
- **Implementation, monitoring, reporting and promotion of selected activities**