

REGIONAL 3R FORUM IN ASIA AND THE PACIFIC

Mission Zero Waste

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CREATING INVESTMENT OPPORTUNITIES IN WASTE MANAGEMENT SECTOR

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THE GLOBAL CONTEXT...

Generation	→	<ul style="list-style-type: none"> ▪ Waste generation rates are rising with economic growth ▪ 0.68 billions tons / year at 0.64 kg / capita (2009) to 1.3 billion / year in 2012 at 1.2 kg / capita ▪ Projected to reach 2.2 billion tons / year at 1.42 kg / capita ▪ South and East Asia contributes 33% of global waste generation
Collection	→	<ul style="list-style-type: none"> ▪ Overall – 60% collected (41 % in low income counties to 98% in high income countries) ▪ Average collection in South Asia is about 65% ▪ Collection across regions are showing increasing trends
Disposal	→	<ul style="list-style-type: none"> ▪ Limited data on waste disposal – information on only 87 countries available ▪ Overall 55% disposed in landfills / open dumps ▪ Most low-income and middle-income countries dispose waste in open dumps and / or poorly operated landfill
Financial	→	<ul style="list-style-type: none"> ▪ Waste management costs will increase from US\$205 billion in 2012 to US\$375 billion by 2025 ▪ Cost increase could be 4 to 5 fold in lower and middle income countries
Technical	→	<ul style="list-style-type: none"> ▪ Limited technical capacity and understanding of waste management sector impacts decision making ▪ Experience and expertise with the private sector is very limited in low and middle income countries ▪ Information exchange on good practice examples / scalable models of waste management is limited
Socio-Economic	→	<ul style="list-style-type: none"> ▪ Poor are disproportionately affected due to improper waste management ▪ Role of informal sector in primary collection and resource recovery is often impacted when formal /

* World Bank, 2012. "What a Waste – A Global Review of Solid Waste Management".

WASTE MANAGEMENT PROGRAMS AT WORLD BANK

Cross Sectoral

- Collaboration by Urban, Environment and Social Practices

Focused on

- Analytical and Investment Support

Innovative Programs

- GEF and other Grant Programs (PMEH, etc.)

Knowledge Management

- multi sectoral ‘Solid Waste Management Thematic Group’

BANK'S WASTE MANAGEMENT PORTFOLIO

Investments in solid waste management projects have increased over the last 17 years

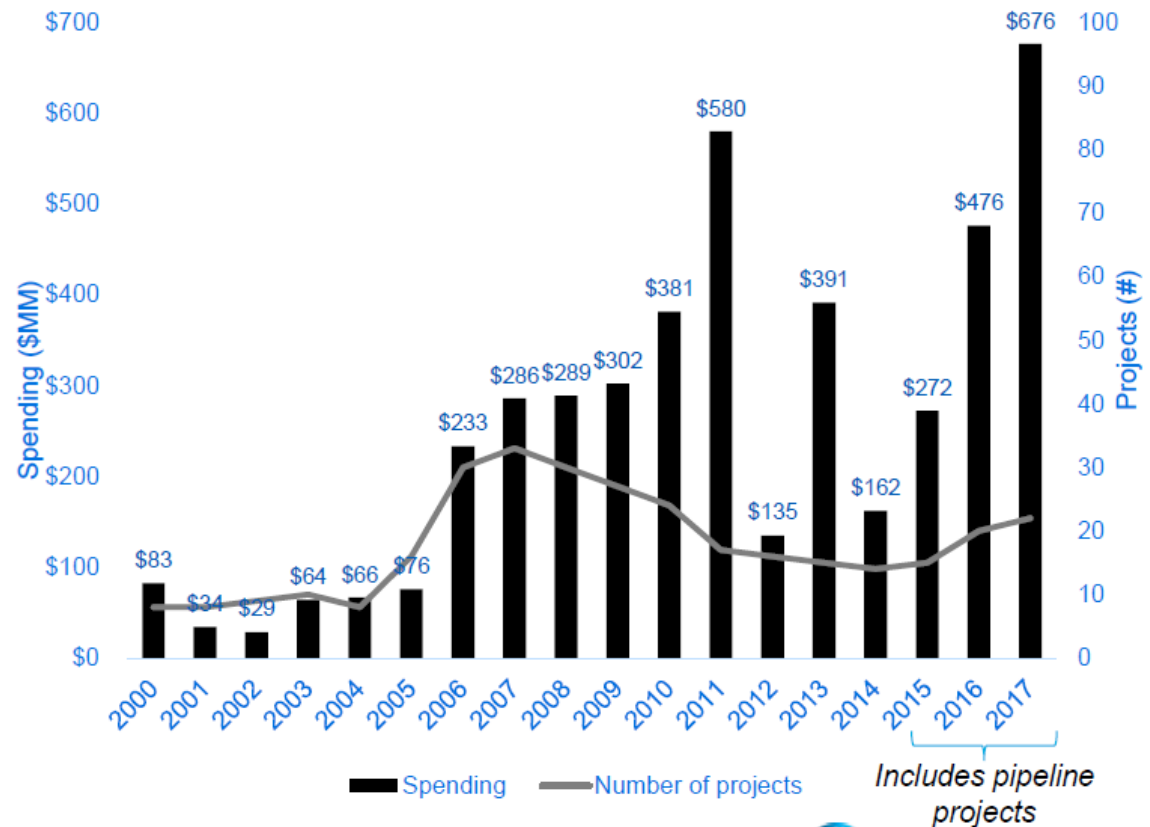
4.5 BN

Dollars committed
2000-2016

300+

Projects with solid
waste component

Commitments to solid waste lending projects
Approval Date Fiscal Year 2000 – 2017



FINANCING INSTRUMENTS

Multiple instruments available for solid waste management solutions

1	Investment Project Financing	Collection and disposal infrastructure Capacity building
2	Program-for-Results Financing	Collection
3	Development Policy Loans	Governance and policy reforms
4	Reimbursable Advisory Services	Technical assistance Policy advice
5	Analytical and Advisory Services	Technical assistance

Cross-cutting Priorities:

Sustainable Financing | Environmental Sustainability | Social Inclusion & Safeguards

WASTE MANAGEMENT PROJECTS IN INDIA

- UP Solid Waste Management Project (Pipe Line)
 - ✓ About US \$ 280 million project across major cities of the state
- Industrial Pollution Management Project (Ongoing)
 - ✓ two demonstration projects (US \$ 15 million) on scientific closure and containment of closed dump sites
- Integrated Coastal Zone Management Project (on going)
 - ✓ over US \$ 5 million integrated waste management sub-project at Paradeep, Orissa and SWM Plans in other coastal cities
- Tamil Nadu Urban Development Project (ongoing)
 - ✓ technical support to the development of waste management plans and programs
- Technical Assistance for Waste Management in Mountainous Areas of India, Nepal and Pakistan

BANK ACTIVITIES – PPP SUPPORT

Infrastructure Finance Corporation, WBG

- Provides support to PPP operations through infrastructure advisory
- Programmatic Support to MoUD on Waste to Energy and remediation of municipal dump sites (pipe line)

Programs in South Asia

- Sri Lanka Emergency Solid Waste Management Project
- Maldives Solid Waste Management Program
- Results Based financing for Municipal Solid Waste Services in Dhankuta Municipality, Nepal (2013)
- Support to Compost Plants in Lahore and Kabul

INVESTMENT CLIMATE

Urban Local Bodies

- Absence of national / state guidance on project development and waste disposal / processing technologies
- vulnerable to claims of technology providers / vendors
- do not have resources / knowledge to develop good project documents, and often don't want to invest time

Private Sector / Technology Providers

- Uncertain project parameters and contract execution risks
- Unclear/ in-appropriate risk allocation in PPP / other contracts
- Political Economy Risks and Payment Risks
- Absence of clear regulatory mechanism for new technologies

A FEW SUGGESTIONS...

- Develop a National Road Map for ‘integrated waste management’
- Develop a National Level ‘Solid Waste Management Network’ to share experiences
- Build Technical Capacity and Professional Cadre on Waste Processing and Disposal
- Establish of an apex body to set up standards, provide technical guidance on all facets of Waste Management – Strengthen CPHEEO or an institution similar to Indian Roads Congress ???

Thank You