IFC’s Approach to Solid Waste
IFC - Who We Are, What We Do

Deep Industry Experience
IFC is a Member of the World Bank Group

IBRD
International Bank for Reconstruction and Development
Est. 1945

Role: To promote institutional, legal and regulatory reform

Clients: Governments of member countries with per capita income between $1,025 and $6,055.

Products: - Technical assistance
- Loans
- Policy Advice

IDA
International Development Association
Est. 1960

Role: To promote institutional, legal and regulatory reform

Clients: Governments of poorest countries with per capita income of less than $1,025

Products: - Technical assistance
- Interest Free Loans
- Policy Advice

IFC
International Finance Corporation
Est. 1956

Role: To promote private sector development

Clients: Private companies in member countries

Products: - Equity/Quasi-Equity
- Long-term Loans
- Risk Management
- Advisory Services

MIGA
Multilateral Investment and Guarantee Agency
Est. 1988

Role: To reduce political investment risk

Clients: Foreign investors in member countries

Products: - Political Risk Insurance

Shared Mission: To Promote Economic Development and Reduce Poverty
IFC’s Global Reach

100+ country and regional advisory services offices worldwide
What IFC Offers

IFC Investment Services
- Loans/ Equity
- Syndications
- Trade finance/ Securitized finance
- Client risk management services
- Treasury services
- Liquidity management

IFC Advisory Services
- Access to finance
- Sustainable Business
- Investment Climate
- Public-Private Partnerships

IFC Asset Management Company
- Wholly owned subsidiary of IFC that invests third-party capital alongside IFC, with approximately US$4 billion under management as of June 30, 2010
Financial Products - From Equity to Debt

- Corporate and JV
  - Typically 5-15% shareholding (not to exceed 20% of total equity)
  - Long-term investor, typically 6-8 year holding period
  - Not just financial investor, adding to shareholder value
  - Usually no seat on board
  - Infraventures (early equity investments)

- Subordinated loans
- Income participating loans
- Convertibles
- Other hybrid instruments

- Senior Debt (corporate finance, project finance)
  - Fixed/floating rates, US$, Euro and local currencies available
  - Commercial rates, repayment tailored to project/company needs
  - Long maturities: 8-20 years, appropriate grace periods
  - Range of security packages suited to project/country
  - Mobilization of funds from other lenders and investors, through
    - cofinancings, syndications, underwritings and guarantees

Equity

Mezzanine / Quasi Equity

Senior Debt & Equivalents
# How We Finance Projects

<table>
<thead>
<tr>
<th>Project Type</th>
<th>IFC Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greenfield, total cost less than $50 million</td>
<td>Up to 35% of project cost for IFC’s account</td>
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<td>Greenfield, total cost more than $50 million</td>
<td>Up to 25% of project cost for IFC’s account</td>
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<tr>
<td>Expansion or rehabilitation</td>
<td>Up to 50% of project cost</td>
</tr>
</tbody>
</table>

- Umbrella for participants in IFC’s syndication program: IFC lender of record, immunity from taxation and provisioning requirements.

- IFC’s total financing (for its own account) must be less than 25% of total company capitalization, and IFC does not manage or have largest stake.
Fiscal Year 2011 Highlights

- **Investments:** $18.7 billion in total financing: $12.2 billion for IFC’s own account; $6.5 billion mobilized, in 518 new projects in 102 countries.

- **Portfolio:** $55.2 billion portfolio, representing investments in 1,737 firms.

**Investments by Industry and Region, FY11**

**Commitments for IFC’s Account: $12.2 Billion**
IFC and Solid Waste

Advisory Services
Public Private Partnership

- IFC provides transaction advice to national and municipal governments in emerging markets to implement sustainable PPPs that improve living standards and promote long-term economic growth.

- Our work balances the requirements of investors with public-policy considerations and the needs of the community.

- Since 1989, IFC has worked on more than 285 private-sector participation transactions worldwide and is the only multilateral institution to offer such advisory services to governments directly.
  - Designing and implementing PPP
  - Arranging management concessions
  - "Support for extending access"
Public-Private Partnerships - Shared Responsibility

- **Structuring sustainable agreements**
  - “Balanced deals”
  - Transparency
  - Attention to downside
  - Financially, economically, politically sustainable structures

- **Financial Support**
  - Assets
  - In-kind contributions
  - Funding
  - Subsidy

- **Political support**
  - Legal and regulatory frameworks

- **Financing**
  - Capital
  - Local currency facilities; guarantees and structured financial products

**IFC**

**Infrastructure Project**

**Government**

**Private Sector**

**IFC**

International Finance Corporation
World Bank Group
IFC and Solid Waste Infrastructure
Working Across the Waste Value Chain

- IFC finances projects **across the waste value chain** from upstream industry/populations to downstream disposal and energy utilization.
Investment Approach

• Promote **development of waste industry in emerging markets**, help reduce costs, and allow the industry to become competitive

• IFC investments support integrated SW management approach
  - Regional approaches to gain economies of scale and drive down costs

• Leverage existing formal and informal sectors for collection and recycling, to maximize poverty & social impacts, improve health & safety, and drive gender equality

• Encourage low cost, technically viable, and climate favorable waste collection and disposal solutions with energy recovery where feasible

• Support upstream industry / populations to adopt “3Rs” - Reuse, Reduce Recycle

• Access concessional finance to enable waste projects in LICs where full cost recovery is not yet possible due to ability to pay or insufficient regulatory framework
## IFC Solid Waste Management Projects

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>IFC Investment</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Infrastructure Investment</strong></td>
<td></td>
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<tr>
<td><strong>Modern Asia (Thailand/Indonesia)</strong></td>
<td>Waste collection/transport/recycle/treat/dispose</td>
<td>US$15 mm (corporate finance)</td>
<td>2004</td>
</tr>
<tr>
<td><strong>Ramky (India)</strong></td>
<td>MSW, hazardous industrial, biomedical waste treatment</td>
<td>US$15 mm (corporate finance)</td>
<td>2005</td>
</tr>
<tr>
<td><strong>Petstar (Mexico)</strong></td>
<td>Plastic recycling</td>
<td>US$24.5mm (project finance)</td>
<td>2007</td>
</tr>
<tr>
<td><strong>Estre Ambiental (Brazil)</strong></td>
<td>Sanitary landfills/waste treatment</td>
<td>Approx. US$24.5mm (corporate finance)</td>
<td>2009</td>
</tr>
<tr>
<td><strong>Advisory/Financial Markets</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Vietnam Battery Recycling</strong></td>
<td>Recycle car batteries - Establish Regs and run recycle pilot program</td>
<td>Advisory Services</td>
<td>2010</td>
</tr>
<tr>
<td><strong>PPP - SW Maldives</strong></td>
<td>Waste collection/transport/recycle/treat/dispose</td>
<td>Conduct PPP Process 20 yr BOT</td>
<td>2011</td>
</tr>
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</table>

In 2010, IFC invested US$1.6 billion in climate change business, which is a 60 percent increase from the previous year. By 2013, IFC aims to increase its climate change business to at least 20% of its total annual commitments.
IFC SW Investment Experience

Case Studies
Maldives SW PPP- Project Overview

- **Project**
  - Integrated Waste Management project for 4 islands in the capital region generating nearly 400 tons of waste per day

- **Context & Background**
  - Collection done by informal sector - not bad but inconsistent; user charges
  - Municipality does transportation and disposal - severe environmental issues
  - 17 years of environmental abuse at Thilafushi island
  - Operations funded by Government budget

- **Government Objectives**
  - Manage waste in an environmentally friendly and sustainable manner
  - Improve waste management collection services
  - Introduce efficient waste treatment & disposal systems that limit damage to the surrounding marine environment
Maldives SW PPP Case Study

- **Bid Results:**
  - Bid was awarded to Tatva Global Renewable Energy (Maldives) Ltd - a consortium of UPL Environmental Engineering Limited (India) and MDSE (Germany) - May 2011

- **PPP Structure:**
  - Tripartite agreement among Tatva, Municipality and Govt Guarantor: Ministry of Finance
  - 20 Yr BOT
  - Tipping Fee (USD / ton) for treatment & disposal and Transportation Fee (USD / ton-km) for collection & transport
  - Government has guaranteed waste volume of 200TPD
  - Tariff collection risk borne by the Govt.
  - Invoicing by Tatva in USD; Govt. payment in local currency at Monetary Authority rates at time of invoicing

- **Key Terms:**
  - Collect and transport waste from Malé and 4 islands; MBT facility (sorting, composting) construction of LF, 2.7 MW WTE gasification facility. Scheduled COD in Feb 2013.
  - USD 50 million investment
Estre Ambiental, Brazil - Case Study

• Leading privately-owned solid waste management (SWM) company in Brazil

• Started in 1999 with 1 landfill

• Business portfolio included:
  ▪ Six sanitary landfills - 5 in Sao Paulo, Brazil and 1 in Buenos Aires, Argentina
  ▪ Others

• 5.6 million tons disposed in Estre landfills in 2008
  ▪ 15,400 tons per day

• Existing landfills with 70.2 million tons of capacity (only ~ 30% utilized)
Estre Landfills - Key Business Considerations

• Regulatory Environment
  ▪ Gov’t policies/regulation to enforce disposal in sanitary landfills

• Solid waste supply
  ▪ Min Volume/ Price / Term/ Exclusivity
  ▪ Client concentration

• Municipality financial strength
  ▪ Household trash collection bill/ budget line item?
  ▪ State/federal subsidies/guarantee

• Competition
  ▪ Access to land and community approval

• Technical considerations
  ▪ Landfill size/capacity, design, stability, road access
  ▪ Type/quality of waste
  ▪ Sponsor ‘s technical competence and track record

• Corporate governance
  ▪ Family-owned business

• Security
Estre Ambiental Case Study

• Project Description:
  • Leading privately-owned solid waste management (SWM) company in Brazil. 5.6 million tons disposed in Estre landfills in 2008 (15,400 tons per day).
  • Existing landfills with 70.2 million tons of capacity (only ~ 30% utilized)

• IFC Investment:
  • IFC Investment (FY09 commitment)
    • A Loan of BRL 40 million
    • C Loan of US$ 4.5 million
    • Approx. US$24.5 million

• Estre Plan
  • Aggressively expand waste operations in Brazil
  • Improve SW collection and disposal practices in Brazil, reduce GHG emissions, reduce unfavorable environmental and H&S impacts resulting from improper disposal of waste

• Developmental Impacts
  •
Wrapping up....

• What the IFC does:
  - We are the main financial player for the private sector in emerging markets. Sustainability and Climate Change are core priorities.
  - Provide a range of financial products and expertise across sectors in emerging markets to support the private sector, and enable liquidity and risk sharing.
  - Assisting in the reduction of transaction costs through Advisory Services.

• What we are looking for in the SW sector:
  - Direct Investment in projects, typically single investment in a company or project >US$15 million; less depending on technology and emerging market
  - Smaller projects - Financial markets through a network of over 700 financial institutions supporting portfolios of smaller projects (replicable, scaleable)
  - Govts looking to involve the private sector to address waste issues/opportunities

• What we can’t it do:
  - Finance projects or technologies that are
    - Not commercially proven. Can assume some scale-up risk
    - Promoted by project sponsors with limited experience and/or capital
Further Information

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