IFC’s Investment and Advisory Services

Technical assistance and advice to governments and businesses

World’s largest multilateral provider of financing for private enterprises

$30+ billion in outstanding investment commitments
IFC PPP Transaction Advisory Services

- **Lead advisor, to governments**

- **Long, successful global track record of Advisory Services**
  - Over 165 projects in more than 60 countries since 1989
  - Mobilized more than $8 billion capital post-transaction, since 1995

- **IFC adds considerable value to the PPP transaction:**
  - Identifies and markets projects to qualified investors.
  - Brings transparency and credibility to the bidding process
  - Signals government’s commitment to improve its economy through Private Sector Participation (PSP).
### Recent & ongoing PPP transactions - Global

#### Water/Irrigation
- Brazil
- Egypt
- Gabon
- India
- Maldives
- Morocco
- Pakistan
- Philippines
- Romania
- Saint Lucia
- Saudi Arabia

#### Telecom
- Botswana
- Comoros
- Haiti
- Kenya
- Mauritania
- Uganda

#### Ports/Airports
- Brazil
- Jordan
- India
- Madagascar
- Maldives
- Mauritius
- Niger
- Saudi Arabia

#### Air/Roads/Rail
- Bhutan
- Brazil
- Cameroon
- Colombia
- Egypt
- Haiti
- India
- Jamaica
- Jordan
- Kenya
- Mexico
- Montenegro
- Nigeria
- Samoa
- Saudi Arabia
- Serbia
- Tanzania
- Tonga
- Uganda

#### Health
- Brazil
- Botswana
- Lesotho
- India
- Mexico
- Romania
- Uzbekistan

#### Education

#### Power
- Gabon
- Indonesia
- Lebanon
- Liberia
- Montenegro
- Panama
- Peru
- Philippines
- Trinidad & Tobago
- Vietnam
- Yemen
CASE STUDY: MALDIVES SOLID WASTE MANAGEMENT
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 (carbon neutral country)
- Improve waste management collection services
- Introduce efficient waste treatment & disposal systems that limit damage to the surrounding marine environment
Role of Operator in an Integrated System

Costs
- Collection Equipments & Vehicles
- Staff Salary
- Operation Costs
- Trucks / Tippers / Barges
- Staff Salary
- Fuel Costs
- Other O&M Costs
- Civil Structures
- Recycling Equipments & Machinery
- O&M Costs
- Treatment Plant
- Related Infrastructure (power, water)
- O&M Costs
- Landfill Design
- O&M Costs

Collection
Transportation
Storage & Recycling
Treatment
Disposal

User Charges
- Residential
- Commercial
- Bulk producers

Tipping/Gate Fee

Sale of Recyclables
- RDF
- Compost
- Power (W2E)

Revenue

Tipping/Gate Fee
Key Structuring Issues - Sector Related

- **Waste Quality & Quantity**
  - Waste data helps operator determine plant type and capacity
  - Poor data on waste may result in installation of expensive and unsuitable systems -> reason for failure of multiple projects specifically waste to energy projects in India

- **Minimum Waste Volume Guarantee**
  - Required by operator to ensure minimum assured revenue -> enhances project bankability for financing
  - Good estimation of current waste generation is needed
  - Government support for this commitment is must

- **Environmental & Social issues**
  - Existing labor force
  - Ragpickers whose livelihoods may be effected by project implementation
  - Landfill site suitability (water table, NIMBY syndrome)

- **User Fee Collection**
  - Responsibility of user fee collection should ideally remain in public sector
  - Lack of private sector willingness to engage in this role
Key Structuring Issues - Government Related

- **Government affordability**
  - System design and treatment technologies should be based on government objectives and affordability and not driven by market offerings
  - Do not fall prey to “there are dollars in garbage” perception
  - Good project preparation & baseline studies help the government make educated decisions on suitability, affordability and reliability

- **Payment Security**
  - Municipal credit ratings are poor -> Tipping Fee payment securitization by credit-worthy entity is essential
  - Possible structures for backstopping payments/credit enhancement
    - Tripartite agreements between bidder, municipality, guarantor
    - Back to back arrangement between municipality & guarantor
    - Revolving letter of credit/escrow account

- **Waste to Energy**
  - Good assessment of available waste quality
  - Availability of grid to off-take power in close vicinity is required
  - Existence of a preferential tariff to off-take power and willingness of the offtaker/s to buy such power at such rates is needed
Key Structuring Issues - Bid Process Related

- **Technology Neutral Bid**
  - Bids based on output specifications rather than on predetermined technologies and system designs allows the bidder to propose innovative solutions.
  - Difficulties may arise during bid evaluation if proposed technologies vary significantly -> could be dealt with detailed objective technical proposal evaluation criteria with minimum technical score requirements.

- **Financial bid**
  - Sole criterion – tipping fee.
  - QCBS vs. L1

- **Reliability of Private Operator**
  - Ability of the operator to manage and operate plants should be assessed through reference checks/sites visits to bidder facilities.
  - Operator’s credentials should not be relied upon just based on its “claims” in its proposal.

- **Account for “holidays” during bid process**
Key Structuring Issues - Other

- Currency devaluation and availability risk
- Potential repatriation risk
- Fuel cost pass-through
- Tariff/tipping fee indexation
- Penalties for non-performance
- Termination payments

- Interim Services for waste collection
  - Applicable for integrated waste management system
  - Allows the government to receive minimum services early on
  - Government payments are limited to C&T services only
TRIPARTITE AGREEMENT

Male’ City Council
- Pays Tipping Fees
- Lease land for transfer station

Ministry of Finance
- Raises Invoice

Thilafushi Corporation
- GUARANTOR
- Lease land for landfill
- PPA for waste to energy

Special Purpose Vehicle
- Provides MSWM Services
- Pay SWM Charges
- Collect User Fees

Residences

Commercial

Resorts

Power Utility

Users
Key Features of the Agreement

- Integrated responsibility of private sector - cradle to grave
- Tripartite agreement between bidder, municipality and Government to minimize municipal credit risk
- Comply with EPA/USEPA guidelines and WBG standards
  - Operator cannot dispose more than 5% organics and more than 20% of overall rejects in landfill
- Tariffs set by Government
- Tariff collection risk borne by the Government
- Invoicing by operator in USD; Government payment in local currency at Monetary Authority rates at time of invoicing -> protects against currency devaluation risks
- Private operator’s revenue depends on
  - User charges from construction waste
  - Sale of recyclables
  - Sale of treatment byproduct – energy/compost/gas
  - Tipping fee
- Government has guaranteed waste volume of 200TPD
Bid Results

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

- Scheduled COD for full operations in Feb 2013. Interim Services to commence in Mar-April 2012.

- Project cost estimated at USD 50 million

- Will provide improved waste management services to nearly 60-70% of the country’s population

- Proposal by bidder to setup gasification plant of 2.7MW capacity -> potential for generation of CDM benefits
Lessons Learned in Waste PPPs

- **Waste quantity and quality** are determining factors for success of any technology relating to processing of MSW. **Good baseline studies as part of DPR are critical.**

- Need to provide **flexibility in technology** selection to private operator - focus on outcome based indicators rather than input based factors. **Allows bidders to innovate and provide solutions that fulfill government objectives.**

- **Political championing** is necessary for successful PPPs. **Multiple stakeholders involved in the waste sector (urban local bodies, health department, state nodal agencies etc.) coordination & championing is key.**

- There is a need for private players to provide for better **customized technologies** for screening and segregation of MSW into wet and dry waste to achieve quality processing output like compost, RDF, pallets, power, eco-bricks etc.
Lessons Learned in Waste PPPs

- **Project preparation** is a painstaking process and there should be no short-cuts; allow for adequate time for project preparation.

- **Land acquisition** is critical for the success of PPP projects. Treatment & disposal facilities are land intensive. Land, free from encumbrances, needs to be made available with the project.

- Pressing need to formulate structured ICE (*information, communication, and education*) activities to involve community of informal workers (rag-pickers), residents etc. and internal stakeholders like sanitary workers and employees. Wading away negative perceptions and awareness building allows the municipality to garner public support for the project who may in the long run serve as effective monitoring units over private operations.

- Investors are also key stakeholders; get them involved early on and have a series of consultations on the project structure and bid documents.
THANK YOU

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