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Background note to the session on MANAGING AND FUNDING URBAN INFRASTRUCTURE PROJECTS

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Financing of Urban Waste Management Projects: The role of Clean Development Mechanism (CDM)

Introduction

India generates close to 40 million tones per year of Municipal Solid waste (MSW) every year[1] and is expected to cross over 125 million tones by 2030 (Sristhi 2000). In order to manage such a huge waste generation, a national policy and legislation for MSW management, titled the Municipal Solid Waste (Management and Handling) Rules[2], was notified in 2000 and it came into effect from January 2004. As per these rules, the Urban Local Body (ULB) is responsible for the management of MSW including collection, transportation, treatment and disposal of MSW. However, most ULB are yet to take initiatives to comply with the Rules due to lack of financial resources, institutional weaknesses, and improper choice of technology.

ULBs are spending most of their funds on collection and transportation with minimum focus on treatment and disposal of MSW. As a result, the current practices of the uncontrolled dumping of waste on the outskirts of towns/cities have created serious environmental problems including unabated emission of methane, having high global warming potential.

Funding projects of Municipal Solid waste management

Waste management services have certain common characteristics: they are expensive to set up (associated with high sunk costs), enjoy economies of scale and are consumed on a massive scale. In India it is becoming increasingly difficult to meet the growing demand for Waste Management Services, fuelled by the growing population and economy. Most Civic bodies are yet to take initiatives to comply with the Municipal Solid Waste (Management and Handling) Rules citing financial constraints. However a number of way out to negate the financial barrier have been proposed in order to ensure sustainable implementation of the MSW management governed by Municipal Solid Waste (Management and Handling) Rules, 2000. Some of the viable proposition includes Private Public Partnership, Funding through JNNURM/ other funds and additional revenue through Clean Development Mechanism (CDM) etc.

Governments and local agencies alone may find difficulty to cope with the growing demand for waste management services as these services are cost intensive. Thus, private investment, as an alternative supplement to government efforts in this sector is increasingly being thought of. This has resulted in modeling Public Private Partnerships (PPP) in providing waste management services to consumers. PPP recognizes that both public and private sectors have certain advantages relative to the other in the performance of specific tasks. By allowing each

[1] Annon (2008) downloaded from http://ec.europa.eu/environment/international_issues/presentations/solid_waste_mgt_india.ppt#2 on 28.3.2008
[2] http://envfor.nic.in/legis/hsm/mswmhr.html

sector to do what it does best, public services and infrastructure can be provided in the most economically efficient manner. PPP introduces private sector capital, brings in expertise and delivers public services. The nature of such partnerships is characterized by the sharing of investment risks, responsibilities and rewards between the public and private partners.

The Jawaharlal Nehru National Urban Renewal Mission (JNNURM) is a project of the central government. Through this project, the central government will fund cities for developing urban infrastructure and services (including SWM). The cities will have to carry out mandated reforms in return. The mission will last for a period of seven years starting December 2005. Similar to JNNURM funds, other funds are also available for development of urban infrastructure, including SWM. Since SWM is increasingly being felt as a priority service, such funds are expected to provide the much needed financial assistance to the urban local bodies in the design and implementation of an efficient SWM system.

Clean Development Mechanism

Clean Development Mechanism (CDM) is one of the three flexibility mechanism under the Kyoto Protocol. This mechanism enables developing countries to assist developed countries in meeting their Green House Gas (GHG) emissions reduction targets. Waste processing projects avoids methane emissions from anaerobic decomposition of MSW in a landfill. Methane is a Green House Gas with high Global Warming Potential (21). Hence waste processing technologies including landfill closure is eligible for CDM. Though the MSW Rules 2000 requires that "biodegradable wastes shall be processed appropriate biological processing", none of the urban local bodies are able to follow this regulation. Current practice in India is simple dumping of waste in open dump sites without any kind of processing or treatment. This proves the additionality of the project through common practice analysis. The waste processing technologies will continue to enjoy CDM benefits until 50% compliance to MSW rules are achieved.

MSW management projects have limited budget and revenue. CDM helps in overcoming technological and financial barriers associated with MSW management projects. Among 17 sectors, waste management is sector no. 13. Currently, there are 10 large scale and 6 small scale approved methodologies in this sector covering CDM benefits for projects of bio mass, waste water, MSW processing and landfill gas capture. This sector is one of the most under utilized sectors. In India, only 11 projects have been registered till date in this sector, out of which almost 50 % are on waste water and only 2 projects are of waste to energy. Globally, there is only 1 registered project on composting[3] (Bangladesh).

Mainstreaming carbon finance

In MSW sector, due to implementation of public private participation (PPP) model, main concern for ULBs is the distribution of CDM benefits between the operator and ULB. Since, the operator is mainly responsible for the execution of the entire project to avoid methane gas production, he should be benefited reasonably. Moreover, ULBs can make use of revenue from CDM benefits to reduce tipping fee to the operators. A standard model needs to be worked out for different categories e.g. composting, waste to energy, landfill closure etc.

[3] http://cdm.unfccc.int/Projects/index.html

The project developers and the Investment agencies still consider the revenue from CDM as additional benefit and it does not influence their investment decision. Since the waste management projects depend heavily on CDM revenue to make the project feasible, there is an immediate need to mainstream CDM revenues in the decision making process. However the CER market is uncertain and the CER price is extremely volatile. Immediate policy decisions are required to address the uncertainty in the market.

There is a need to tighten the association between financing projects under conventional mechanism and carbon finance opportunities. The financial institutions should look for opportunities to link carbon finance to planned lending operation. New lending products that blend carbon finance in eligible projects to accelerate repayment and/or reduce interest payments needs to be considered on a project-by-project basis. Mainstreaming carbon finance into regular financial activities will increase their financial viability of Green House Gas Reduction projects like waste processing.