

Landfill Subcommittee Meeting

Country Report: Ecuador

Status of M2M activities, opportunities, priorities and needs

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Comité Nacional del Clima
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Summary of the solid waste management sector

- Last 25 years, urban population in Ecuador has increased from 3.7 to 7.4 millions
- In the same period of time, waste production has grown from 470 to 650 g/hab/day
- Waste collection coverage at urban areas is 72% and landfilling for final disposal is only 26% in the country
- Excluding the main (largest) cities of Ecuador: Quito (capital), Guayaquil and Cuenca, only 10 cities have controlled system for waste final disposal (sanitary landfills)
- Nevertheless, all these landfills, including main cities, are not recovering or using methane at all



Opportunities

- Annual generation of methane of the three main (largest) cities in Ecuador is estimated in 38.621 tons
- Annual generation of methane of 5 medium-size cities (cities with more than 15.000 hab.) which have controlled landfills for final disposal is estimated in 3.047 tons
- Annual generation of methane (as an average) of 11 medium-size cities with more than 15.000 habitants, which have uncontrolled systems for final disposal is estimated in 7.253 tons. These cities are going to operate landfills in 2009 and have been identified under a Solid Waste Integral Management Program (PIRS) – IADB/ MIDUVI (Ministry of Urban Development and Housing for Ecuador)
- Furthermore, it has been identified 40 cities - more than 15.000 hab – that have uncontrolled systems (no controlled landfills or open dumps) for final disposal.

Preliminary estimations of methane potential has been done using LandGem V 3.02. These estimations are based on the expected operational time of the landfill.

More details about this information you can find at "The CDM in Ecuador: challenges and opportunities" a rapid assessment supported by IADB / Ministry for the Environment in Ecuador.

Priorities

- To develop technical capacity in the municipalities (on issues related to the solid waste management)
- To improve solid waste final disposal management through the transition from uncontrolled systems to landfills (at least 40 cities have been identified)
- To disseminate the using of CDM component as a complementary source of finance (the three main cities in Ecuador are including CDM as a tool for financing methane recovery projects)
- Based of an analysis of the current legal framework, identifying alternatives to create an environment for sound investment on LFG energy projects (currently, the legal framework for alternative energy projects establishes: (1) incentives for non-conventional renewable energy projects: tariff & dispatch preferences; (2) National fund for rural electrification "FERUM")

Some needs...

- Assisting with solid waste management capacity building and technology transfer to Municipalities through demonstration, training, and workshops (identifying synergies with other programs such as PIRS (IADB - MIDUVI) and working closely to MIDUVI and the Ecuadorian Municipal Association.
- Facilitating a transition to landfilling by sharing technical assistance and finance on landfill design and management
- Performing initial gas generation samples and feasibility studies (in the short term 5 cities which have landfills, in the mid term 11 cities identified by PIRS)
- Supporting to set up an enable environment for developing LFG practices and projects.



Open dump site in Ecuador



"Las Iguanas" Landfill Guayaquil, Ecuador

Finally.....

A first Ecuadorian experience on a landfill gas project under CDM



An active flaring methane system at the Zambiza LFG Project Quito, Ecuador

Thank you for your time....

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