



*Presidencia de la República Dominicana*

Consejo Nacional para el Cambio Climático y el  
Mecanismo de Desarrollo Limpio

# Wastewater Treatment Update

## DOMINICAN REPUBLIC

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**GMI Municipal Wastewater Subcommittee Meeting**  
**Singapore, 2-3 July 2012**



# Wastewater Treatment

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- Treatment coverage
- There are about 56 municipal wastewater treatment plants inventoried in the country
- In Santo Domingo (capital) generates 13,680 lps, collecting only 13.8% (1,900 lps)
- From 13.8% collected, only 37%(686 lps) are sent to treatment plants but are not treated appropriately.
- In Santiago city (2<sup>nd</sup> w/most population) generates 4,426 lps; around 90% are collected but only 14% are sent to a treatment system

# Wastewater Treatment

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- Treatment coverage
  - At national level, the treatment coverage is only 35%
  - 65% of wastewater treatment plants are out of service

# Wastewater Treatment

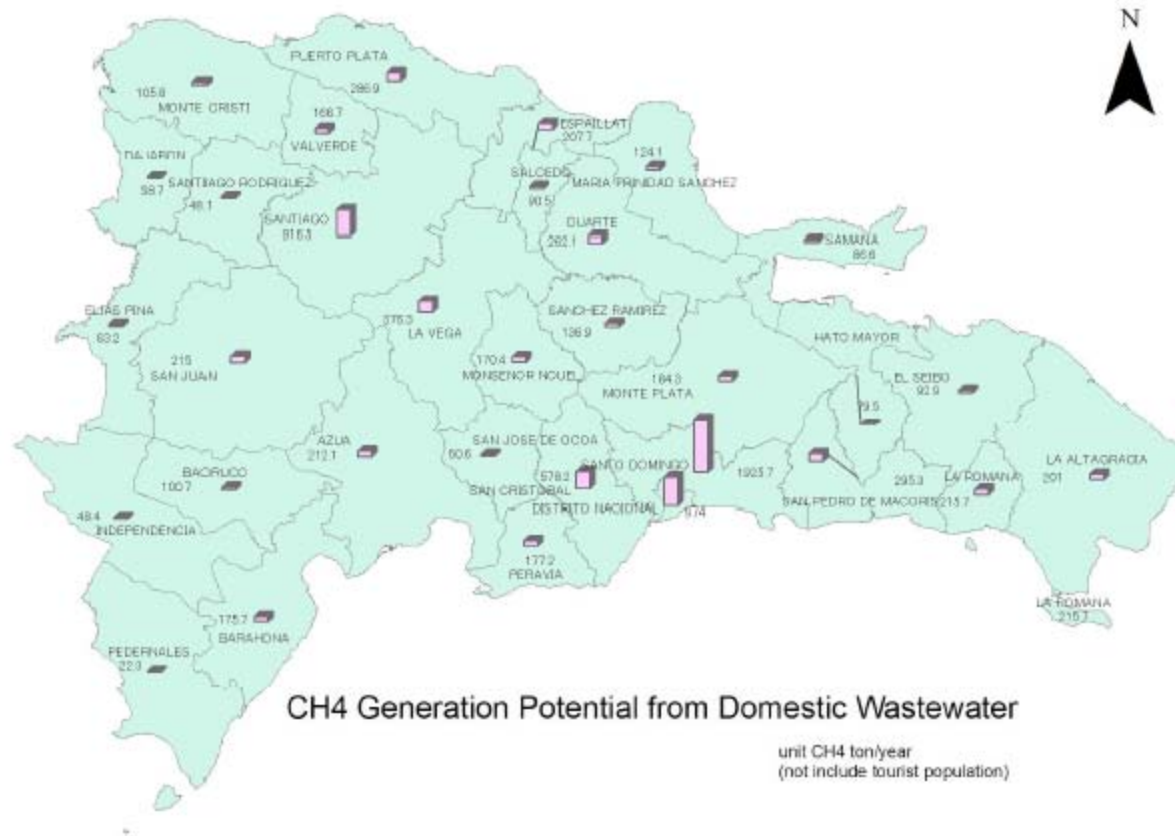


Location of WWTP inventoried

**Source:** Report of Status of Knowledge regarding Municipal Wastewater Treatment – Project IDRC-UNAM 1 05701-001

# Wastewater Treatment

## Potential Methane Generation from Domestic Waste Water



Estimated CH4 Emission Reductions is **8,874 ton/y** or **186,354 ton CO2e per year**

Tourism population is not calculated.



# Wastewater Treatment

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- Goals for future coverage expansion
- The preparation of the 'Sanitary Sewer Master Plan of Santo Domingo' – by the 'Corporation of aqueducts and sewage systems of Santo Domingo -CAASD'
- Follow-up by 'Corporation of aqueducts and sewage systems of Santiago – CORAASAN' to the 'Sanitary Sewer Master Plan of Santiago city' (prepared by JICA in 2002)
- Development plans by 'National Institute of Potable Water and Wastewater – INAPA' to increase sewerage coverage in at least 5 municipalities (including adequate system of treatment)

# Wastewater Treatment

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- Goals for future coverage expansion (projects in portfolio)
- ‘Water and Sanitation Project in Tourist Areas’ supported by the World Bank. The main goal in reducing the economic, social and environmental high costs caused by the improper wastewater and solid wastes handling in the Dominican Republic. (*no implementing yet*)
- (1 pilot project – province of San Juan de la Maguana) Decentralized Management Project of Potable/drinking Water and Sanitary Services . Aims to improve public access to potable/drinking water and sanitary services supported by the Spanish International Cooperation Agency (AECID for its acronym in Spanish) and it will be implemented by INAPA.

# Methane Reduction, Recovery, and Use Initiatives

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- Example of existing methane reduction efforts
- 56 plants wastewater treatment inventoried:
- 19 plants use mechanical aeration (aerobic) system but only,
- 6 plants are operating efficiently (methane reduction)
- 13 plants are operating inefficiently (partial methane reduction)



# Methane Reduction, Recovery, and Use Initiatives

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- Example of recovery and use projects
- All treatment plants with anaerobic (*UASB reactor or combined*) technologies are emitting methane to the atmosphere.

# Barriers/Challenges to Methane Reduction, Recovery, and Use

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- **Technical:**
- Lack of data on emissions produced within the wastewater sector
- Lack on expertise or awareness of recovery and use technologies and practices
- deficiency of the national energy system (long power cuts), due to this, technicians prefer technologies using less equipment and less dependence of electricity.
- weak culture in the country's institutions in relation to wastewater treatment and maintenance of the works; it has caused a collapse of many of the systems

# Barriers/Challenges to Methane Reduction, Recovery, and Use

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- **Policy:**
  - Lack of an appropriate institutional framework that promotes the implementation of policies and strategies for the development of projects.
  - there is no national regulation for the design, construction and operation of sanitary works and installations.
- **Financial:**
  - High costs of recovery and use technologies and lack of access to financing

# Barriers/Challenges to Methane Reduction, Recovery, and Use

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- If any incentives exist these can be include here.
- Incentives under the Law 57-07 on Renewable Sources of Energy and its Special Regimes:
- **Import taxes Exemption (100%):**
- **Equipments:** Power generator using biogas, digesters and scrubber equipment for the production of biogas from agricultural waste biomass even with their purifiers.
- Sell electricity to the national grid (net metering system)



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**THANKS!**

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