



Libertad y Orden

**Ministerio de Ambiente  
y Desarrollo Sostenible**

República de Colombia

# **Colombian Waste NAMA financed by Canada**

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**GMI Municipal Solid Waste Subcommittee Meeting**

A photograph of a vibrant orange and black butterfly perched on a purple passion flower. The background is a lush green, out-of-focus garden setting with other passion flowers and leaves.

**Singapore, July 2, 2012**

## Challenges in the Colombian waste sector

- Low energy prices of the Colombian grid (hydro-power based).
  - Low GHG emission reduction potential (relatively clean energy grid).
- No incentive for use of biogas as a source of renewable energy.
- Waste collection tariffs are charged by amount of waste disposed .
  - No incentives for waste reduction at the source, recycling or reuse.
- Growing informal recycling sector

## Development of NAMAs in Waste Sector (I)

- Supported by Environment Canada, facilitated by Center for Clean Air Policy (CCAP) and in collaboration with the Colombian Ministry of Environment and Sustainable Development of Colombia.
  - Workshop March 6–8, 2012: “Nationally Appropriate Mitigation Action (NAMA), Opportunities to Reduce Methane in Colombia’s Waste Sector”.
  - Stakeholders from waste sector participated (government, private sector, non-governmental organizations and academia).



## Development of NAMAs in Waste Sector (II)

- Colombian priorities for the sector where discussed and established.
- A Steering Committee was created to work with Environment Canada and CCAP in developing *possible* pilot projects in Colombia:
  - ✓ Department of National Planning (DNP)
  - ✓ Superintendence for Household Services (SSPD)
  - ✓ Ministry of Environment and Sustainable Development
    - Climate Change Division
    - Sector and Urban Development Division (Reuse and Recycling group)
  - ✓ Ministry of Housing, City and Territory



## Development of NAMAs in Waste Sector (III)

- **Potential NAMAs identified:**

1. Integrated Municipal Solid Waste Management NAMA (includes organic waste separation, recycling and tariff incentives study).
2. Construction and Demolition Waste C&D (divert construction waste away from landfills through reuse, recycling and/or waste-to-energy processes).

- **Next Steps:**

- City selection for pilot project implementation.
- Phase of studies for each NAMA (Until August 2012).
- Prioritized actions identified for implementation within pilots (September 2012).



## Identified barriers for NAMA development and implementation

- Technological Barrier – MSW not sorted at the source.
- Investment Cost Barriers - High O&M costs compared to dumping in a landfill (usually costs cannot be recovered through sale of compost).
- Regulatory Barriers - Quality of compost depends on quality of “raw material” (most waste in Colombia is mixed at source).
- Technological Barrier - Lack of sorting and transfer facilities.
- A very strong informal sector that depends on recycling for living.
- Due to low electricity prices in Colombia (.033 USD/kWh) there is lack of an economic incentive for biogas-to-electricity projects.

## Selection of Pilot Cities (I)

- Selection Criteria for Integrated Municipal Solid Waste Management NAMA :
  - Amount of waste production.
  - Percentage of organics in the waste stream
  - Time needed for the studies vs. local needs
  - Political willingness
  - Existing disposal site
    - Closed and disposing cells available
  - Landfill operator technical and financial capability
  - Transfer stations and/or recycling facilities close by
  - For extrapolation purposes, it is being considered to select two pilot cities one of which is a big city, so that market for reuse/recycling is considerable from the financial perspective and for sustainability purposes.

## Selection of Pilot Cities (II)

- Selection Criteria for the Construction and Demolition Waste (C&D) NAMA :
  - Amount of C&D waste production.
    - Cities with large construction sector growth
  - Political willingness
  - Presence of informal recycling sector



## Next Steps

- Selection of Pilot Cities
- First stage of studies: including financial factors and co-benefits (until August 2012).
- Priorization of lines of action
- Design of waste sector NAMA
- Implementation of prioritized measures and finance search for complete NAMA implementation.



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