

DAR ES SALAAM CITY COUNCIL

**LAND FILL GAS RECOVERY AND ELECTRICITY
GENERATION AT MTONI DUMPSITE,
DAR ES SALAAM, TANZANIA.
CDM PROJECT**

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Historical Background of Mtoni Dumpsite

- Due to serious land erosion that occurred 1977, residents of Mtoni area made a request to the City Council to reclaim their land by using solid waste materials.
 - The council started disposing waste at Mtoni dumpsite in October 2001 and the dumpsite was officially closed in January 2007. the dumpsite received waste from the three Municipalities of Ilala, Temeke and Kinondoni.
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- An average of 800 - 1200 tones of solid waste materials were disposed of at the site daily (1,800,000 tones of waste accumulated at the site).
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Waste Generation

Waste Storage

Waste Transportation



After closure of a solid waste disposal facility, the authority is legally bound to conduct an assessment of the environmental conditions of the site for corrective measures of its safe closure. Critical issues for consideration are:

- Leachate control and management.
 - Dump/landfill gas capture and management.
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Technical closure of Mtoni Dumpsite

In 2004, the council started planning for the closure of Mtoni Dumpsite.

- In collaboration with Sustainable Cities Initiative, (Canada), the council conducted a pre-feasibility study on leachate management.
 - In 2005, a private firm, Consorzio Stabile Globus from Milan, Italy approached the City Authority for the dumpgas flaring project.
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Initial study conducted and the idea of having a CDM project was agreed.

Developing a Project Design Document (PDD)

- The PDD was developed following the outlined procedures and in consultation with DNA. The contents of the PDD include:
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- General description of the project activity;
 - Application of a baseline methodology.
 - Duration of the project activity/crediting period.
 - Application of a monitoring methodology and plan.
 - Estimation of GHG emissions by sources.
 - Environmental Impacts.
 - Stakeholders comments.
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Annexes:

- Contact information on participants in the project activity.
 - Information regarding public funding.
 - Baseline information.
 - Monitoring plan.
 - PDD submitted to Vice-President's Office, Division of Environment (DNA) and approved on 25th January 2007.
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- Validation – April 2007.
 - Registration Date – 2nd June 2007.
 - Scale of the project – large.
 - Amount of reductions – 202, 271 metric tonnes co₂ equivalent per annum.
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- Host Parties:
 1. Dar es Salaam City Council, Tanzania
Owner of the Dumpsite.
 2. Consorzio Stabile Globus from Milan, Italy.
Partner in the project. (253 projects all over the world and 15 CDM projects in Developing countries).
 - Contract between DCC and CSG signed on 18th July 2007.
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Implementation plan

- Logistics – CSG technical personnel residence and working permits.
 - September 2007 – clay soil covering and borehole drilling (about 55 – 60 boreholes).
 - October 2007 – machines installation and gas pipes connectivity.
 - End December 2007 – plant inspection and certification.
 - Januari 2008 – official inauguration of the plant and start of gas flaring.
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Projects benefits

Social criteria:

- Improve quality of life – water supply, electricity, tarmac road, clean environment.

Economic criteria:

- Provide financial returns to DCC.
 - Transfer of new technology.
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- Training of local personnel. Establishment of a Technical Steering Committee to advise on project implementation & training of local personnel.

Environmental criteria:

- Reduction of GHG emissions – 2,022,711 tonnes of CO₂ over a crediting period.
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- Provide improved environmental conditions (leachate control and management).
 - Reduce health risks – cancer and respiratory problems.
 - Reduce pressure on local environment – covering dumpsite area with clay soil and planting of grass and trees.
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