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Urban Waste to Energy: Feasibility Study

Contact:

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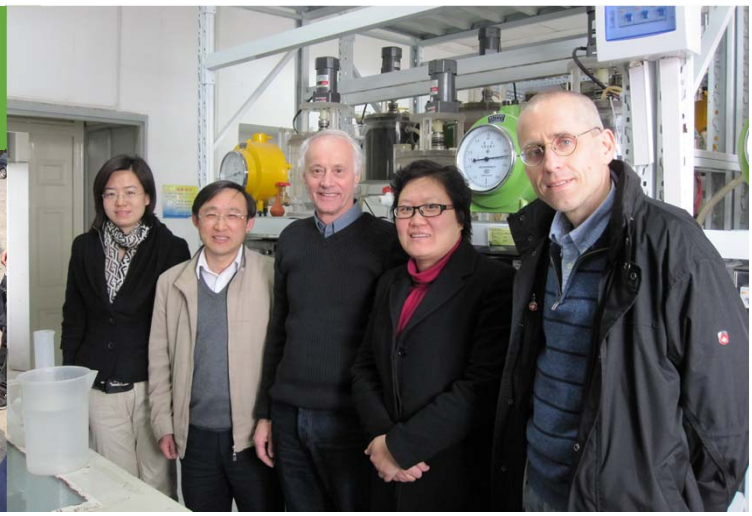
Abstract:

Main Objectives

1. Conduct a feasibility study in Chengdu City of Sichuan Province (China), to proof that fermentation of the organic fraction of municipal solid waste (OFMSW) is a suitable technology for urban areas in China, to upgrade and recycle organic waste, produce energy for its citizen and to demonstrate good examples in other areas of the world.
2. Create confidence in the technology that will serve as basis for the subsequent planning process. It will attract and motivate investors to commit their financial resources towards this.
3. The results of this study will help ADRA and our local partners to meet with all the decision makers in the region (at all levels) and work out a strategic implementation plan with the Government of Chengdu City.

Main Challenges

- Proper waste separation (dry and wet) at source
- Stakeholder management and coordination of decision makers
- Availability of domestic components according specification



Conclusions:

Main Results and Lessons

- All necessary contacts to Universities, Ministries, Institutions and Municipality established; representatives during all the meetings indicated great interest and openness to collaborate in a demonstration pilot plant.
- Access was given to visit all the stations of the municipal waste chain.
- Groundwork (analysis of waste to be treated, needed information collected, component supply research) complete to search for potential investors.
- During the feasibility study, the comprehensive stakeholder analysis needs to be revised and new stakeholders added. Flexibility is needed to improve the dialog and adjust networking.
- The fast growing cities demand for more landfill space which is every year less available.

Major Success Factors

- Government policies in environmental protection and promotion of renewable energies are promoted.
- Fast increasing amount of waste production in urbanized areas.
- Highly motivated government officials at all levels.
- Reduction of waste treatment cost and environmental protection simultaneously.

Outlook / Impacts:

Expected Main Impacts and Further Developments

- The study was successfully completed and serves as the basis for an investment appraisal and investor meetings at government/private level (project 2nd phase planned after July 2013).
- Detailed technical planning and implementation of pilot demonstration plant.
- Implement waste separation campaign and training among targeted communities to improve waste quality.