

SECTION A. Description of project activity

A.1. Purpose and general description of project activity

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Brief summary of the project

The objective of the project is to avoid methane emission through processing of municipal solid waste in compost plants located in three different states of India (Punjab, Kerala and Karnataka). The project involves adopting method for aerobic decomposition of biodegradable component of Municipal Solid Waste (MSW). The compost plants would have an aggregated capacity to process 600 tonnes per day (TPD) of waste: 219 Kilotons of waste/year. These plants are disseminated in the following cities:

1. Jalandhar, Punjab¹ – 200TPD
2. Kozhikode, Kerala – 150TPD
3. Mysore, Karnataka – 250TPD

Purpose of the project activity

Scenario existing prior to the start of the implementation of the project activity

Currently, the local body of each Municipal Corporation collects the municipal solid waste and disposes it in the existing Solid Waste Disposal Sites (SWDS) managed by respective Municipal Corporations. This causes a number of environmental & health hazards including unabated release of methane in the atmosphere.

Thus, the common practice is disposal of solid waste without any measures to avoid methane emissions (**also the baseline scenario as described in detail in section B.4**).

Project scenario

In the project scenario, Jalandhar site has been excluded from the registered CDM project activity from 01/01/2014 onwards. This change is permanent in nature and the effective input capacity is revised from 600TPD to 400TPD. Hence, the emission reduction has been calculated excluding Jalandhar site from 2014 onwards. Since, the emission reductions have been claimed from Jalandhar site for the period 27/06/2010 to 31/12/2013; therefore, Jalandhar site is still retained in the current version of CDM-PDD-FORM. The compost plants use controlled aerobic decomposition in a windrow composting process. The process of composting would result in the production of compost that will be supplied to the local agriculture farms.

IEISL (previously, IWMUSL) has taken up the initiative of development of the project along with encouraging marketing of the compost produced from the plants and availing CDM benefits. Hence the project will provide an example for an environment friendly and economically viable MSW processing.

Contribution to reduction in GHG emissions by the proposed project activity

Project activity leads to reduction in GHG emissions by avoiding methane emissions from anaerobic decomposition in a solid waste disposal site (SWDS) through controlled aerobic decomposition in a windrow composting process.

Contribution to sustainable development by the project activity

Environmental Benefits:

Composting of Municipal Solid Waste is an attractive option for:

1. Resource recovery and environmental improvement: Local benefits would be the recycling of resources, and better management of solid waste. Open disposal of given waste is prevented resulting in reduction in land requirement for waste disposal, leading to improved environmental conditions and a replicable model.
2. In contrast to the anaerobic decay of biodegradable waste that occurs in the SWDS, which results in methane generation among other landfill gases, the composting project will contribute to mitigation of greenhouse gas (GHG) emissions through aerobic decomposition of the organic waste.

¹ From 01/01/2014, Jalandhar site has been excluded from the registered CDM project activity; however the registered CDM project activity has already claimed emission reductions from 27/06/2010 to 31/12/2013 (both days included) for Jalandhar site. Hence, Jalandhar site is still discussed in the current version of CDM-PDD-FORM.

- The end product of the project activity is compost that will be used as organic manure and combat soil degradation, since its application will lead to recycling humus, the organic matter, back to soil thus improving soil productivity.

Social and Economic Benefits:

- Employment generation: The three plants are expected to provide direct employment in the composting facilities (since the plants are semi-mechanized) as well as indirect employments during supply of compost to farmers.
- Compost as a means of a resource: This project will suitably assist in providing compost supply for urban agriculture, horticulture, floriculture, vegetable production and crop farming in and around the neighbouring states.
- Improving economic viability of the project: Since the cost of production of compost will be subsidised using revenue from carbon credits, marketing of compost will become easier, thus ensuring the sustainability of the project.

Consistency with sustainable development policies of the host country:

The 'Municipal Solid Waste, Management and Handling, Rules, 2000² (with an implementation schedule in 2003) recommends the pre-treatment of wastes prior to land filling. The increased need for professional waste management has made solid waste management a top priority for most urban local bodies. This project will serve as a model of financially sustainable waste management project. Appropriate waste management is gaining priority of the Government. The Government of India is also supporting balanced nutrient management for agricultural soil in order to ensure that the productivity of agricultural land does not keep declining due to over use of chemical fertilizers³.

The project will also contribute towards achieving sustainable waste management in the cities. The design and operation of this project, in conjunction with the avoidance of methane emissions and production of compost as a soil amendment, will serve as an example to many other urban areas in the country that are facing similar waste management challenges.

A.2. Location of project activity

A.2.1. Host Party

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India

A.2.2. Region/State/Province etc.

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Three plants located in the states of Punjab, Kerala & Karnataka

A.2.3. City/Town/Community etc.

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Punjab : Jalandhar,
Kerala : Kozhikode and
Karnataka : Mysore

A.2.4. Physical/Geographical location

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	Jalandhar⁴	Kozhikode	Mysore
Location	Disposal site: Wariana, Basti Bawa Khel in Jalandhar near subsidiary Health Centre	Disposal site: Njeliyanparamba	Disposal site: Vidyananyapuram
	Geographical Location 31° 20' 56" N 75° 31' 52" E	Geographical Location 11° 12' 16" N 75° 49' 01" E	Geographical Location 12° 16' 20" N 76° 39' 01" E

² <http://envfor.nic.in/legis/hsm/mswmhr.html>

³ Waste to Wealth- A report by Inter Ministerial Task Force on Integrated Plant Nutrient Management, May 2005, constituted by Ministry of Urban Development, Govt. of India

⁴ Jalandhar site has been excluded from the registered CDM project activity from 01/01/2014 onwards. The emission reductions have been claimed from Jalandhar site from 27/06/2010 to 31/12/2013 (both days included). Hence, Jalandhar site is still discussed in this section of CDM-PDD-FORM.