From Waste to Organic Fertiliser

This farmer harvested this massive radish on his farm. He has been using the organic compost from the project. He won a local vegetable competition with this radish.

The main objective of the project is to process organic waste into compost, reducing methane emissions otherwise caused in traditional landfills. In this way, greenhouse gas emissions from traditional landfills are reduced and high-value compost is being produced.

Waste is a major problem in Kathmandu, and organic waste amounts to almost 70 per cent of the total waste. To solve this problem, Biocomp Nepal has been created. In March 2011, a pilot project started with a composting facility in the surroundings of Kathmandu. The plant collects waste from vegetable markets producing compost through aerobic degradation and at the same time reducing methane emissions. During the pilot, in total 140 tonnes of fresh organic waste from local markets were collected (2 to 3 tonnes per day) and 15 tonnes of high quality compost was produced. The compost meets international quality standards regarding nutrient content. In addition, the Biocomp plant has created 30 permanent jobs for local people.

Project type:
Waste Management and Compost

Project location:
Kathmandu, Nepal

Project status:
In operation, credits available

Annual CO₂ reduction:
2,949 t

Situation without project
Methane emissions from landfill

Contribution to the SDGs

Project standard
Gold Standard
VER

Awards

Impressions

"I am proud to work here because it is for a cleaner Kathmandu." Haridevi Maharjan,
Based on this success, the up-scaling process has begun. The new project site for larger capacities has been contracted and the construction of further composting facilities started in January 2013. As waste is a major problem in many cities of developing countries, the project can potentially be replicated in different places in Nepal or elsewhere.

Since the project started 11,000 tonnes of organic waste have been collected and prevented from being dumped in the landfill. This organic waste was used to produce 1,000 tonnes of compost of which 250 tonnes have been sold to local farmers.

Maarten Gniirrep, Plant Manager, Biocomp

The beneficiary community of the project is, on the one hand, the entire population in and around Kathmandu, since the waste problem is alleviated by the reduction of the amount of waste processed in traditional landfills. On the other hand, farmers profit from the produced compost that they can use for their crops. The switch from chemical fertilizers to compost means a more sustainable way of treating the fields. Fertilizers from organic waste have a positive effect on soil and food quality and therefore benefit the farmers as well as the consumers. Available and affordable natural fertilizer such as compost therefore fulfills an existing need. By closing the loop of organic nutrients, Biocomp promotes sustainable agriculture. The site particularly provides jobs for women discriminated by their families and therewith contributes to gender equality.

Biocomp’s revenue comes from compost sales and from carbon credits. Because the latter would contribute to the revenue only from 2013 on, myclimate made upfront payments, which allowed Biocomp to finance the initial investment.

Project on the UNFCCC page
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Impacts and benefits achieved:

- 28,890 tonnes of organic waste have been collected
- 2,271 tonnes of compost produced
- 1,300 tonnes of bio fertilizer have been sold to local farmers in 47 districts of Nepal
- 43 jobs have been created