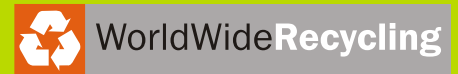


# Recycling Training Center



Designed & Implemented by **Waste Concern**  
Supported by **MoEF & UNDP** under **SEMP**  
Collaborating Partner **World Wide Recycling b.v.** of the Netherlands



To promote the idea of 'converting waste into resource', the Recycling Training Center (RTC) was established by Waste Concern, under the Sustainable Environment Management Program (SEMP) which was implemented by the Ministry of Environment and Forest (MoEF) of the Government of Bangladesh with the support from UNDP in the year 2006. At present Waste Concern in collaboration with World Wide Recycling (WWR) b.v., of the Netherlands establishing a monitoring system for composting linked with Carbon Emission Reduction in this center.

## main goals

- To promote the concept of 3R (Reduce, Reuse & Recycling) principles.
- To demonstrate 'Efficient Technology' and provide 'Hands-on Training' on -
  - Organic waste recycling
  - Rain water harvesting
  - Waste water recycling
  - Solar power generation &
  - Eco-sanitaion (Compost Toilet)
- To introduce a small scale Clean Development Mechanism (CDM) model.

## work process





Waste transported in covered truck



Aerobic composting



Temperature monitoring



Methane & oxygen monitoring



Forced aeration system



Rain water harvesting system



Leachate treatment tank

## Tangible Social & Environmental Return in Economic Terms from RTC Project

Items	Details	Summary
Total Investment (Excluding Land Value)	Tk. 45,70,256 (US \$ 65,665)	Tk. 45,70,256 (US \$ 65,665)
Total Beneficiaries	20,000 person	20,000 person
Investment Per Beneficiary	US\$ 65,665/20,000 person= US \$ 3.28	US \$ 3.28
Compost Produced from the Collected Waste	766.5 tons/year	766.5 tons/year
Compost Produced by Each Beneficiary	766500 kg/20,000 = 38.33 kg/year	38.33 kg/year
Value of compost produced per beneficiary	38.33kg @ Tk. 4.5/kg=Tk172.5 = US \$ 2.48	US \$ 2.48 per year
By composting 2555 tons of organic waste per year, Green House Gas reduced (carbon dioxide equivalent)	1277.5 tons or 1277500 kg of CO2e/year	1277.5 tons of CO2e/year
Green House Gas (GHG) Reduced by Each Beneficiary	1277500 /20,000 = 63.88 kg of CO2e/year	63.88 kg of CO2e/year
Value of Green House Gas Reduction	As per Current Carbon Price @ US \$ 15/ton = US \$ 0.96/year/beneficiary	US \$ 0.96/year/beneficiary
Amount of waste managed by this project	DCC Expenditure to manage per ton of waste is Tk. 1949. This project is managing 2555 tons of waste per year.	2555 tons/year
Saving of Dhaka City Corporation (DCC) Expenditure	Per year expenditure saved by this project is Tk. 1949/tons X 2555 tons = Tk. 49,79,695	Tk. 49,79,695 per year
Saving of DCC Expenditure Per Beneficiary	Tk. 49,79,695/20000 = Tk. 249/year or US \$ 3.58 /beneficiary/year	Tk. 249/year or US \$ 3.58 /beneficiary/year

### Total tangible benefits

Considering the life of this project of 15 years,  
By investing US \$ 1 per beneficiary, we are getting environmental & social benefit worth US \$ 32.1 (US \$ 105.3/US \$ 3.28). Note US \$ 1 = Tk. 69.60



Screening of compost



Roof top solar panel



Training session

Total benefits per beneficiary per year <b>US \$ 7.02</b>	=	Value of Compost <b>US\$ 2.48</b>	+	Value of GHG reduced <b>US\$ 0.96</b>	+	Saving of DCC expenditure <b>US\$ 3.58</b>
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## key features

- Treating 2555 tons of solid waste per year
- Producing 766.5 tons of compost per year
- Reducing 1277.5 tons of CO2e/year
- Serving 20,000 people
- Saving DCC expenditure of Tk. 4,979,184 per year
- Saving 2810 cubic meter of scarce land area per year by avoiding dumping of waste
- Harvesting 584 m<sup>3</sup> of rainwater per year
- Recycling 438 m<sup>3</sup> leachate water per year
- Eco-toilet recycling 5.4 tons human excreta per year
- Providing employment for the urban poor : 16 persons
- Generating 1095 kwh solar power per year