

Dhaka, Bangladesh

Waste concern pilot project: “cash for trash”

The Waste Concern project is a community-based approach to managing solid wastes in a dense and fast-growing metropolis through composting. The initiative proves beneficial to both the urban environment and the livelihoods of waste pickers.

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The project in brief

The metropolis of Dhaka currently produces 4,600 tons of solid waste per day, 80% of which is organic (Waste Concern, 2009). The absence of an efficient waste management on behalf of the City, has given way to waste picking as a source of income for many poor households and especially women. However, most of the picking earnings ultimately go towards medical expenses to treat illnesses due to continuous exposure to unsanitary conditions, both on landfill sites and inside the slums. Moreover, intensive use of chemical fertilizers during the Green Revolution of the '70s has threatened arable lands and their farmers, food availability and affordability for the urban poor.

The Waste Concern (WC) Pilot Project acts as a NEXUS between previously siloed elements: a decentralized composting unit in a neighbourhood provides a source of income for slum dwellers, reduces risks associated with poor sanitation and climate change, and produces low-cost bio-fertilizers for farmers, thereby contributing to food security and resource efficiency.

What makes it "Urban NEXUS"?

The Waste Concern, an NGO established in 1995, set up its first compost plant in the Mirpur neighborhood by engaging institutional Urban NEXUS stakeholders, including slum dwellers, waste pickers, households and farmers, to improve living conditions while providing employment and economic development. Awareness campaigns resulted in significant behavioral changes, and the door-to-door collection, marketing and sale of compost and organic fertilizer supports local business opportunities. The project has proved self-sustainable at the neighborhood scale, through fostering synergies between urban and peri-urban communities. Recognizing the importance of this initiative, in 2000, the WC and Dhohpur signed the first ever private-municipal partnership for waste management in Dhaka, reflecting the efficiency of the re-integration process. The “cash for trash” project presents a highly feasible technological alternative compared to the costly infrastructures previously considered by the City, such as waste-to-energy facilities, which would not have improved poor communities’ livelihoods in a comparable way, nor benefited from cascading organic wastes as an input to the agricultural sector.



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Date	1995-ongoing
NEXUS Sectors	Waste- Agriculture- Economy-Social
NEXUS Innovations	Design + Technology; Institutions; Communications + User Behavior
Scale	City-wide
Budget	US\$4180/year

Urban NEXUS Definition

The Urban NEXUS is an approach to the design of sustainable urban development solutions. The approach guides stakeholders to identify and pursue possible synergies between sectors, jurisdictions, and technical domains, so as to increase institutional performance, optimize resource management, and service quality.

It counters traditional sectoral thinking, trade-offs, and divided responsibilities that often result in poorly coordinated investments, increased costs, and underutilized infrastructures and facilities. The ultimate goal of the Urban NEXUS approach is to accelerate access to services, and to increase service quality and the quality of life within our planetary boundaries.

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Further Reading

Waste Concern official website: <http://www.wasteconcern.org/>

Enayetullah, I. and Maqsood, S., 1999, Community based decentralized composting. Experience of waste concern in Dhaka, All India Institute of Local Self Government: <http://www.wasteconcern.org/Publication/Urban%20Innovation.pdf> (20 Aug 2014)

Waste Concern, 2009, Waste Data Base of Bangladesh, 2009: http://www.wasteconcern.org/documents/Waste%20Data%20Base_2009.pdf

Habibur Rahman M., 2011: Waste concern: A decentralized community-based composting through public-private-community partnership, UNDP, 2011 http://growinginclusivemarkets.com/media/cases/Bangladesh_WasteConcern_2011.pdf

GIZ and ICLEI, 2014, Operationalizing the Urban NEXUS: towards resource efficient and integrated cities and metropolitan regions, GIZ Study: www.iclei.org/urbanexus

Scope for improvement

For now, WC has been acting as a “broker” for inter-departmental cooperation, in the hope that further integration will take place. Institutions at various levels have become involved, from local municipalities to international organizations, and the profitability and sustainability of the composting plants attract private businesses. However, it was only after the pilot project's success was internationally praised, that the authorities stepped in to provide land and basic infrastructure required for scaling up. Although the government promotes the use of organic fertilizer, it is not involved in its marketization, nor does it include waste collectors in the tax system, both could be harnessed to expand the program.

Replication

This simple and easily replicable technology considerably improved the living conditions of poor, marginalized communities. The initial project was scaled up in 1998 when the Sustainable Environment Management Program (initiated by the Ministry of Forests and Environment together with UNDP) commissioned the WC to replicate the project in five other communities of Dhaka. By 2006, there were more than 47 composting plants of all sizes throughout Bangladesh, and ongoing projects in six other countries. In 2008, a joint venture with WWC Bio Fertilizer Bangladesh Ltd. (a Dutch company) led to the establishment of the first large-scale 150 ton capacity, carbon-traded, composting plant in Bulta, Greater Jakarta, generating revenues from issuance of Certified Emission Reductions (CERs) from the UNFCCC.

Acknowledgements

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