

## TRASH TO CASH - SLUM DWELLERS MAKE MONEY FROM CUTTING GREENHOUSE GASES



Company: Waste Concern  
Location: Dhaka, Bangladesh  
Sector: Waste  
Website: [www.wasteconcern.org](http://www.wasteconcern.org)

There is no shortage of rubbish in Dhaka, Bangladesh. One of the world's mega-cities, it cannot afford to deal with almost 3,500 tons of trash that pile up and rot on the street each day, stinking, creating a health hazard, and releasing potent greenhouse gases. This bothered two young urban planners, who have devised a solution that is turning that trash into cash, giving sought-after jobs to some of the city's poorest people and providing valuable compost for the country's farmers.

### **The rise of the garbiologists**

Iftekhhar Enayetulah and A. H. Md. Maqsood Sinha formed Waste Concern in 1994, starting out with small scale projects to get residents – often slum dwellers – to compost their waste. At first they were teased and called the 'garbage men' – they say they prefer being called 'garbiologists'. Now they are being feted as pioneers whose ideas are being exported around Asia and the world, singled out by Bill Clinton and Kofi Annan for their success in tackling climate change and improving the lives of the urban poor.

They have also attracted €12million of international investment and are now seeing their scheme go big. In two years they expect to be dealing with 700 tons of the city's 3,500 tons of daily waste and will be employing 800 people. In November 2008, the first of four new large-scale waste composting plants opened in Bulta south-east of the city. It sounds like success, but it has been hard work to win the sceptics over.

The philosophy is simple: waste is too valuable to throw away and it can be turned into something farmers will pay for. Mr Maqsood says: "A country like Bangladesh cannot afford to look at waste as a problem; it must be a resource, and we believe it is very easy

for Bangladeshis to do this. Our culture says we don't throw things away easily".

The scale is so daunting, it is hard to imagine how Waste Concern thought they could make a difference. The city has at least 10 million people, half of them below the poverty line. Rubbish is left uncollected on roadsides and in open drains. The population is expanding rapidly as people migrate from the countryside and the cost of dealing with refuse is soaring. Poverty means litter pickers were already savaging the waste tips looking for glass and plastic, but leaving behind tons of stinking, de-composing organic matter. This is not only unhealthy, it also gives off methane, a greenhouse gas that has a global warming potential 23 times more damaging than carbon dioxide.

### **Winning over the community**

When the two men from Waste Concern approached the city's bureaucrats, they were unimpressed; they were more interested in a big solution and a community-based composting scheme seemed too small. The initial response was not encouraging.

Mr Maqsood said: "They laughed at us – especially as we were academics. They said, 'if it's so good, why not do it by yourselves?'. Well, that was a turning point – we decided to take up the challenge."

So Waste Concern had to work alone, and the first people they had to convince were the slum dwellers. Mr Iftekhar explains: "It would be utterly naïve to advise slum dwellers on waste disposal when even their basic food needs are hard to come by. We had to develop a system that would create income opportunities."

They did it by setting up a pilot composting centre in Mirpur to the north-west of the city, where families could turn their waste into compost they could sell to Waste Concern. For every ton they make, Waste Concern pays about \$75.

Later they launched a fleet of rickshaw vans taking waste to the collection centres from households that pay a small fee to have their overflowing bins emptied. Each rickshaw means another job created for its driver. Soon, Waste Concern was giving formal employment to those litter pickers.

It takes 40 days to turn the rubbish into compost. After another 15 days, it is graded and packed into 50kg bags. In Bangladesh there is a ready and growing market for the fertiliser: years of agro-chemical use has stripped much of the land of organic matter, with little soil remaining after years of intensive farming. It fetches a good price – up to four times what it would get in Europe.

### **Carbon trading boost**

The scheme was a hit. People had been unhappy with the lack of rubbish collection and now they had a solution that earned them money. Because the method chosen did not create smells, there was no problem with having the scheme near homes. By 1998 the government asked the company to run five other schemes in Dhaka. Eventually the schemes are handed over to the community, with monitoring from Waste Concern.

The project was impressive, but five plants handling 20 tons a day was hardly going to make a dent in the city's huge rubbish heap or do much to cut greenhouse gases. Money from carbon trading is transforming all that. A Dutch company and two Dutch banks are investing €12m to build new big scale plants that will tackle 700 tons of rubbish a day, saving 89,000 tons of greenhouse gas a year – equivalent to the annual greenhouse gas output of more than 300,000 cars. The methodology developed by them is approved by the United Nations Framework Convention on Climate Change (UNFCCC) under the Clean Development Mechanism – a scheme that allows businesses to get credit for funding carbon reductions around the world.

The first plant at Bulta has just opened, handling 130 tons a day, and three more are planned. Waste Concern is remaining firmly low-tech so it can employ more people who will get free meals, health insurance and a good salary. More than half of the workers are women, coming from what is termed the 'informal sector' where they had no rights or benefits. Day care is being provided and the aim is to set a high standard for employment in the sector, ensuring that money from carbon trading gets right down to benefit the poor.

Mr Maqsood is optimistic about the future. Delegations from Vietnam and Sri Lanka have joined others from across Africa and the Asia-Pacific region to see if the system can be replicated in their countries.

"This is different from schemes where improvements are mainly found from reducing energy consumption. We're improving lives, creating good jobs, improving the soil which is giving higher yield and dealing with a real problem, the waste of a mega-city, without charging the government or the tax payer a cent. We have a model that can be scaled up across the region."

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