

# Intelligence Bulletin

## Environment and Sustainability Cluster



### Waterway and River Pollution in Dhaka

August 23, 2007

Urban rivers and waterways in Dhaka suffer from poor water quality levels. A recent study selected five rivers in and around Dhaka – Turag, Balu, Shitalakkha, Buriganga and part of Dhaleshwari. The study selected twenty sites on the five rivers and tested for turbidity, foam, colour, odour, suspended solids, waste dumping and oxygen reduction. The study also looked at species richness and diversity and how well these species adapt to high pollution levels.

The river water was graded with five ratings ranging from Class I – ‘none to very slight organic pollution’ through to Class V – ‘very heavy to extreme pollution’; most locations were graded between Class III and Class V. Buriganga River was graded very heavy to extreme pollu-

tion. The causes of this extreme pollution were identified as industrial waste, including a tannery along the banks, as well as untreated sewage disposal from the city. Industrial waste was also identified as the major source of pollutants in the four other rivers.

The extreme levels of pollution in the rivers around Dhaka render the water extremely unsuitable for consumption.

It is imperative that regulatory bodies such as the Ministry of Forest and Environment, the Department of Environment and the Bangladesh Inland Water Transport Authority ensure pollution discharges are monitored and any penalties enforced for exceeding acceptable pollution standards. A regular water

monitoring programme to establish base levels of pollutants and then work towards improving those levels needs to be undertaken to improve the river water quality in Dhaka.

Coincidentally, the *Bangladesh Observer* (21/8/07), had a front page photograph showing overflowing sewerage water at Toyanbee Circular Road which was reported to the authorities however there had been no follow-up action to halt the flow.

#### Issue 2

##### Upcoming Event:

Policy Dialogue on the Convention of Biological Diversity to be held on 8th September.

##### Inside this Issue:

- Waterway and River Pollution;
- Fertilizer shortages, erosion & health; and
- Forestry Carbon Offsets.



View over Gulshan Lake and dwellings

### Fertilizer and the Environment

Farmers who have had to contend with flooding, crop destruction and now the erosion which is brought about by receding water levels and fast flowing rivers are now concerned about receiving an adequate supply of fertilizer for their crops. The environmental factors of flooding and erosion are both limiting the amount of arable land available for farming and farmers are facing growing concerns that their crops will fail. Fertilizer is viewed as a measure to try to reverse some of this damage however fertilizer brings its

## Fertilizer (cont)...

Its own trail of adverse environmental effects. The build up of chemicals (persistent organic pollutants) in both plants and the soil through the indiscriminate use of fertilizer can mean that the food-chain becomes toxic. The overuse of fertilizers can lead to health problems such as cancer and blood poisoning.

The fragile state of soils, especially along riverbanks, which are being eroded at drastic rates, ensures that any fertilizer which has been used and is in the soil is now readily able



Rain over Rice Fields

to enter the waterways and subsequently the aquatic foodchain moving through all elements of the chain importantly including fish. As much makes up an important part of many Bengali's diets the overuse of fertilizer can have drastic impacts on the health of species throughout all levels of the food-chain.

Fertilizer is an important aid to effective farming however overuse can have severe consequences for crops, native flora and fauna, as well as humans.

## Forestry & Carbon Financing

Carbon offsets from forestry have the potential to become another source of income for rural communities. For the communities to be able to capture the funds from carbon offsetting, the Government must provide a clear, practical and enforceable framework. The benefits must be clearly visible to the local communities and they must not be hampered by overly complex rules or regulations. If the benefits are not explained and are obvious to the community then they will have very little incentive to protect the forest. Protecting the forest will not only enable the local community to derive direct economic benefits from Carbon offsetting projects but will also allow the wider global community to benefit from carbon emission converting sinks and simultaneously help reduce biodiversity loss, thus linking the actions of local communities to global efforts such as the Kyoto Protocol.

If Carbon offsetting Projects are clearly structured and explained the Government may witness a slow reversal to the

**Carbon Offsets from Forestry Projects have the ability to offer rural communities an alternate income stream,**

widespread deforestation which is rapidly occurring around the country. Carbon offsetting may therefore bring a number of benefits at a multitude of levels. The UNDP office is currently working on Shamol Bangladesh: Greening Initiative for Sustainable Livelihood of Rural Poor and Biodiversity Conservation.



Rainforest near Srimongol