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## Bangladesh: losing mangroves to shrimp farming leads to food loss and environmental insecurity

Industrial shrimp farming has been a major cause of mangrove wetlands destruction in Bangladesh –some 45%- and has led to biodiversity loss as well as to the loss of livelihood for millions of people who have depended on mangroves.

In the 90's, the World Bank promoted and supported shrimp aquaculture as part of the drive for export-led policies. An article by A. K. M Enayet Kabir (1) assesses that "In the name of earning foreign exchange, many people are now associated with shrimp cultivation, which has covered a vast area of the coastal districts of Bangladesh since the 1980s."

And he wonders: "We have hardly assessed as to where the valuable forex goes and who are the beneficiaries? The forex earned at the cost of local people's health and adverse effects on our Sunderbans is not benefiting the people."

In a country which has the highest level of malnutrition in the Asia-Pacific region affecting 70-80% of children with a very high infant mortality rate, subsistence fishing could be a resource to alleviate this problem. However, shrimp cultivation has polluted the environment in and around the Sunderbans, undermining the very basis of shrimp culture by disturbing the natural nutrient cycle.

Loss of mangroves have also led to loss of protection regarding cyclones. A study by J. Martinez-Alier et al.(2) comments that "Television reports of flooding and loss of life in Bangladesh are not uncommon in Northern homes, but the connection to destroyed mangroves, abandoned shrimp farms, and decreased coastal defence against cyclones is not often made. Deforestation has left the area highly vulnerable to sea water intrusion when cyclones strike. Thus, the lack of food security because of the enclosure of the mangroves in order to produce a luxury export product such as shrimps is compounded by environmental insecurity."

A research carried out by India's University of Delhi and Duke University in the United States studied storm-related deaths from the massive cyclone that in 1999 wiped out entire villages in the eastern coast of India. The study (3) found that villages shielded from the storm surge by mangrove forests experienced significantly fewer deaths than did less-protected villages.

The research findings were made public in April this year, just a month before cyclone Aila killed some 90 people in the south-western districts of Bangladesh and flooded about 40 per cent of the shrimp farms in the Khulna region in May 26. (4)

Tragically, replacing mangroves for cash earning shrimp production has now led people into bankruptcy and left them with no protection nor food.

(1) "Ecological impact has to be assessed", A. K. M Enayet Kabir, [http://www.ecologyasia.com/news-archives/2002/may-02/independent-bangladesh\\_280502.htm](http://www.ecologyasia.com/news-archives/2002/may-02/independent-bangladesh_280502.htm)

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(2) "The Environmentalism of the Poor", J. Martinez-

Alier, UK, <http://www.wrm.org.uy/actors/WSSD/alier.pdf>

(3) "Mangrove Forests Save Lives In Storms, Study Of 1999 Super Cyclone Finds", ScienceDaily, April 21, 2009, <http://www.sciencedaily.com/releases/2009/04/090414172924.htm>

(4) "Blow to shrimp cultivation", The

New Nation, <http://nation.ittefaq.com/issues/2009/06/22/news0737.htm>