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Report

Murky waters

The environmental and social impacts of
shrimp farming in Bangladesh

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Hanna Wolf

Preface

In 2011, people want to eat food from all over the world. Many go to Thailand for their vacations, and want to eat the same prawn soup when they come back home. The fact that many imported goods that are consumed in Sweden are produced at a high cost for people and the environment in other countries, far away from the tourist destinations, is easily forgotten. And where regulation is weak, demand is a major determinant of the conditions under which the goods are produced.

The production of tropical shrimp – often marketed as scampi, giant shrimp, gambas or tiger prawns – is neither environmentally or socially sustainable. Shrimp can be caught in the wild, or farmed. Shrimp fishing is highly unselective. Amongst all fisheries, trawling for shrimp generates the highest proportion of by-catches – the unintended capture of numerous other species of marine organisms.

Shrimp farms are typically established in artificial dams in mangrove ecosystems or on flooded agricultural land. Intensive and semi-intensive farming requires the regular application of feed, antibiotics and other chemicals. So called extensive farming in naturally flooded areas require less input yet occupy larger areas of mangrove ecosystem or agricultural land. Studies have shown that the value of the ecosystem services that are lost as a result of shrimp farming – such as biodiversity, protection against storms and erosion, carbon storage that mitigates climate change – greatly exceed the value of the shrimp that is produced. Scientists and civil society organisations have also documented environmental crimes and severe human rights violations related to the shrimp industry.

For many years already, the Swedish Society for Nature Conservation (SSNC) has advised against Swedish imports, marketing and consumption of tropical shrimp. Through its extensive international networks, SSNC has regular access to information from scientists, and organisations in the countries where the prawns are produced.

This report presents the results of a recent investigation of shrimp farming in Bangladesh. The findings are alarming. Shrimp farming in Bangladesh is evidently unsustainable and conflicts of resource use with local communities are commonplace. SSNC provides assistance to environmental organisations that restore mangroves and extend support to affected coastal communities in shrimp producing countries. Our partners propose and bring into play environmental legislation while shaping public opinion against unsustainable shrimp production. But unless retailers and consumers actively opt out prawns, efforts in production countries remain insufficient.

We call on all Swedish consumers, importers, shops and restaurants to stop consuming, buying, selling and marketing tropical shrimp. Shrimp for which there is no demand will not be farmed. Where no shrimp are farmed, mangrove ecosystems and paddy fields can be restored. Abstaining from the prawn on the sushi plate contributes to preserving biodiversity and strengthening the rights of communities to livelihoods and decent lives.



Swedish Society for Nature Conservation, September 2011



Kajsa Garpe

Mangrove ecosystems are found in the zone between land and sea.



Hanna Wolf

More than 50 % of the total population in Bangladesh is landless. The number of landless people has doubled over the past three decades.



Nina Wertholz

Pandalus marknadsför stora tigerräkor från Bangladesh.

Introduction

Across European supermarkets today, tropical prawns line the aisles of frozen food sections, seductively winking out at passing shoppers. Deep-fried, barbecued, thrown into stir-fries, tossed onto salads and commonplace on sushi, we are eating more tropical prawns than ever before, despite rarely knowing where they are from or how they have been produced.

In recent years the production of tropical prawns, or shrimp, as they are also known¹, has rocketed; it is a multi-billion dollar business, expanding each year, with global production in excess of 1.3 million tonnes of shrimp per year², mostly from just a small handful of countries. At face value, the growth in popularity of tropical prawns in Europe, the US and Japan appears to be harmless; perhaps even a positive example of much-needed trade for cash strapped Southern economies. But there is a hidden reality that is not told; a story that starts thousands of miles from where the prawns are consumed. It is often a story of ecological damage, livelihood destruction and corruption. This is the tale of shrimp's long dark shadow.

As part of a global investigation into Swedish imports of tropical prawn, the Swedish Society for Nature Conservation (SSNC) commissioned investigations in Bangladesh and Ecuador.

In April 2011 the investigating team spent time in the shrimp-producing areas of Bangladesh to determine the true cost of the country's shrimp production. The findings from Bangladesh are based on interviews and discussions with community members and relevant experts. Community members were identified and approached based primarily on their willingness to testify. Due to government sensitivity and restrictions on reporting openly on the shrimp industry in Bangladesh it was difficult to verify the claims of the villagers. Most interviewees that appear in this report are affiliated with Nijera Kori³, a civil society organisation in Bangladesh that numbers some 200 000 people. Members

of Nijera Kori have faced strong governmental intimidation in the recent past for their work in opposing environmental degradation and human rights abuses in the area. This repressive attitude towards reporting on shrimp issues in Bangladesh was exemplified during the course of this investigation, when a group of armed police were sent to monitor and even attempt to detain the team, as they walked around talking with the communities.

The situation in the shrimp-producing district of Khulna was disheartening. The scarcity of natural resources and the vulnerability to extreme weather events were striking. Violence and intimidation related to shrimp production were commonplace. Based on more than 30 years experience in working with coastal communities in Bangladesh, Nijera Kori confirms that the testimonies, contained within this report, are in no way unique; but are part of a broader pattern of negative impact already described by Nijera Kori and others.^{4 5 6}

In summary, prawn production is aggravating and further degrading the situation of poor and marginalized communities in coastal Bangladesh.

The findings of this report paint a grim picture of the state of the tropical shrimp industry, and the negative impacts that it continues to have on the environment and on marginalised coastal communities around the world.

Finally, this investigation illustrates the degree to which the problems identified on the ground in Bangladesh can be traced directly back to food that is on sale in some of Sweden's best known stores, such as Ica, Vi and Daglivs.

1 In certain countries bigger species are referred to as 'prawns' and smaller as 'shrimp'. In other parts of the world, it is the other way around. According to the FAO, a shrimp is a saltwater crustacean and a prawn is a freshwater crustacean. For the purpose of this report, the terms shrimp and prawn will be used interchangeably.

2 Walsh, B. 2011. The End of the Line. Time Magazine 07/07/11

3 <http://www.nijerakori.org/>

4 Ibid

5 Nijera Kori 2011. Background Description of Polder 20

6 Interview with Sadika Halim, Right to Information Commissioner for Bangladesh. April 2011



Shrimp fry catching in the Sunderbans.

The mangrove ecosystem

There are many good reasons why the world's coastal areas need to be protected. They constitute only seven percent of the area of the oceans, but due to their productivity they supply half of the global fishery resources. In addition, the diversity of ecosystems such as mangroves and coral reefs is astounding. The catches of fish and shellfish from coastal areas help feed three billion people and, not least, constitute the main source of protein for 400 million people in the world's poorest countries.

Mangrove ecosystems are found in the zone between land and sea along sub-tropical and tropical coasts. They are among the most productive ecosystems on the planet. With their labyrinths of stilt roots and trunks, the mangrove trees act as nurseries, food stores and shelter for fish, crustaceans, molluscs and many other organisms. They also provide protection against storms and waves, and reduce the risk of coastal erosion by stabilising the soil. Furthermore, like a filter the mangroves capture sediment and contaminants in water flowing towards the sea.

A common misconception is that the mangrove ecosystem only consists of areas with mangrove trees. In fact, the mangrove forest may also contain zones of salt and mud deposits.⁷ The ecology of salt flats or salt marshes is very complex and dynamic and their importance must not be underestimated.^{8,9} Occasionally these typically barren zones are flooded, allowing for reinvasion by marine animals, usually crabs and fish. The alternating cycles of life and death result in the release of large amounts of nutrients that become available when flooded. Saline lagoons and salt flats play a substantial role in the functioning, maintenance and stability of river deltas, coastal lagoons and embayments. They are also important habitats for migratory birds.

Oceans and coastal zones have an enormous capacity to store carbon. Carbon that is taken up by marine animals and plants can accumulate in sediments on the ocean floors. Sediments in mangrove forests and the associated salt



Mangrove ecosystems are among the most productive ecosystems on the planet.



Mangrove ecosystems are highly productive and diverse.

marshes can store carbon for thousands of years. Stable marine and coastal ecosystems thus help mitigate climate change.

Millions of people depend on mangroves for their livelihood. They fish, collect shellfish, building materials and firewood, and use plants from the mangrove forests as medicines. Mangrove forests and salt marshes are disappearing at an alarming rate. About half of the mangrove forests that once existed are already gone. Shrimp farming has been the main reason for the loss in many countries, and the industry continues to pose a serious threat.

⁷ Definition of mangrove ecosystems 1986. Gulf of Guayaquil, Ecuador by University of Delaware Newark and Centro de Levantamientos Integrados de Recursos Naturales por Sensores Remotos (CLIRSEN)

⁸ Proposed Ramsar Guidelines For Designating Salt Flats as Wetlands of International Importance. www.lewisenv.com/Salt_Flat_draft_for_MAP.doc

⁹ Cullinan, M et al. 2004. Salt Marshes - A Valuable Ecosystem. The Traprock 3:20 - 23



Bangladesh

Surface: 147 570 km² (one third of Sweden)

Population: 164.4 million

Capital: Dhaka

Government: republic

Natural resources: natural gas, arable land, timber, coal

Life expectancy: 67 years

Median age: 23.5 years

Under-5 mortality: 57 per 1,000

Adult literacy: 55 per cent

Unemployment: 5.1 percent (note: about 40 percent of the population is underemployed)

HDI-ranking¹⁰: 129/169

CPI-ranking¹¹: 134/178 (CPI for Bangladesh is 2.4, CPI for e.g. Sweden is 9.2)

Shrimp production: 102 854 metric tons (2008-2009)

Shrimp export: 50 368 metric tons (2008-2009), together with other frozen food shrimp exports constitutes 2.73% of export earnings¹²

Mangrove ecosystem: Approximately 200 000 – 250 000 hectares of mangrove forest have been destroyed for shrimp cultivation.

Small-scale fisheries: Fish and fisheries have always been important for many people in Bangladesh, generating income for millions of people and constituting 60 % of animal protein intake.¹³

¹⁰ Human Development Index (HDI) is used to measure the prosperity. It is a comparative measure of life expectancy, literacy, education and standards of living for countries worldwide. To compare, Sweden's position is 9/169.

¹¹ The Corruption Perceptions Index (CPI) measures the level of corruption in the public sector. The CPI is an aggregate indicator that compiles aspects of corruption such as bribery of public officials, kickbacks in public procurement, embezzlement of public funds, and effectiveness of public sector anti-corruption efforts.

¹² Statistics from the Trend Index, Export Promotion Bureau, Ministry of Commerce, Government of Bangladesh

¹³ Jentoft, S. Eide A. 2011. Poverty Mosaics: Realities and Prospects in Small-Scale Fisheries

Shrimp production in Bangladesh



In the Khulna district, shrimp farming has converted extensive areas of farmland to export-oriented shrimp farming.

Shrimp production in Bangladesh covers an area of 217 877 hectares, and is focused in two areas on the coastline. 20% of national production takes place around Cox's Bazaar in Chittagong in the South Eastern corner of Bangladesh, and the remaining 80% close to the Sunderbans mangrove forest in the South West, within the districts of Khulna, Bagerhat, Jessore, Narail, Gopalganj and Noakhali.¹⁴ As a nation, Bangladesh is one of the top ten global prawn producers, supplying roughly 55% to the EU and 35% to the USA, with the remainder going to Japan.

Tropical shrimp has always been an important part of Bangladeshi diet, especially so in coastal regions, where both marine wild-caught and fresh-water shrimp species, cultivated alongside rice crops in paddy fields, have traditionally contributed to a varied diet in the coastal and riverine areas. These species include *harina*, *chali*, *bagda*, *rashna*, *chamni*, *chaka* and *galda* shrimp to name a few.

With the birth of global trade in tropical shrimp however, land use patterns began to change as urban entrepreneurs, wealthy landowners and transnational banks alike sought to boost profits and Bangladesh's national income. In the early 90s the so-called blue revolution was born. By 2003-4 it was reported that \$378 million were earned from this sector alone, marking it out as one of the most profitable export industries in the country,¹⁵ as black tiger bagda shrimp (*Penaeus monodon*) and sweet-water galda shrimp (*Macrobrachium rosenbergi*), became sought after overseas. Shrimp farming had become big business and tales of enormous profit margins fuelled the expansion.

¹⁴ Nupur, J.M. 2010. Problems and Prospects of Shrimp Farming in Bangladesh

¹⁵ Ibid

Sunderban: The beautiful forest

Spanning almost 10 000 square kilometers across two countries and designated as a Unesco World Heritage site, the Sunderbans is, by far, the largest mangrove ecosystem in the world. This mosquito-infested land of tangled roots, mud flats and saline water, provides sanctuary to some of the world's most endangered mammals. The vulnerable Irrawaddy dolphin¹⁶, endangered Gangetic dolphin¹⁷ and saltwater crocodile are amongst the myriad of animals which thrive in the waterways of the flooded forest. Sandy areas close to the sea provide nesting areas for olive ridley turtles, whilst further inland dry areas provide precious habitat for the largest remaining population of Bengal tigers on earth, with a population estimated to be in excess of several hundred¹⁸ individuals that reside within the forest's dwindling borders. 58 species of mammal, 55 species of reptile and around 315¹⁹ bird species live in the Sunderbans.²⁰

It may seem an inhospitable place, but the salty, tiger-roaming habitat of the Sunderbans is much more than a conservationist's game reserve. For hundreds and perhaps thousands of years, the immense biodiversity of Bangladesh's coastal forests has supported and underpinned the livelihoods of communities living close by to them, who have long depended upon the mangrove ecosystem for food, shelter and income. Indeed, the vast flooded forest, whose name 'Sunderbans' translates as 'beautiful forest', is thought to be named after the Sundari tree, one of 30 species of tree commonly occurring within the forest, and a species that offers excellent timber for construction. Other construction materials for housing also grow, including *gol pata* or nipa palm, commonly used for building house roofs. Honey, beeswax, crustaceans and mollusks are other resources regularly harvested from the Sunderbans along with an estimated 150 fish species, which form a crucial role in coastal diets of communities.²¹

*The forests of Bangladesh are very important; after all they are all we have. Our lives will lack nothing if the forest is healthy*²²

Despite the respect traditionally given to the 'beautiful' forest, in recent decades the Sunderban forest areas across Bangladesh have been decimated and degraded, and much of this has been caused by a growth in shrimp farming for export, driven by a growing demand in Europe and the United States. The degradation is an ongoing problem that to this day threatens to further degrade the Sunderbans, and the communities who depend upon it.

Martina Nilsson



Sunderbans is the world's largest mangrove ecosystem and a UNESCO World Heritage Site.

¹⁶ IUCN Red List of Threatened Species 2011 <http://www.iucnredlist.org/apps/redlist/details/15419/0>

¹⁷ IUCN Red List of Threatened Species 2011 <http://www.iucnredlist.org/apps/redlist/details/41756/0>

¹⁸ Forest of Tigers Annu Jalais, Routledge New Delhi 2010, p. 1

¹⁹ Ramsar 2009, World Atlas of Mangroves 2009, p. 85

²⁰ Sunderban Biosphere Reserve http://www.sundarbanbiosphere.org/html_files/fauna.htm

²¹ Gain, P. 2006. Stolen Forests SEHD, p.82

²² Interview with Javed Sana, nipa palm collector, Harinagar District Bangladesh

Chokoria Sunderbans: The forest with no trees

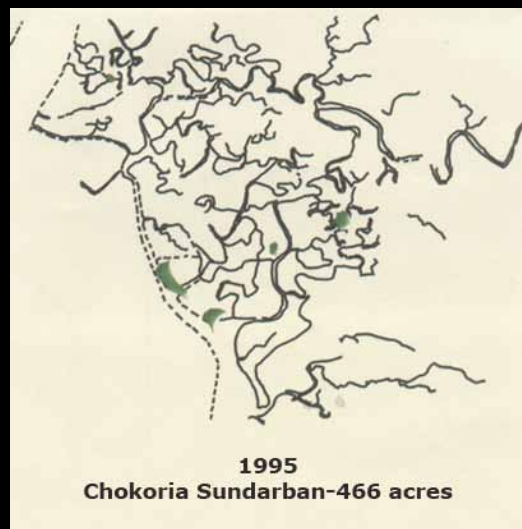
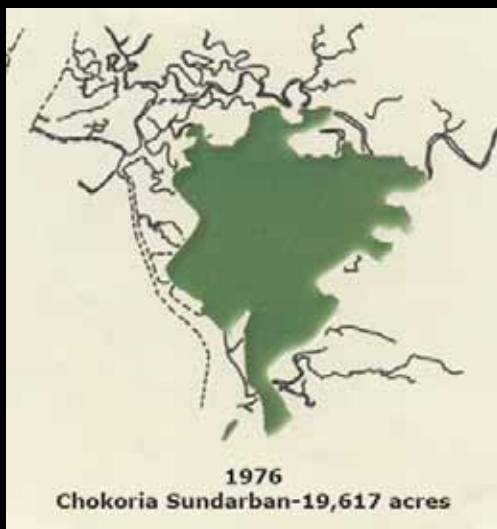
In the southwest of Bangladesh, close to Cox's Bazaar, the Chokoria Sunderbans once sprawled across 8 500 hectares land. Like mangroves around the South Asia, this forested area was once tremendously diverse, providing sanctuary to hundreds of species; including tigers and deer, a myriad of commercially important fish species, as well as providing timber, thatch, medicine and shelter to the communities who lived around it.²³ But shrimp thrive in muddy, brackish water that is commonly found in the mangrove ecosystem, so with the new-found hunger for shrimp in industrialized countries, and a belief that shrimp farms would help create development; the World Bank and Asian Development Bank funded projects in the 1980s that destroyed large sections of the forest, helping to transforming a biodiversity treasure-trove into a flat tree-less landscape interrupted only by the occasional root or irrigation-canal drain that feeds into the myriad of shrimp ponds.^{24 25 26} The clear-felled devastation is undisputed. Even the Asian Development Bank, who in part financed the mangrove destruction that took place in

*The main objectives were to promote shrimp aquaculture production to generate foreign exchange earnings, increase the availability of fish for domestic consumption, and enhance incomes and employment in the rural areas.*³⁰

Chokoria, admits that “the clearing of mangrove in the Chokoria Sunderban under the project has clearly reduced shrimp/fish breeding and nursery grounds in the area.”²⁷

It is painfully ironic that the destruction and replacement of the mangrove ecosystem in Chokoria for prawn farms took place ostensibly to help boost local fishery production partly through prawn farming, in the mistaken belief that this would alleviate rural poverty.²⁸

Chokoria Sunderbans before and after the shrimp farming expansion. Mangrove areas are showed in green.²⁵



23 Roban Rosan Chokoria Sunderbans a 'dead horse' New Age Magazine, August 9th 2003

24 Chowdhury, S.R.K. 2009. Devastating Development: a case of WB and ADB financed ecological debt. Climate Justice Campaign Brief

25 Gain, P. 2002. The Last Forests of Bangladesh

26 Choudhury, A.M., Quadir, D.A., Islam, J. 1994. Study of Chokoria Sundarbans using remote sensing techniques. Technical report

27 Asian Development Bank 1989. Project Completion Report of the Aquaculture Development Project in Bangladesh

28 Asian Development Bank 1989. Project Completion Report of the Aquaculture Development Project in Bangladesh

29 Prof. Raquib Ahmed prepared these two images for Society for Environment and Human Development (SEHD) film, "Chokoria Sunderbans: A Forest without Trees"

30 Asian Development Bank 1989. Project Completion Report of the Aquaculture Development Project in Bangladesh

Dhaka April, 2011

Philip Gain, Executive Director of the Society for Environment and Development in Bangladesh

There is a direct link between shrimp farming and mangrove loss. If you look at what happened in Chokoria Sunderbans, it was a unique patch of 8 500 hectares. After shrimp farming started it was completely cut. When we replace a forest like that with prawn aquaculture, we lose everything. We lose all biological diversity; Chokoria used to have monkeys, crocodiles and it was rich breeding ground for fish. Now, if you go there it is barren, from a distance it looks like a desert. The chain in nature is completely broken, no tree stands, no animals, no fish, nothing is left.

Hanna Wolf



Shrimp production have resulted in extensive areas of infertile and useless land.

Fry Catching: Multiplying the madness

The cultivation of prawns for our plates poses yet another silent threat to Bangladesh's marine environment: the collection of wild shrimp fry used to stock shrimp ponds with. Approximately 60% of all the shrimp grown in Bangladesh's vast network of ponds originate from wild-caught fry, and the process used to catch these is deeply destructive. Every day tens of thousands of people trawl the canals, muddy channels and beaches of the Sunderbans and Cox's Bazaar with very fine nets, in search of shrimp fry. Once found, these tiny larvae will be sold onto a succession of middle merchants before starting life in a shrimp pond. But in the process of catching the shrimp fry, enormous quantities of other marine life are caught and disposed of. These include juvenile fish that are vital for coastal ecosystems and depended upon for food by rural communities.

For every 100 tiger prawn fries that are caught, up to 5 000 other types of fish and zoo plankton are killed, and left to die on the muddy riverbanks where the fry-collectors gather to sort their catch.³¹ The knock-on effects of this fry-harvesting practice on riverine ecology and in turn those who depend upon river systems for their food are profound. According to Rizwana Hassan, the Director of the Bangladesh Environmental Lawyers Association and a Goldman Prize winner³², several million coastal people in Bangladesh eat protein deficient meals and shrimp farming plays a central role for this tragic situation. The *kai*, *magur*, *shoal*, *taki*, *royna* and *bele* fish are now thought to be extinct which, according to Hassan, can be linked back to shrimp fry collection.³³



Frycatching is typically carried out by women and children that lack other alternatives.

³¹ Hoq, E. 1999. Environment and Socio-Economic impacts of shrimp culture in south-western Bangladesh. UN-FAO

³² <http://www.goldmanprize.org/2009/asia>

³³ Hasan, R.S. 2009. Commercial Shrimp Cultivation: Food Security, Social and Environmental Impact, presentation

For every 100 tiger prawn fries that are caught, up to 5 000 other types of fish and zoo plankton are killed

Shrimp fry collection has been cited by some as a benefit of shrimp farming, offering cash income and thus a degree of empowerment to women, who would otherwise have no work. But far from supporting people, shrimp fry collection is widely seen to be difficult, dangerous and unrewarding. Furthermore, fry collection is a widespread employer of children and women who are struggling at the very margins of society to survive, often after having lost their livelihood due to the negative impacts of shrimp farming in the first place.³⁴ Rather than lifting them out of poverty, many women are compelled to collect fry as bonded labourers; obliged to pay back loans under extremely high rates of interest to middlemen or ‘dhadon’ as they are known.³⁵ Stories of stillbirth, skin diseases and other sickness suffered by pregnant women and children, caused from wading in the water for hours every day, are commonplace.³⁶

As the shrimp fry numbers have decreased over the years in the canals and river channels close to farmland, it is alleged that the fry collectors and the middlemen who exploit them, have ventured further afield, travelling by boats, deep into protected Sunderban areas, where experts claim they are annihilating juvenile fish numbers, reducing biodiversity and undermining the function of marine ecosystems in the heart of the world’s largest remaining mangrove forest.³⁷



Ecotorm

For each shrimp larvae that is caught, some 50 fish larvae and other organisms are thrown away to die on the shores of the river.

Kamarkhali, April 2011
Montosh, boat driver

When they use mosquito net to catch shrimp fry, a lot of other kinds of fish get killed by this. When they sit down to collect the shrimp fry, they throw away the other fish fry on the river bank. All the small fishes are dying, they are not getting any chance to grow. In the river these days you get hardly any fish. It is almost down to nothing.



Charbandhah, April 2011
Biddut Sardar, shrimp fry collector

Over the last few days I have earned around Taka 10-20 (10-20 cents). We will buy whatever we can get with this money. Where will I get money to buy the things I need? There is no future in this but we have to live on this only! What else can we do about it?

³⁴ Khanam, K. 2009. Women Shrimp Fry Collectors at Joymonir Thota. In Gain, P. Investigative Reports Environment and Human Rights, SEHD, p. 221.

³⁵ Murtaza, G. 2004. Women in Shrimp Cultivation and their Insecurity in the SouthWestern Coastal Belt of Bangladesh. In Participatory Planning and Environment Management for Salinity Affected Coastal Regions of Bangladesh, p. 78

³⁶ Khanam, K. 2010. Women Shrimp Fry Collectors at Joymonir Thota, from Investigative Reports Environment and Human Rights, Edited by Gain, P. SEHD Dhaka

³⁷ Interview with Philip Gain, Executive Director of the Society for Environment and Development in Bangladesh. 2011

Hanna Wolf



Philip Gains



Ecostream



The demand for tropical shrimp from the EU, US and Japan is fuelling the expansion of shrimp farming.

Flooding, salt-water intrusion and increased vulnerability to extreme weather

The low lying coastal lands of Bangladesh are frequently subjected to extreme weather events, cyclones and storm surges rolling in from the Bay of Bengal and Bangladesh's coastal people have learned to adapt to the challenges that nature throws at them. The battle against saline intrusion onto otherwise non-saline fertile lands is a constant one. Where there is coastal forest the ecosystem is more resilient; the mangrove ecosystem provides a natural sponge-like buffer against the effects of cyclones. Where forests have been destroyed, as in the Chokoria Sunderbans, the impacts of such extreme events are exacerbated. With the advent of climate change, extreme weather events may increase in number and strength, posing severe risks for coastal communities in Bangladesh.

To maintain valuable agricultural land in low-lying coastal Bangladesh, one simple but fundamentally important design is that of the embankment; high-sided walls built in the 1960s that protect fertile flat lands and villages from salt water intrusion. But these historically effective barriers against storms are beginning to fall apart, with dire consequences for people who depend upon them; and it is claimed that a major cause of their decay is shrimp farms.

Sluice-gates in the embankments provide a way for agriculture farmers to control when and how much water they choose to irrigate or flood their lands with. Farmers will, for example, commonly look to irrigate their lands only when fresh water comes in from upstream, and close the dam when the salty water flows up from the Bay of Bengal.



Ecostorm

Paddy fields that used to provide livelihoods and food security for many villagers can be turned into saline ponds, literally overnight. The consequences are disastrous.

Panshu, Dacop District, April 2011
Basu Debroy, elected official

Basu Debroy spoke to the team from the isolated embankment in his community that three years later still is home to many refugees who are unable to return to their salt-destroyed homelands, three years after cyclone Aila struck.

I would say that this was the worst incident that I have seen in my life. The embankments were breached and water overflowed. Areas where water overflowed on the day of [cyclone] Aila and where roads were washed out are those places where the embankment was cut to insert a pipe to get the saline water inside to make shrimp. Almost 99-100% of these areas were broken and the water came in. This I would say was the main reason for the destruction.

Because of the shrimp farms the problem of river erosion has worsened, the impacts on the environment are worse. Our lands are getting destroyed, our life and livelihood are at stake, people of this area do not have much income. We are going through a very hard time after Aila. We did not get any crop for the last three years now. There is no doctor here, people do not have any food at home, we are disconnected from the rest of the country.

When the land is inundated with saline water, almost all crops and fruits are unable to grow, wreaking havoc with farming communities who depend upon these staple crops to survive.



Sluice gates regulate irrigation and flooding of the land.



Philip Gaines

3.9 million people became homeless due to the impacts of cyclone Aila.

The reverse is true for shrimp farmers, as shrimp farms need regular supplies of brackish or salty water to keep shrimp ponds active, and in order to do this, shrimp producers in Khulna typically insert pipelines or sluice gates into the embankment walls without permission, enabling water to flow back and forth; and many hectares of valuable paddy can be turned into a saline pond for shrimp, literally overnight.

When the land is inundated with saline water, almost all crops and fruits are unable to grow, wreaking havoc with farming communities who depend upon these staple crops to survive. More than 30% of all of Bangladesh's cultivable land is in coastal areas and of this 2.86 million ha in total, 1.06 million ha of arable land are affected by salinity and the greatest salinity concentrations are found in areas under brackish water shrimp cultivation.³⁸

The excess of sluice gates in the embankments, due to prawn farming also dramatically reduces the ability of walls to withstand periodical storms.³⁹ Cyclone Aila hit Bangladesh on 25th May 2009 and aid agencies estimated that 3.9 million people were made homeless and approximately 140 000 hectares of farmland were destroyed in an instant.⁴⁰ Around the shrimp farms of Dacop District, the embankment walls around the rivers were rapidly breached, sending saltwater pouring into thousands of hectares of fertile land and wiping out villages in a matter of minutes.

³⁸ SRDI and Bangladesh Government 2009. Soil Salinity Report

³⁹ Onneshan, U. 2009 Cyclone Aila Initial Assessment Report with focus on Khulna District. Forest Peoples Program

⁴⁰ Red Cross and Red Crescent Operations update Cyclone Aila November 9th 2009

Khulna – the shrimp district



What were once lush paddy fields and grazing areas capable of sustaining countless families have become muddy deserts, watery wastelands.



The district of Khulna lies in the far south-west of Bangladesh, a low-lying area of densely populated fertile lands, and interweaving river channels that border the great forest of the Sunderbans. But in recent years this farming district has changed beyond recognition. What were once lush paddy fields and grazing areas capable of sustaining countless families have become muddy deserts, watery wastelands devoted to the pursuit of export-orientated prawn production.

For over a decade now, Khulna has been at the center of Bangladesh's prawn industry; it is estimated that 73 000 hectares of land are devoted to shrimp farming⁴¹ outstripping in size even the farms built on the forested lands of Chokoria around Cox's Bazaar. In the districts around Khulna however, the farms have been built not on forests, but on farmland; and according to civil rights organizations, the wide-ranging consequences of this have been catastrophic.

41 Chakma, S, Amberntsson. 2002. Mangrove at Risk in Bangladesh, Bangladesh. Observer November 21st, 2002



Sorting the shrimp fry.

Hanna Wolf



Khushi Kabir gather the community members for a meeting.

Nijera Kori, civil society organization with some 200 000 members

Nijera Kori in its current form and focus was formed in 1980 with the aim to work on rural social mobilization at field level without becoming a service-based approach NGO, which would simply create dependency among the target population. Nijera Kori began to concentrate on addressing the situation which causes poverty and destitution of rural people rather than temporarily ameliorating the suffering of those who faced such circumstances. Development activities of Nijera Kori are directed towards the establishment of rights of the 'downtrodden people'. Nijera Kori has a strong gender focus and works to change the biased male perception towards women and encourages women to recognize and assert their own position in society. In addition, it is the view of Nijera Kori that an accountable, democratic environment is absolutely essential for development. Nijera Kori also believes in an environment friendly sustainable development process.

In 2004, the Environmental Justice Foundation (EJF) published a report which described the shrimp-producing regions of Khulna in South-Western Bangladesh as an area that was besieged by violence, intimidation and corruption and where shrimp industry rode roughshod over the lands and in some cases, even the lives of communities caught up in the cross-fire.⁴² Since then, there has been little if any information released on the situation in the region.

For the purpose of this report, the investigation team visited communities in the areas around Khulna, to record the testimonies and experiences of those who live there. The area known as Polder 20 in Upazila Paikgacha district, close to Khulna is home to around 1 220 people on 2 400 hectares of land.⁴³ Polder 20 is at the epicenter of a struggle in the region for farming communities to regain their lands and their livelihoods from shrimp farmers. As farmers risk having their land flooded, the flood gates have become flash points for threats, violence and intimidation; and as the team was told during our investigation, it is a scene that allegedly repeats itself in areas like Polder 20 every season.



Shrimp farming has converted this once fertile land to a lifeless desert.

⁴² EJF in partnership with WildAid 2004. Desert in the Delta: A report on the environmental, human rights and social impacts of shrimp production in Bangladesh

⁴³ Nijera Kori 2010. Background Description of Polder 20

Shrimp farming and the violation of human rights

According to Nijera Kori, landless farmers have been usurped and driven off their land, forced to survive on the margins of once-fertile land; they are cut-off and surrounded by flooded ponds full of shrimp, salty barren wastelands that were once theirs to farm. Despite owning land-holding certificates, families who have lived off the land for generations told the team that they face continued violence, intimidation and hardship if they resist the forcible theft of their land.

For those farmers who resist, an allegedly corrupt police administration⁴⁴ ⁴⁵ and judiciary often awaits their complaints. Amnesty International's reports on Bangladesh from 2008-2011 confirm that cases of arbitrary arrests and detention, excessive use of force, torture and other violations of human rights are commonplace.⁴⁶ A common tactic employed by the pro-shrimp administrations, described to the team by various interviewees, is to lay criminal charges not against the shrimp farmers or the thugs who terrorise



People have gathered in Polder 20 to talk about the impacts of the shrimp industry.

⁴⁴ Interviewees in Bangladesh repeatedly presented allegations of police corruption to the investigators

⁴⁵ According to Transparency International's 2010 Corruption Perceptions Index, Bangladesh scores 2.4 on a scale from 10 (highly clean) to 0 (highly corrupt). The country is currently ranked 134 out of 178 countries reviewed by Transparency International.

⁴⁶ Amnesty International 2008, 2009, 2010, 2011. Annual Reports Bangladesh.

Radhangar, Polder 20, April 2011
Gautam Mondol, farmer

They [the shrimp farmers] have the local administration in their pockets by using money the politicians are also bought by them. They are suppressing us by filing cases after false cases. At present there are five false cases against me. I am accused only because I am part of the movement against saline water. The toughest case against me is that I am accused in a murder case. I am also accused of fighting, loot, extortion of money; we are all accused of different acts of violence and extortion. Once I was in jail for 16 days and the second time for four months. I was hanged; I also was also given electric shock. They wanted to send a message across my community by torturing me like that. They did not ask me anything about the murder. But they asked me why we are with Nijera Kori! Why this movement against saline water? "This is not what you should be doing", they said.⁴⁷



Hanna Wolf

Collecting drinking water requires a long journey nowadays.

the communities and steal their land, but rather on those who complain about being thrown off their land in the first place, effectively silencing the victims into submission. The sheer strength of the claims of the villagers, echoed in the words of every community member spoken to by the team during this investigation, strongly suggests that the violent patterns documented by EJF in 2004 still remain. The abuses documented 2011 by the team in places such as Polder 20 are related to the mass cultivation of shrimp; products that once harvested, are frozen, packaged and sold for export to our supermarkets and dinner tables in Europe.

*People who are poor, and
powerless do not have the
ability to hold onto their land.*



Dhaka, April 2011
Khushi Kabir, co-ordinator Nijera Kori

It's very simple to take land from people in Bangladesh. People who are poor, and powerless do not have the ability to hold onto their land. The police take the side of the shrimp farmers and do everything they can to support them. In the last two months we have had many cases of conflicts, people trying to resist the flooding of their lands for shrimp. There have been a lot of false cases, violence, people beaten up.



Modhukhali, Khulna District, April 2011
Anonymous farmer

We have some land but it is all under saline water. We simply can't plant anything on it. My husband and I were badly beaten up while trying to stop them to flooding saline water inside our land. We are still resisting it, even after getting harassed and beaten up by them. We leave our children home alone at night and go to keep a vigil on the gates. While sitting there at night the goons come in fishing boats. They come with arms and we fight them empty-handed. We get beaten up, we get harassed, but we still keep resisting. We do not want the shrimp farms. We want to plant paddy and plants so that we can ensure some food for our children. We do not want saline water anymore. If we can get sweet water, then we will be able to grow some rice and stock some food for six months and survive. Then we can ensure some minimal food for our children. We can also send them to school. This is all we want. You cannot imagine how hard it is for us to live in this situation. My request to my brothers in a foreign land, if you can stop eating shrimps from our country then there is chance for us to live. If you do not stop eating shrimps then we have no other way to live, we will die.

⁴⁷ In September 2011 Gautam Mondol has not yet been convicted on any of the charges against him

Shrimp farming from a women's rights perspective

The negative patterns of land grabbing and intimidation recorded by the team in shrimp farming areas around Khulna, clearly affect entire families whose lands and livelihoods have been destroyed. According to Nijera Kori and experts in the field of women's rights however, there is allegedly a particularly negative impact towards women, arising from the spread of shrimp aquaculture ponds.^{48 49 50} These factors may arise for a variety of reasons; in areas of shrimp farms around Khulna it is alleged that women for example have become more vulnerable; they are forced to walk further to gather water, firewood and food, and they are more likely to be alone, with the husbands frequently working in cities far away due to loss of their farmland. Furthermore shrimp farm owners often employ men from outside of the local communities, whose job it is to farm and police the shrimp ponds themselves, creating a local demographic imbalance and provoking unease in a tightly-knit and traditionally conservative, rural village society. According to Nijera Kori, allegations of rape and even kidnap of women are relatively commonplace, but are often hard to prove. In the event of an attack or harassment, if a woman should complain, it is also alleged that the judiciary is much more likely to side with the male-dominated and pro-shrimp farming elite than the female victim; creating both a feeling of hopelessness on the part of women, and a sense of immunity on the part of shrimp farm employees, who are thus potentially able to carry out harassment and or violent crimes with a degree of impunity. Violence towards women in Bangladesh is sadly widespread, but nonetheless Nijera Kori, working in various coastal areas of Bangladesh, claims that the host of factors described above, has created a situation where women are more likely to be victims of sexual violence when industrial shrimp farming is taking place in their area.⁵¹

Dhaka. April 2011

Sadika Halim, Right to Information Commissioner for Bangladesh

Women are facing different kinds of harassment and violence; a very miniscule number of women are going and reporting it to the police; the law enforcement agencies are partisan and corrupt. Those who perpetrate the violence are always powerful. They will use their political power and will bribe their way through and will keep the law enforcing agencies under their grip. When these women go [to the police], they do not get any justice and they lose all hope and the rest do not bother to go and report such cases.

Allegations of rape are obviously the most extreme abuses towards women documented in this research, but according to Sadika Halim, Right to Information Commissioner for Bangladesh and an expert on the rights of women across the country, such testimonies are not isolated, but form part of a broader pattern of abuse across the shrimp sector.⁵²

Proponents of the shrimp industry frequently suggest that employment in fry catching, pond clearance and processing-plant production lines provide women with a degree of empowerment through wage-earning potential. But experts and interviewees that the team spoke to dispute this. They maintain that the shrimp industry in Bangladesh frequently undermines the rights and security of women at all stages of the shrimp production process. Sadika Halim is one of them: "Several studies on shrimp farming have unearthed evidence that clearly suggests that it is the women and children of shrimp farming communities who suffer the most, socially and economically, as well as through the violation of their human rights, being subjected to various forms of physical violence, including rape and torture."⁵³

48 Interview with Sadika Halim, Right to Information Commissioner for Bangladesh. April 2011

49 Murtaza, G. 2004 Women in Shrimp Cultivation and their Insecurity in the Southwest Coastal Belt of Bangladesh. In Participatory Planning and Environmental Management of Salinity Affected Coastal Regions of Bangladesh, p.78,

50 Halim, S. 2004. Marginalisation or Empowerment? Women's Involvement in Shrimp Cultivation and Shrimp Processing Plants in Bangladesh in Women Gender and Discrimination, edited by Hossain, K.T. Imam M.H. And Habib, M. H. University of Rajshani in co-operation with DFID UK, p.110

51 Nijera Kori's claims are supported by e.g. Murtaza, G. 2004. Women in Shrimp Cultivation and their Insecurity in the Southwest Coastal Belt of Bangladesh. In Participatory Planning and Environmental Management of Salinity Affected Coastal Regions of Bangladesh, p.78,

52 Interview with Sadika Halim, Right to Information Commissioner for Bangladesh. April 2011
53 Bangladesh Centre for Advanced Studies 2001. Fry Collector's Livelihood Study



Ecosystem

The villagers have gathered in Polder 20 to dismiss the impacts of shrimp farming.

Roskok, Khulna District, April 2011
Rafiza

Rafiza was raped as a teenager by a shrimp farm employee

This boy proposed to me to have a relationship but I did not respond to him. Then he started threatening to kill me. He forced me to have sex with him. It happened around my home, in the shrimp farm. This kind of violence, rape often takes place in this area. There are a lot of workers who come from other parts of the country. The shrimp farm owners do not say anything, to keep the cheap workers happy. A few months ago another girl was raped by a worker. But the farm owners help and protect their workers. For a poor girl like me, it is not possible to run a case against the rapist. So these people never get punished and we cannot fight against this violence..



Unlike many however, Rafiza did go to the police however, and her entire family now live in fear of retaliation by the shrimp farmers.

Before I could go to the police these people went to the police before me. They had filed a case against me, my parents and another uncle of mine. They kept pressurising my father and brother. They told us that "you people are like flies and we can just blow you people away anytime. We will kill you and cut your body in pieces and throw your body into the river. Just drop the case" They are still threatening us.

Women fry collectors, for example, frequently work for little or no income, often in a relationship of bonded labour with fry traders or 'dhadon' who they are frequently indebted to.⁵⁴ Even if they are not employed, it is female members of the household who often may have to work harder because of the damaging impacts of shrimp farms; forced to look for fuel, non-salinated water and food from far away.

Numerous shrimp processing plants surround the river on the outskirts of Khulna. Heavily guarded and suspicious of foreign observers, access to these plants was impossible for the team. According to the research carried out by Sadika Halim, women in processing plants face further intimidation, financial insecurity and health risks, as they prepare shrimp for export to the EU and USA.^{55 56} Processing plants frequently employ women with casual labour contracts, promoting financial insecurity and preventing them from forming unions or other platforms from which they might fight for better standards in the workplace. Women often fall victim to harassment and prostitution with factory supervisors to help guarantee their jobs in the absence of formal contracts.

According to Sadika Halim it appears that women see employment in shrimp, whether catching fry, cleaning ponds or working in factories, as the only resort in a 'no-choice situation' where opportunities for productive engagements are scarce. "Shrimp production has not only led to economic deprivation and ecological degradation of the coastal areas but has also marginalized the poorest of the poor who are mostly women", concludes Halim.⁵⁷

54 Murtaza, G. 2004. Women in Shrimp Cultivation and their Insecurity in the Southwest Coastal Belt of Bangladesh. In Participatory Planning and Environmental Management of Salinity Affected Coastal Regions of Bangladesh, p.78

55 Halim, S. 2004. Marginalisation or Empowerment? Women's Involvement in Shrimp Cultivation and Shrimp Processing Plants in Bangladesh in Women Gender and Discrimination. Edited by Hossain, K.T. Imam M.H. And Habib, M, H. 2004 University of Rajshani in co-operation with DFID UK, p.110

56 Interview with Sadika Halim, Right to Information Commissioner for Bangladesh. April 2011

57 Interview with Sadika Halim, Right to Information Commissioner for Bangladesh. April 2011

Is shrimp farming development?

Advocates of shrimp farming claim that the development of an export-orientated shrimp industry in remote rural regions of coastal Bangladesh is a fundamentally good decision, one that brings in much-needed foreign revenue and will automatically help to improve local livelihoods, lifting local economies from self-sufficiency into cash economies, that are shared by much of the rest of the world. The World Bank and Asian Development Bank helped to kick-start export-led aquaculture in Bangladesh through this free-trade and export-oriented ideology; and both USAID, and the UK's Department for International Development, amongst other foreign donor agencies, have over the last decade continued to invest in, subsidise and encourage the growth of the shrimp export sector in Bangladesh with the same kind of rationale. But beyond the stories of mangrove destruction, rape and intimidation outlined above, it is clear that aquaculture has fundamentally transformed and degraded the once-fertile lands in areas such as Khulna from fertile farmland, capable of sustaining communities, into saline, infertile shrimp monocultures. The shrimp-export model of production has both directly and indirectly eroded the livelihoods and basic foundations of survival for many communities; sometimes forcing them to the margins of survival.

For Khushi Kabir, co-ordinator of Nijera Kori, the testimonies recorded by the team in and around Polder 20, are stories that she hears all too often replicated in households across the region where shrimp cultivation has ridden roughshod over people's farms, homes and livelihoods. For Kabir it is an important lesson for those who still seek to promote the development of export-led aquaculture as a blanket-solution solution to rural poverty in countries like Bangladesh.

Dhaka, April 2011

Khushi Kabir, co-ordinator Nijera Kori

In Bangladesh everything is interlinked, you live off the land, your school is in the village, your family. It's an interlinked and inter-related system, living off the land or the water if you're a fisherman. But with shrimp farming you lose all that. So everything has been completely destroyed, the very system that sustains the family. Today they [the affected communities] are just trying to forage for some kind of survival.

Export-led shrimp aquaculture is anti-development. People who are living in areas where shrimp is being cultivated, are being completely deprived of their livelihoods, of their lives often, because there's so much violence. It's a system that is completely non-sustainable, and just to provide some food for people to be able to eat cheaply in the northern countries. How can that be development?



People who are living in areas where shrimp is being cultivated, are being completely deprived of their livelihoods, of their lives often, because here's so much violence.

Is there an alternative to shrimp farming?

A visit to Polder 22

It takes just a few minutes on passenger boat to travel from Polder 20 on one side of the river, to the area known as Polder 22 on the other, but the differences between the two areas are striking. Those who promote and defend the commercial shrimp industry often argue that shrimp farming provides a better source of livelihood for the local communities, than does agriculture or fishing, but the images from Polder 22 tell a different story. In Polder 22 there are no shrimp ponds, and instead there are trees, fruits and vegetables growing in every home. Children attend schools and people can be seen labouring in the fields all around, harvesting food crops to eat and sell.

Polder 22 is an exception in this region, because the communities have successfully managed to rid themselves of shrimp farms. It is a battle that was hard-fought. Walking along the river path in Polder 22, one passes a memorial to those who fell, including Korunamoi Sardar, murdered and maimed by hired thugs and security forces who tried to force communities to accept shrimp farms on their land.⁵⁸ The people of polder 22 held out however, and against all the odds, today the place is one of the only non-shrimp farming areas in the region, provides striking evidence that there are indeed viable alternatives to prawn farming for coastal communities in Bangladesh.

We used to be able to grow our own vegetables but now we have to buy everything. Because of saline water. We just cannot grow anything.



58 Korunamoi Sardar was murdered by private security forces on November 7th 1990 while she formed part of a peaceful protest, at the orders of a businessman Wajed Ali, who was intent on forcing aquaculture into Polder 22. Ali died before he could be brought to justice. Over a decade later 12 others were subsequently convicted of her murder, but still evade jail to this day. In Nilufar, A.1997. Innocent victims: The women of Bangladesh are paying a heavy price for resisting the powerful interests in the shrimp farming industry. Samudra 17:19-21

Polder 20



Eco storm

Modhukhali, April 2011
Noorjahan Begum, farmer

Our life it is very hard to survive. It is hard to fathom if you are alive or not. We live hand to mouth, often we go hungry. We are living in a very difficult situation with our family now. Poor people of this area are living in severe situation. If we do not have these bare minimums then how can we survive?



Parmodhukhali, April 2011
Shantilata Biswas, farmer

We fought and managed to get saline water out of this village for two years only, but now they have fought with us have got saline water back in again. If we go near the ponds they beat us up, they attack cattle if the animals go there to drink the water. What are they [the cattle] going to eat? Can you see any grass anywhere? We used to be able to grow our own vegetables but now we have to buy everything. Because of saline water. We just cannot grow anything. There are days when we do not have anything to eat. If we can buy it then we eat, if we cannot then we starve the whole day. They are all outsiders doing it, increasing their wealth. We are poor people, what can we do? They are grabbing land and getting rich, we are the ones to suffer and we are suffering.

Polder 22



Sayedkhali Village, April 2011
Taiub-Ur Rahman, farmer

In my village [Polder 22] you can see agricultural lands all around you. People get to cultivate their land according to their own wish. We have sesame, lentils; we are growing watermelon, pumpkin. After a few days we will also get bitter gourd, okra, eggplant and other vegetables. Besides these we also get rice, we get to harvest rice twice a year. We also cultivate fish. Beside lobster, we also raise different types of carp and other fishes. We did not have too many cattle, but now almost all the houses have cows, goats. We also have poultry, goats, and lambs here. We also have ducks. Just look around you, we have lots of fruits, mostly seasonal fruit trees, lychees, mangos, jackfruit etc. We also have coconut.



Horinkhola, April 2011
Urmila Sardar, farmer

Where there are no shrimp farms, the environment is better in every way. It is better for children, better for the adults. It is better for the trees, cattle, better for everyone. After our movement against the shrimp farms and we closed down the farms, the trees that were almost dead they started to live again, we could grow vegetables and rice, we could also get milk and fodder for our cows. Our kids are going to school and we have basic things to live now. The overall atmosphere got better. We have peace.

Toxic substance used in shrimp production



Hanna Wolf

In a further twist to the allegations of ecological destruction and human rights abuses gathered during the course of this investigation, the team also recorded disturbing evidence to suggest that some prawns from Bangladesh pose a health risk, not just for the life in the mangrove ecosystem and the farming communities that are impacted in their making, but also for those who eat them.

‘Salim’, as we shall call him, is a prawn farmer who claims to both use and sell illegal pesticides in his shrimp ponds; prawns which will go onto supply the shrimp processing factories of Khulna. One pesticide presented by Salim goes by the brand name of *Hildan*, one of dozens of commonly-used household names to describe the powerful insecticide endosulfan. Outlawed under the Stockholm Convention⁵⁹ and banned in over 150 countries around the world including the EU, endosulfans are acutely toxic reaping

havoc with marine ecosystems, workers and communities who are exposed to it, and potentially consumers, who may inadvertently eat products contaminated with it.

The Intergovernmental Forum on Chemical Safety has classified endosulfan as an acutely toxic pesticide.⁶⁰ The European Union’s risk statements for endosulfan⁶¹ state that it is:

- Harmful in contact with skin
- Very toxic by inhalation
- Very toxic if swallowed
- Harmful to the environment
- May cause long-term adverse effects in the aquatic ecosystem

In the long term, endosulfan also poses serious health risks for human beings; it is an endocrine disruptor, causing

⁵⁹ The Stockholm Convention on Persistent Organic Pollutants was adopted 22 May 2001; <http://chm.pops.int/default.aspx>

⁶⁰ GFEA-U 2007 cited in Endosulfan briefing PAN

⁶¹ Ibid

breast cancer cells to grow; it interferes with male hormones, suppresses the immune system, promotes allergic responses; it is also linked to neurological effects such as epilepsy and may cause Parkinson disease. Birth defects have also been seen in laboratory studies and in human populations exposed to endosulfan.⁶²

Given the severe impacts of endosulfans on workers, the environment and potentially consumers as well, allegations that this substance may be in regular use are potentially very serious for the Bangladeshi shrimp export industry and for retailers who continue to sell Bangladeshi prawns. It is however important to note that during this investigation, the team interviewed only one person, who willingly showed us a bottle of endosulfan and described its common availability and use, which of course is not necessarily a representative. But in 2010, a UK film crew producing a documentary on the seafood industry⁶³, also found further evidence of alleged endosulfan use, again from an interview with another shrimp pond farmer in the region around Khulna which supplies EU markets. At a national level, consignments of Bangladeshi shrimp destined for Europe have also been found to contain excessive levels of potentially harmful chemicals, including phosphates and nitrofurant antibiotics.⁶⁴

In a further twist, it is also alleged that unscrupulous traders are able to adulterate prawns destined for Europe. In 2010 a UK television crew filmed a shrimp trader as he demonstrated the adulteration of shrimp in the Khulna area: injecting each prawn collected from ponds with dirty water to increase weight and thus profit. The trader claimed that 70% of all prawns supplied from the principle shrimp farming areas in the Khulna region are subject to a similar kind of adulteration treatment by local traders.⁶⁵

London, UK, April 2011
Keith Tyrell, Pesticide Action Network UK⁶⁵

The impact of endosulfan on the marine environment is disastrous. It's a persistent chemical, it's an incredibly toxic chemical, it's one that affects nearly every element of the aquatic eco-system, from snails through to fish through to amphibians all the way up the food chain it has an impact. It's been responsible for mass fish kills through acute toxicity, but it also impairs the ability of fish to reproduce, and its effects can continue through generations.

My message to consumers who eat prawns from farms where endosulfans may be in regular use is, don't do it! There's no reason to expose oneself to that kind of risk.

Khulna District. April 2011
'Salim'

The name of the medicine is Hildan. This does not come from a legal agent, it is smuggled into our country by unscrupulous businessmen. This is very effective and you get good result. That is why this one from India is in demand. You will get 100% result by using this one. But this is very harmful. I have used it and I know it is very harmful. We use this mostly for shrimp farms. The use of this pesticide is banned in our country, but they are smuggled in regularly. If you go to the shop and ask for it you will get it by today. You can kill everything with this. Just look at the label here, it is clearly written POISON. These are the medicines that are used in all shrimp ponds.

62 Ibid

63 'Fish Unwrapped' Dispatches Channel 4 2011

64 Swiss Federal Department of Economic Affairs DEA Federal veterinary office FVO International affairs Stop and Test List 01/09/11 http://www.bvet.admin.ch/ein_ausfuhr/01183/index.html?lang=en&download=NHZLpZeg7t%2Clnp6lONTU042lZGln1acy4Zn4Z2qZpn02Yuq2Z6gpJCEoF%2CFWym162epYbg2c_jjKbNoKSn

65 'Fish Unwrapped' Dispatches Channel 4, Blakeway Productions

66 <http://www.panna.org/our-community/pan-international>; <http://www.pan-uk.org/>

How traceable is your shrimp?

Dozen's of prawn factories operate in the vicinity of the cities of Khulna and Cox's Bazaar in Bangladesh. This multitude of companies, often trading numerous brands of shrimp under one roof, derive the bulk of their income through the processing and export of farm-raised shrimp to shellfish brokers, retailers and ultimately consumers in industrialized countries. Around 55% of shrimp raised for export from Bangladesh make their way to the European Union, and 35% to the USA. The rest are largely sold to Japan.⁶⁷ According to export statistics, Belgium and the UK are by far the largest markets in EU for Bangladeshi shrimp. This statistic is however misleading, as prawns destined for Belgium and the UK are re-sold to other EU countries, including Sweden.

The investigators contacted buyers of shrimp from Bangladesh around Europe. Several buyers claim that they can trace the precise origin of the shrimp they buy. An investigation carried out in late 2010⁶⁸ however, demonstrated that claims of traceability for prawns cultivated in individually-owned ponds in the region around Khulna are frequently false; with prawns changing hands three or four times before finally ending up at the factory gates. The investigators observed that the sales receipts exchanged between shrimp traders and factories supplying the EU, typically confirm the quantity and quality of shrimp that are sold, but not the farm names or even regions from where they originate from.

Disturbing allegations of adulteration and lack of traceability cast a question mark over European importers in Sweden who continue to source shrimp from Bangladesh.

As part of this investigation, the team chose to focus on the supply chains of two prominent shrimp companies based in Khulna. In common with most shrimp factories, Sobi Fish Processing Industry and Jalalabad Frozen Foods, hereafter known as Sobi and Jalalabad respectively, source their shrimp through a complex network of traders at varying levels around Khulna. In 2010 investigators from



Shrimps of the brand Seaboy were produced in Khulna.

the UK⁶⁹ followed prawns from the local markets around Polder 20, and through a combination of interviews with traders, witnessing sales and observing trading receipts, they found that prawns from Polder 20 make their way to the gates of various processing plants on the outskirts of Khulna, including the two companies described above. Sobi and Jalalabad in turn supply many traders around Europe; prawns from these companies may for example enter the Swedish market via the Netherlands.

Some shrimp export companies claim to source 100% from their own ponds, in order to guarantee transparency. Yet, in order to meet the continual demands of European consumers during low periods of production, the investigators discovered that companies will also revert back to the traders described above, in order to boost their production and meet the targets demanded by importers. Both Sobi and Jalalabad for example told our researchers that they also supply Seamark, a vast company with headquarters in the UK, a \$250 million turnover, nine brands of shrimp and processing facilities and ponds in the Cox's Bazaar area. Incredibly Seamark claims on its website that it has a "total traceability control system"⁷⁰. If Seamark does source prawns from Sobi and Jalalabad however, the traders who in turn supply these factories in Khulna, have no idea of the precise origin of each batch of prawns that they sell; in apparent contradiction to the claims of this company.

67 Bangladesh Export Statistics 2003-4 Export Promotion Bureau

68 Research team working for Channel 4 documentary series Dispatches, 'Fish Unwrapped' Blakeway Productions

69 'Fish Unwrapped' Dispatches Channel 4, Blakeway Productions

70 Seamark Welcome Sales Presentation



Kajsa Garpe

Shrimp from the brand Epic Select were produced in Cox's Bazaar.



Kajsa Garpe

Shrimp of the brand Ocean Pride were produced in Khulna.

Following the trail from Bangladesh to Sweden

Daglivs

Daglivs supermarket is part of the Swedish Cooperative Union, a utility co-operative with 60 member organizations and 2.9 million members. Daglivs sources some its prawns from Galana seafood company in Belgium, who in turn told the team that they source from Modern Seafoods in Khulna, an area that processes many prawns from the conflict areas described above. Galana presented the team with an ethical trading certificate boasting that the products they sell "shall not be produced in a way where there is rueful damage to the environment" and that "human rights as declared by the United Nations, shall not be violated". Another brand found at Daglivs is Epic Select. Epic Select's shrimp are farmed in Khulna and Cox's Bazaar, and processed by Meenhar fisheries via Hotlett Frozen Foods in Belgium.

Ica Group

The Ica Group is one of the Northern Europe's leading retail companies, with around 2 200 of its own and retailer-owned stores in Sweden, Norway, Estonia, Latvia and Lithuania. And Ica also sells shrimp from Bangladesh. Though Ica Sweden has removed tropical shrimp from their central stock, following advice from SSNC, tropical shrimp are regularly found in the retailer-owned Ica stores across the country. Among them prawns of the brands Epic Select, Seaboy and prawns from Nordic Seafood which are farmed and processed in Khulna supplied via Nordic Seafood Denmark to Sweden. Also shrimp from the Swedish importer Pandalus are of Bangladeshi origin, though no information about the region where they are farmed could be obtained.

Vi-butikerna

At the Swedish supermarket chain Vi-butikerna, the investigators found prawns of the brand Tiger, which are farmed in Cox's Bazar, processed at plant Seamark BD in Chittagong and supplied via Seamark UK to Sweden. As outlined above, both Sobi and Jalalbad, who have been found to source prawns from the disputed area of polder 20 in the past told the investigators that they supply Seamark. Ocean King and Ocean Pride prawns were also found on the shelves of Vi, produced in Khulna, traded by Southern Foods Limited and Modern Seafood via Setraco in Belgium, respectively.

Conclusion

This report has shown that the multi-billion dollar shrimp industry has been built on the foundations of ecosystem destruction and human rights abuses. These problems are occurring as we speak.

The investigations focused solely on the shrimp industries of Bangladesh, but worldwide precious mangroves have been cut down, land for farming has been destroyed and the livelihoods of millions of coastal peoples have been degraded in the process. Rarely has one industry been responsible for so much destruction in some of the most bio-diverse ecosystems on earth. Shrimp farming is indeed an ecological and social disaster.

Far from sight and mind, it is easy to blame corrupt officials and weak enforcement in such as Bangladesh for the problems described in this report. But in reality the tropicalshrimp industry, with all its multitude of problems, is ultimately driven and fuelled by consumer demand and by the marketing of restaurants, retailers and others; this includes those who promote and sell certified prawns.

If consumers continue to buy tropical prawns, they put money into the pockets of the prawn industry, helping to inadvertently fund and encourage unsustainable practices that undermine ecosystems and further erode the livelihoods of vulnerable coastal communities around the world.

Likewise, retailers that market shrimps stimulate an ongoing destruction.

For those who want to stop funding mangrove destruction and livelihood degradation around the world, the answer is simple: Stop buying, stop marketing, stop selling and stop eating tropical prawns.

*This is our earnest request to everyone; don't eat prawns.
Only that will keep us alive. If these farms are closed down forever,
then we will have peace in our life.⁷⁰*