

‘Social’ concerns and costs

Oxfam Novib and IUCN_NL assume that trade between ‘North’ and ‘South’ can in principle contribute to poverty reduction. But this is only the case when production leads to a net added value to society at large. The social consequences of cultivating shrimps include a loss of employment and income for local people. Because their source of income (fishing grounds, cultivatable land) are taken away; often accompanied by loss of other economically relevant environmental services (e.g. clean water, by-products from forests). They are often not offered alternative employment on the shrimp farms, because often these require skilled and ‘on site’ workers and do not need that many full time labourers. And where in some countries shrimp cultivation leads to more employment for small producers, these are often locked into a system of credit extension that makes them totally dependent on their credit providers or wholesalers, and in many cases they make no income at all. Also work generated in the shrimp processing industry is of dubious quality. Especially in South Asia children are often still used, and everywhere women and children are making long working days peeling shrimps under unhygienic conditions. As the expansion of an industry is geared towards exports, the way in which the shrimp aquaculture sector is driven by export potential, it is often also neglected to re-invest profits in domestic social-economic development.

‘Ecological’ concerns and costs

IUCN NL and Oxfam Novib believe that natural ecosystems are essential to the world’s ability to maintain its current level of food supplies and necessary ecosystem services such as clean air and adequate water supply. Shrimp aquaculture has over the last twenty years lead to a severe decline in the quality of natural coastal resources, in particular mangroves, and the environmental conditions needed to maintain coastal biodiversity. This has negatively affected the lives of poor people as their lives are inextricably linked to natural ecosystems for diverse food, medicines, housing materials etc. Large scale mangrove loss is leading to declines in fishery production as mangroves act as a natural fish nursery. Shrimp aquaculture involves the wasteful use of increasingly scarce resources of fishmeal going into shrimp diets, resulting in a net loss of protein resources and allied losses due to by-catch from the fishmeal industry. Water use and pollution (with effluents, chemicals etc) can have damaging impacts on ecosystems, in particular in areas with low carrying capacity or where the carrying capacity has already been reached. Shrimp aquaculture is increasingly associated with the farming of non-indigenous species, which brings new threats of disease transmission and reduced biodiversity.

Some key statistics

Production		Production system-share (2003)
Global aquaculture production (FAO 2007)	59 million tonnes (2004)	50-60% truly extensive (low technology, small-scale family enterprise)
Farm gate value	70 billion US\$ (2004)	10-15% truly intensive (high technology, high capital or large scale with corporate investments)
Production in developing countries	80% (in weight, 2003)	
Shrimp farming production (FAO 2006 and 2007)	2 million tonnes (2003)	Growing market but declining profitability
Farm gate value	11 billion US\$ (2004)	Growth shrimp aquaculture: 10%/year over past 3 decades (global; FAO 2006)
Production in Asia	90% (in weight, 2004)	Average price paid at moment of export (global average):
Import USA	530,000 tons (2004)	6.9 US\$/kg (1995)
Import EU	600,000 tons (2004)	4.1 US\$/kg (2004)
Import Japan	250,000 tons (2003)	

Production systems and production costs (2003); typical in Asia.

Extensive: below 2 US\$/kg at 0.3-2 ton/ha.
Semi-intensive: 2-6 US\$/kg at 3-8 ton/ha.
Intensive: 4-8 US\$/kg at 10-20 ton/ha.

Employment: net versus gross estimate

Estimated employment benefit (world): 1.2 – 1.5 million full time jobs (WB/NACA/WWF/FAO 2002).
Estimated foregone employment opportunity (SE Asia): 3-10 livelihoods per ha. (NGO reports from Ecuador and India, WB/NACA/WWF/FAO 2002))

Some costs to ecosystem and rural poor

Ponds abandoned after a few years of use: 50-70% (NGO reports from Thailand and Indonesia)
Small farmers indebted: 60-80% (various academic reports from various countries).
Mangrove losses directly attributed to shrimp aquaculture: 38% (Millennium Ecosystem Assessment)
Comparative economic losses in direct use of ecosystem functions 4-10,000 US\$/ha/yr (various peer-reviewed environmental economics estimates)
Fishmeal and fish oil demand for aquaculture: 35-56% of global production (FAO 2006)
Biomass (feed) input/output ratio: 2.5 – 10 kg per kg (FAO, various papers)

Guide for further reading

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FAO 2006. FAO Fisheries Department. State of world aquaculture. FAO Fisheries Technical Paper, No. 500. Rome, FAO, 2006. 134p.
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WB/NACA/WWF/FAO 2002. Shrimp farming and the environment. World Bank, Network of Aquaculture Centres in Asia-Pacific, World Wildlife Fund, Food and Agriculture Organization: consortium on shrimp farming and the environment. Synthesis report.

Background briefer



Shrimp Aquaculture: High value for whom?

**“The shrimps have food and electricity,
and we don’t”** (Philippine peasant living next to a shrimp farm)

Tropical shrimps are produced in a wasteful manner. The negative ecological and social impacts of shrimp aquaculture (loss of naturally productive coastal ecosystems, marginalising impoverished communities) have been reported on by scientists and NGOs for over twenty years. In exporting countries the production and trade of shrimps leads to direct damages for poor people and natural ecosystems, and high costs for the producing country. Such costs must be avoided and shrimp farming has to become much less damaging. European buyers do have significant influence on this.

We ask European buyers to take responsibility and use that influence.

This briefer is intended as background information to members of the press interested in knowing more about tropical shrimp aquaculture and the controversies around it.

It is made by Oxfam Novib and IUCN Netherlands Committee to elaborate on the short inputs given at the GlobalGAP Shrimp module launch in Brussels on April 23, 2008.

What media can do

The media needs to report on shrimp aquaculture and its associated controversies to make the consumer more aware and thus to encourage the sector worldwide to take responsibility for negative impacts of the production process.

Oxfam Novib and IUCN NI objective:

To make improvements happen in the entire production chain in the shrimp aquaculture sector, in a manner that eliminates or compensates for the negative external effects of this industry.

Aquaculture is a rapidly growing and significant industry. Main production lies in the 'developing countries' and main consumption in the US, Europe and Japan'. It is therefore highly valued as export product of developing countries. Currently aquaculture stands at over 60 billion US/year export value on the international market. This value is bigger than that of coffee, bananas, sugar, and rice combined. And aquaculture is still growing at 9-10%/year (average over the last decades). The main bulk of the industry lies in E Asia, with S Asia as a good second, Latin America as third, and Africa generally perceived as the continent with potential to expand in. Shrimps are the single biggest commodity in this, but aquaculture also includes other species (tilapia, salmon, carp, catfish, eel, seaweed, etc.).

Who benefits?

- supply of fisheries products: aquaculture compensates for dwindling production in catch
- fisheries exporters, big producers, importers have a valuable commodity with increasingly manageable production and processing with attractive profit margins in production and trade and high export value potential to create an economic sector with employment, investment, and poverty alleviation potential high, and growing, demand among consumers

Who pays?

- local communities and the natural ecosystems that they depend on (destruction of mangroves, pollution of water ways)
- small farmers working in a sector with high risk factors (harvest failures, diseases, food safety)
- local farmers losing livelihoods
- limited management capacity to avoid or compensate such impacts
- it also creates poverty (loss of land)

We concretely ask all the private sector to implement the changes that are needed and work with business partners to make the investments needed to realise them. Certification, as practiced by GlobalGAP and others, can be an important instrument to achieve this.

What needs to change

- No mangroves or other high conservation value areas are converted anymore to make shrimp production possible
- Farmers and fishers produce according to the best available practices (FAO Principles for Responsible Shrimp Farming, other GAPs and BAPs), including respect for labour rights and fair contract farming
- That there are no social or socio-economic conflicts surrounding production sites, avoid illegal expropriation of land
- All involved live up to the intentions of national and local laws Producers, processors, traders, retailers/ buyers practise transparency and traceability in the supply chain
- Openness and transparency on the origin of shrimps and the circumstances under which it was produced is needed

Background to the tropical shrimp issue

Tropical shrimps are increasingly becoming part of the European diets. In many developing countries this growing demand, often encouraged by ill-advised multilateral development aid, has been seen as a good opportunity for earning foreign exchange. The traditional extensive industry has now virtually been transformed into a large-scale industrialised production process, strongly directed towards the export of this product. Many developing countries with extended coastal regions now have developed shrimps as an export item. To mention but a few (important trading partners of the EU): Thailand, India, Indonesia, Bangladesh, Ecuador, Honduras. Rich parts of the world (Japan, EU, USA) are the main markets for the commodity.

Unfortunately the production of tropical shrimps has a very serious downside. It has a large negative impact on the environment, and on the socio-economic well-being of coastal communities that depend on that environment. In social-economic terms the negative effects exists in bad working conditions, skewed credit systems, lost rights to land, economic livelihood losses, and degrading ecosystem functions.



Shrimp aquaculture from production to consumption: some benefit, some lose



A poor family's story: from house, via shrimp farms, to house



In extreme cases violence and murder occur.

These negative effects are to be seen as 'costs' to many of the poor in the societies of developing countries, whilst their governments (driven on by export revenues) follow policies to further develop and encourage the production of shrimps. These negative effects are not exclusively caused by big industrial mono-plantations but also caused by (often) illegal set up of small scale farms. Where it concerns the large scale production systems, the problems are usually 'top down' inflicted on coastal communities (permits granted at national level, powerful investor interests leading to a large negative impact at a given location). And where it concerns the small-scale sector it is most often caused by unregulated establishment by locally well-connected individuals or families who can, by doing so, lay claim on public land (like mangroves). In both cases a key problem lies with governance and the adherence to the intentions of existing laws and policies. But this practice of 'not governing' is encouraged by financial incentives provided by the industry. And making profits on the basis of excluding cost-factors in the production is easier than making profits while taking care of all cost-factors.

In different regions of the world non government organisations (NGOs) and rural communities themselves have been undertaking activities and lobby for years to reverse this. These lobby efforts have so far made research institutes and multilateral policy agencies begin to pay attention to the problems that the shrimps industry is causing. But public and private investments in the shrimps industry continue unabatedly high, and structural solutions to overcome the negative effects have yet to become mainstream policies.

The concerns on negative impacts are not new. Governments recognise them in their legislation. Producers recognise them when they try to develop quality criteria themselves (such as various Good Aquaculture Practices, some of which are being developed with support from the industry itself). And NGOs recognise them in their advocacy on aquaculture and the lobby for more attention to environmental and social costs associated with the industry. The external impacts of aquaculture are definitely part of a global debate on the development of this sector. The private sector is very interested in providing consumers with quality and safety guarantees. Governments are mostly interested in the value that trade may generate (the 'north' wants the products cheap and thus emphasizes economic

efficiency and the removal of cost-factors in trade; the 'south' wants to sell and thus emphasizes export potential and expansion). Civil society has so far been most prominent in shedding light on environmental and social impact of the industry (particularly the loss of mangroves and associated declines in coastal fisheries).

It is becoming clear what alternative courses of action are possible. There are guidelines on shrimp farming practices, there are also guidelines on appropriate legal management of the sector, and there are guidelines on how to conduct buying and selling throughout the supply chain.

In our view:

Importers and retailers in the EU can:

- Actively screen that the product conforms to above criteria
- Actively help producers to comply (after all, it is a common economic interest)
- Actively lobby to governments to facilitate living up to these criteria

Governments can:

- Follow and implement international treaties and agreements on poverty, environment, and good governance
- Hold the private sector accountable for the consequences of its actions; particularly for international corporations additional laws are needed
- Support farmers to decrease risk and invest in GAP

Consumers can:

- Actively seek the information on what they buy
- Make their expectations on environmental and social equity in supply chains known
- And make responsible choices on the basis of that (vote with their 'wallets')

Producers can:

- Invest in GAP
- Improve communication around the production and its un-intended risks

We consider it a positive step that the members of GlobalGAP have developed a standard aiming at sustainable shrimp aquaculture, and at the invitation of GlobalGAP we have provided input as an external adviser to this process. The standard represents a first, but only a first, step towards the members taking the responsibility they have towards a global food trade that brings true and sustained benefits to the poor in developing countries. Now through further co-operation and open dialogue with stakeholders, we look forward to Global Gap members to start implementing and testing these standards in practice and tackle future challenges. It is also hoped that these steps will facilitate a transition to more credible, inclusive and transparent governance of voluntary retailer standard systems.

Oxfam Novib is a member of Oxfam International. Oxfam International is a confederation of 13 organizations working together with over 3000 non-governmental organizations in more than 100 countries to find lasting solutions to poverty, suffering and injustice. We stand for global equity and justice. Because 1/3rd of the world population lives in abject poverty. We work with poor people, we create awareness among richer people, and we influence powerful people. Governments, private sector, and (when it comes to trade) also consumers. www.oxfam.org and www.oxfamnovib.nl (Leo van Mulekom)

IUCN NL is the platform of the Dutch members of IUCN, The World Conservation Union. The World Conservation Union is the largest global nature conservation network. It is unique in bringing together states, government agencies and a diverse range of non-governmental organizations. The mission is to promote nature conservation in a just world. IUCN contributes to the setting of global environmental standards and guides the actions of governments and civil society in sustaining the biological diversity and natural resource base on which human livelihoods depend. www.iucn.nl and www.iucn.org (Mathew Parr)