## Aquaculture

## Tanzania, go easy

The following is an urgent public plea to the Tanzanian government to reject the Rufiji prawn project

understand that there is currently a public hearing being undertaken concerning a gigantic proposed prawn or shrimp (*Penaeus monodon*) aquaculture project in the Rufiji delta area.

I take the liberty of putting forward my views unsolicited because I feel that this is such a crucial issue of far-reaching implications.

Prawn farming has been carried out traditionally in Asia for hundreds of years. The technology has been simple, non-intensive and ecologically benign. The farm sizes have been small and manageable for rural families or small local businesses. There are indeed possibilities for developing this sustainability in order to benefit local communities and the national economy.

However, the international prawn farming business has boomed in eastern Asia explosively and unsustainably, with large-scale farms of high intensity especially during the last 10 years—but with enormous social and ecological problems:

- the benefits have been short-tern and have accrued to a few 'get-rich-quick' opportunists;
- the negative impacts have damaged the long-term interests of local communities;
- corruption and swindle, land grabbing and coercion have become rampant;
- enormous areas of mangroves have been destroyed and natural productivity has fallen;

- huge areas of agricultural land and groundwater have been rendered salty;
- large quantities of fish have taken from the market, affecting poor people;
- massive amounts of prawn and faecal wastes have caused eutrophication;
- prawn diseases have been rampant, causing major collapses in production;
- toxic chemicals and antibiotics have polluted surrounding are:
- after a few years, polluted and diseased sites are abandoned and the foreign 'get-rich-quick opportunists move on to new areas.

Prawn farming production collapsed in Taiwan (the then No. 1 producer) in 1989, mainly due to virus and bacteria diseases and then in China (the next N producer), it collapsed in 1993 due to toxic algal blooms. Thailand, Indonesia, Malaysia and Vietnam are now facing disease problems. All major producers have been plagued by diseases and a fall in production in recent years. And now they are all looking for new, hitherto unpolluted areas, and claiming to be 'environmentally friendly', while employing highly paid consultant, of course.

## South Asian experience

India and Bangladesh have recently been invaded by East Asian prawn farmers. The Supreme Court of India decided to ban prawn farming in 1996 because of all the negative social and ecological impacts.

There is presently much debate and conflict in Bangladesh over this, and ecological destruction and diseases are already rampant there.

he next coastline targeted for unsustainable prawn farming invasion must be East Africa. I understand that the proposal for a project in Rufiji is very large-scale (over 10,000 hectares) and that the investors are mostly foreign. This is absurdly over-dimensioned—the biggest in the world! It is the opposite of a precautionary approach. I am not at all in favour of this.

It would be much wiser to try small-scale, low-intensity prawn farming with local control and initiative, developing it gradually and in a planned manner. There exist serious institutions willing to help in such developments. Tanzania should learn from the lessons of Asia.

The Rufiji delta is an enormous treasure for local communities and for Tanzania as a whole. It is the home of many people with rich traditions and cultural heritage.

It is a source of mangrove poles and wood (which can be harvested sustainably); it is a nursery and fishing ground for important fish and prawn resources; it is an important rice-growing area; and it is a barrier against erosion by the sea. It contains an important conservation area of forest reserve with biodiversity resources (the late Mr Lubango was dedicated to this). The Rufiji delta should

be managed very wisely and cautiously, with full local participation.

Being a Tanzanian marine biologist myself, and having been concerned about ecological and social issues related to coastal areas for many years, with some personal experience and observations on prawn farming, I wanted to take this opportunity to express these views on this important question for Tanzania's development. I feel somewhat qualified to do so because of:

- knowing the Tanzanian coast fairly well (having lived by the coast from the age of nine, and having worked as a marine biologist at the University of Dar es Salaam for 10 years (1972-1982) and having visited the coast every year since then, including several visits to Rufiji, the most recent being in January this year);
- having direct experience, being briefly involved in attempts to develop a smaller prawn farm in Tanzania 10 years ago with local involvement (when the outlook was more optimistic, before diseases struck), and having learned what can go wrong when unsuitable partners get involved; and
- being familiar with some of the relevant issues which have arisen in international prawn farming: I

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teach a post-graduate course on international aquaculture at the University of Bergen (as Adjunct Professor) and work on coastal issues from the Agricultural University of Norway (as Researcher with Professor competence).

Honourable Minister, I humbly request you to consider these views and to reject the giant prawn farm proposal in the Rufiji. In case you would like me to substantiate or to elaborate any of these points, I would be glad to do so.

This public plea faxed on 18 July 1997 to the Minister of Natural Resources and Tourism, Tanzania, was written by lan Bryceson, Professor at the Centre for International Environment and Development Studies, NLH (Agricultural University of Norway)