

Fact Sheet 7 Flood Control and Wild Fish Decrease

by JUDITH EHLERT

The research focused on local knowledge of living with flooding as well as coping with the decrease in wild fish resources.

The characteristics of the flood regime have changed in line with growing human interference into the natural ecosystem of the Mekong Delta. Mounting water control through flood embankments has facilitated the shift from floating rice to high-yield second or triple rice crops and fostered the economic well-being of the region in general. Most houses are constructed on residential dike lines and are therefore safe from inundation, which makes life much more convenient. In the past, 'living with flood' meant total dependency on and the adaptation of cultivation to the weather and the availability of water. In contrast, today's flood is totally subordinated through human control, although the intensification of production inevitably goes hand in hand with high socio-ecological discrepancies.

Pesticides Use in Rice Production



Photograph: Judith Ehlert (2008)

According to local farmers and fishermen, water pollution caused by agricultural pesticides and wastewater discharge from surrounding industrial compounds and fish farms is responsible for the extinction of

wild fish. Landless people especially depend on wild fish capture during the flood season as an important source of seasonal household income. The floodplain used to be a vast habitat for many different fish species, but wild fish resources are dwindling at a rapid rate. This extreme decrease in capture fish goes back to the massive construction of dikes and dams that disconnect the floodplain and thereby obstruct free wild fish migration and breeding. Flood control also facilitates the boost in aquaculture models. With regard to food security, poverty reduction and international export, the Ministry of Agriculture and Rural Development promotes small- and large-scale fish farming systems and respective industrial processing. Successful culture fish farming, however, requires high financial investments and as a result increases social inequality in the delta. Moreover, the intensive growth of the aquaculture sector is an ecological disaster-in-waiting with respect to the degradation of wild fish resources, as culture fish rearing relies heavily on the wild fish as fish fodder (trash fish). Since young wild fish are now becoming over-exploited through the use of electrical gear, chemicals and extremely small-meshed nets, their numbers are dropping rapidly, thus leading to a shortage in cheap fish food for the aquaculture industry. Traditionally, flooded rice fields in the wet season were open to anybody for capture fishing, but the intensification of agriculture and aquaculture through flood control have made access to the floodplains more and more difficult for landless people.

Third Crop Reducing Natural Flood Area



Photograph: Judith Ehler (2008)

Small- and large-scale aquaculture models, as well as triple cropping systems, need to be surrounded by high dikes and contribute to the loss of the natural flood area, since seasonal water is blocked by the dike. The expansion of industrial fish processing companies alongside the main Hau River goes hand in hand with the resettlement of traditional fishing communities living alongside the waterway. Being moved to residential clusters further inland, fishermen lose direct access to the river and in turn their main source of livelihood. Consequently, they have to search for alternative jobs, but due to their low level of formal education many do not qualify for employment in aquaculture processing companies.

As it turns out, ongoing land use changes and land ownership crucially determine a person's access to water. The Mekong Delta is characterised by growing landlessness; from 1993 to 2002, the percentage of landless households in the region increased from 16.9% to 28.9%. More and more people have become dependent on capture fishery as one component of a wider livelihood strategy. Further, population growth puts extra pressure on wild fish resources, which makes floodplain fishery skills and knowledge a strategic resource for

survival. It was observed that landless fishermen try to retain their knowledge about the richest fishing grounds, new catching techniques, the best baits, etc., and only share this precious information with family while cautiously withholding it from competitors. Nevertheless, this way of coping with decreasing wild fish resources will, of course, not be sustainable in the long run.

It seems that livelihood security – one of the strong legitimising factors of agriculture and flood control policy – has also brought about a contrary situation, namely growing social differentiation. For instance, in terms of poverty, wild fish play a much more important role than aquaculture. However, the reality of capture fishery for everyday livelihood security is not acknowledged in the strongly growth-oriented development policies governing the Mekong Delta. As we stand today, the potential contribution of fisheries to the national development goal of poverty reduction and food security remains underestimated, while ecological alternatives to water control measures that block fish habitats are left unconsidered.

Further Reading

EHLERT, J. (2011): *Living with Flood: Local Knowledge in the Mekong Delta, Vietnam*. Lit Verlag. (forthcoming)

GERKE, S. & J. EHLERT (2011) 'Local Knowledge as a Strategic Resource: Fisheries in the Seasonal Floodplains of the Mekong Delta, Vietnam'. In Menkhoff, T., Evers, H.-D., Yue Wah Chay & Eng Fong Pang (Eds.) *Beyond the Knowledge Trap-Strategizing Knowledge as an Engine for Asia's Growth*. World Scientific Publishing, New Jersey, pp. 383-410.

PHAM, C.H., EHLERS, E. & S.V. SUBRAMANIAN (2009): *Dike System Planning: Theory and Practice in Can Tho City, Vietnam*. ZEF Working Paper Series No 47. Bonn. Center for Development Research (ZEF). University of Bonn.

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