Success stories from AFGRP projects

A better understanding of the life histories of some self-recruiting species from aquaculture systems (SRS Project)

Monitoring of the use of self-recruiting species (SRS) in farmer-managed aquatic systems clearly shows their importance in livelihoods of the rural poor in the project countries.

In NE Thailand key resources in farmer-managed systems are wild carnivorous species of high market value. A similar picture emerges in Cambodia, while small non-fish aquatic animals dominate aquatic resource use by the poor in Vietnam where as a result of agricultural intensification natural aquatic resources are overall least abundant.

A preliminary analysis of SRS management by farmers has identified a wealth of indigenous practices, which fall into the broad categories of (i) attracting aquatic animals into farm ponds, (ii) actively transferring wild aquatic animals into farmer-managed systems, (iii) conserving spawning populations within farmer-managed systems and/or in communal water bodies, and (iv) feeding of SRS. There has been little systematic documentation of such practices before, and the extent of the activities further underlines the importance of these resources to the rural poor. Grass roots promoters of aquatic resource management need this type of information to ensure development initiatives complement rural livelihoods. Life histories have been defined for ten species of aquatic animal within the project locations. Researchers have worked with local fishers and farmers to identify the key species of importance in rural livelihoods. Sampling has been conducted by fishers on a monthly basis of the species in each country (*Channa punctatus* and *Puntius sophore* in West Bengal and Bangladesh; *Esomus longimanus*, *Esomus metalicus*, *Trichogaster trichopterus*, *Channa striata*, and *Rasbora tornieri* in Thailand; *Mystus mysticetus* in Cambodia; and *Misgurnus anguillicaudatus* and *Anabas testudinus* in Vietnam). Laboratory analysis of external characteristics and gonad and gut contents has provided the partners with a clearer understanding of the

Miss Le Thi Mung collecting SRS samples in Vietnam (photograph by Elsa Amilhat)

biology of these species in the local environments. This information has been fed back to farmers in workshops, along with information on the livelihood data collected from households over the same 12 month period.

Breakthrough in catfish disease diagnosis

Analysing catfish samples

Pathological descriptions now available for a disease that was first reported in 1999 and has continued to have significant impact on a newly emerging aquaculture production system. If applied correctly this data should help confirm diagnosis of BNP (bacilliary necrosis disease in *Pangasius*) outbreaks in future populations.
A working case definition for the disease BNP was established which has proved applicable at the researcher, extension and farmers level. With good potential for rapid disease reporting hence reducing the impact of fish losses within infected stocks.

Farmers taking the initiative on environmental constraints to freshwater and marine aquaculture (TROPECA Project)

In Xuan Tu Village, Khanh Hoa, Vietnam, lobster farmers have already expressed strong interest in helping with the research: recording their own activities; monitoring simple indicators of water and sediment quality; and discussing strategic solutions to crowding of lobster and snail cages. They have already brought these issues together with a parallel initiative on local marine protected areas through a local marine management committee. A small NGO (IMA), supported by local government and international funding, has been actively engaged in strengthening local marine area management initiatives, including a local marine protected area. This has led to the formation of a local committee to address broader marine environmental management issues. TROPECA will be able to build on this initial successful initiative, broaden its scope, and help to further strengthen the associated institutions.

The project is also actively collaborating with partner NGOs in Bangladesh and, with a major Danida funded aquaculture support project in Vietnam (SUMA).

Researching the limit

To learn more about the any AFGRP project, follow the link under 'projects' on the AFGRP website http://www.dfid.stir.ac.uk/afgrp