

# I heard it on the fishing line ...

## self-recruiting species project dissemination phase

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Findings of this research illustrate the critical importance of self-recruiting species (SRS) to poor people in rural areas. Its importance is dictated by several factors like the availability of perennial water bodies, intensity of aquaculture and agriculture activities and the seasons. Options for managing SRS were also identified in this research. Local resources user group (LRUG) was tested to manage a common aquatic resource by community groups.

The incorporation of SRS in conventional polyculture systems was also tested and found to be beneficial, with no measurable negative impact on the production of stocked species at low input levels. Avoidance of negative actions towards SRS like use of pesticides and damaging harvest of brood fish have been strongly emphasised by the trials.

The 'Self-recruiting species in aquaculture – their role in rural livelihoods' was completed in September 2004. The project evaluated the importance and role of SRS from farmer managed aquatic systems (FMAS) to the overall livelihoods of the rural poor in five sites (Southeast Cambodia; Northeast Thailand; Red River Delta of Vietnam; Bangladesh; and West Bengal in India). The team are now working on dissemination of project findings to more

Southeast Cambodia	Northeast Thailand	Red River Delta Vietnam	Bangladesh	West Bengal India
<i>Channa sp.</i>	<i>Channa sp.</i>	<i>Anabas sp.</i>	<i>Clarias batrachus</i> (Walking catfish)	<i>Channa orientalis</i>
<i>Clarias sp.</i>	<i>Anabas sp.</i>	<i>Clarias sp.</i>	<i>Anabas testudineus</i> (Climbing perch)	<i>Channa punctatus</i>
<i>Anabas sp.</i>	<i>Clarias sp.</i>	<i>Channa sp.</i>	<i>Heteropneustes fossilis</i> (Stinging catfish)	<i>Ctenopharyngodon mola</i>
<i>Macrognathus sp.</i>	<i>Mystus sp.</i>	<i>Carassius auratus</i>	<i>Puntius sp.</i> (Barb)	<i>Mystus sp.</i>
<i>Rasbora sp.</i>	<i>Monopterus sp.</i>	<i>Hemibagrus sp.</i>	<i>Macrobrachium sp.</i> (Fresh water prawn)	<i>Puntius sp.</i>
<i>Esomus sp.</i>	<i>Puntius sp.</i>	<i>Misgurnus sp.</i>	<i>Chana punctatus</i> (Spotted snakehead)	<i>Tilapia sp.</i>
<i>Barbodes sp.</i>	<i>Rasbora sp.</i>	<i>Macrobrachium sp.</i>	<i>Mystus vittatus</i> (Catfish)	
<i>Trichogaster spp.</i>	<i>Esomus sp.</i>	<i>Sinotaia sp.</i>	<i>Chana striata</i> (Snakehead murrel)	
<i>Rana sp.</i>	<i>Rana sp.</i>	<i>Somanniathelpusa sp.</i>	<i>Amblypharyngodon mola</i> (Mola carplet)	
<i>Macrobrachium sp.</i>	<i>Macrobrachium sp.</i>		<i>Lepidocephalichthys guntea</i> (Loach)	
<i>Somanniathelpusa sp.</i>	<i>Sinotaia sp.</i>			
	<i>Somanniathelpusa sp.</i>			

organisations. Household level, community level and policy level actions have been identified.

In order to increase the potential for impact, these recommendations are being actively disseminated. In Bangladesh, ITDG (Intermediate Technology Development Group),

### Dissemination strategy

To be able to achieve the main goal of the dissemination phase of increased awareness of different stakeholders about the role and importance of self-recruiting species, the following are the strategies:



farmers in target areas and policy makers in each of the target countries.

With the research project demonstrating the importance of SRS, particularly for the poorest households recommendations are being made that SRS be considered in any aquaculture plan by government institutions; research organisations, NGO, and other development



who carried out the research, but who have strong development linkages are responsible for dissemination activities. The Aquaculture Division of the Department of Fisheries in Cambodia is the organisation responsible for coordinating dissemination activities; STREAM and partners in northern Vietnam and India; rural development specialists involved in the research are leading this phase in Thailand.



1. Distribution of SRS related materials
  - a. Summary project report - to researchers, government agencies and development organisations
  - b. Better Practice Guidelines – in local language to farmers and extension agents. (i) Local resources user group (ii) SRS management with carp polyculture
  - c. Policy briefs – to policy makers, donors and senior researchers

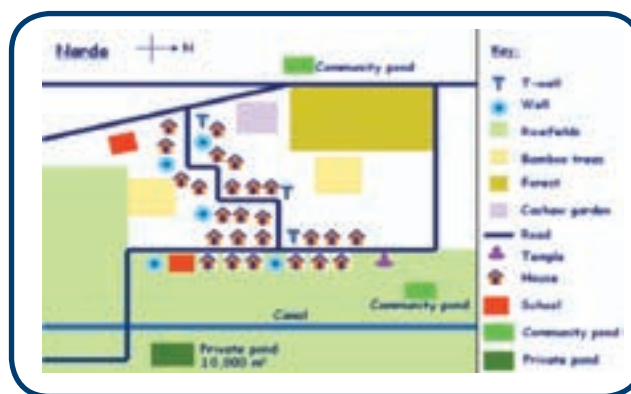
# Reading between the lines of data: analysing aquatic animal consumption in West Bengal

**Helen Sturrock**

- Curriculum workshops  
The findings of the project are being presented to schools and colleges providing training on aquaculture to encourage them not to think of SRS as a bad thing.
- National and provincial workshops  
This activity allows the presentation of the importance of SRS to rural livelihoods to a wider audience, with a focus on non-aquaculturists.
- Awareness campaign  
Using different forms of media to increase awareness about SRS. Radio and television (including BBC World) have been used.
- Attendance to meetings and conferences.  
Researchers have presented at international conferences and technical meetings e.g 7th Asian Fisheries Forum and FAO Technical Expert Meeting on aquatic biodiversity and National Fish Fortnight event in Bangladesh (Aug 2005).
- Webpage  
Most of the SRS information such as posters; policy briefs; project technical report; project summary reports are now available in AFGRP website.



Self-recruiting species (SRS) include all those species that survive and reproduce in farmer managed systems, such as ponds and ricefields, without being restocked – i.e. they are self-recruiting. SRS include many fish species, prawns and shrimps, crabs, snails and frogs. Where these and other species occur in wild systems, such as rivers and lakes, they are classed as wild species. Any species that are restocked by farmers are classed as cultured species.



The research included interviews with 12 households in each of four different villages in West Bengal. They shared with us, amongst other things, information on their consumption habits, their aquatic animal collection and purchases, and preferences for different species due to taste, ease of collection etc. They also helped draw maps of their villages, showing all the local water resources, their houses, ricefields and ponds. Here we have included an electronic interpretation of a map of one village.

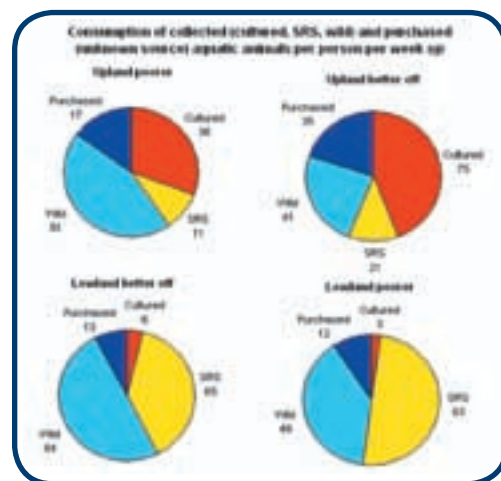
The data from these four communities in West Bengal showed that reliance on SRS seemed more linked to area than wellbeing status, which was a different conclusion than for the other countries surveyed for the study. In Thailand, Cambodia, Vietnam and Bangladesh, data showed that SRS from farmer managed systems (ponds, ditches and rice fields) are most important in upland areas where other waterbodies (lakes, canals) are limited.

However, the West Bengal data did not reveal the same trend. In the pie-charts included here, SRS consumption (in yellow) makes up around half of the total aquatic animal consumption of lowland households

surveyed, but only 10-12% of upland consumption. Upland households appear to rely more on cultured and wild aquatic animals. So why the difference? In the upland areas there are very few water resources and these are typically connected to rice fields for relatively short periods of the year. Where ponds do exist they are not usually connected to the wider rice field system and there is a concentration on culturing carps. There is also a greater occurrence of large reservoirs and canals where catches are considered 'wild'.

Data collected on which species of SRS are eaten shows that lowland households eat fish, prawns, snails, crabs and eels, but upland households eat only fish and prawns. An initial technical explanation maybe

that these species do not occur or that different culturing methods prevent SRS from moving between waterbodies, but in this project we also collected socio-cultural



data and that information highlights strong cultural reasons why most households in the upland communities do not eat snails, crabs and eels. However, there are still opportunities to increase the availability of the preferred fish and prawns using ideas like (i) conserving some water and broodstock in ponds in the dry season and (ii) not using chemicals to remove SRS from culture ponds before stocking.

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