

AQUACULTURE COMPENDIUM – CAB INTERNATIONAL

Case Study

TITLE OF CASE STUDY:	“Helping ourselves” - the role of self-help groups in poverty alleviation through aquaculture
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SUMMARY

Self-help groups (SHGs) are ways for farmers and fishers, especially those who are poor, to come together and work together. They can be a useful entry point for outsiders, promote a supportive local environment, strengthen voices in decision-making and in negotiations with more powerful forces, increase the effectiveness of local actions, and provide easier access to micro-credit and other resources and services.

This case study describes a rural aquaculture development context, in India, the development of SHGs and the concept of a ‘one-stop aqua shop’, set up and run by a federation of self-help groups in Kaipara village, West Bengal (a pilot state along with Jharkhand and Orissa). It outlines testing new ways to share information, as part of a series of revised procedures and institutional arrangements for service delivery recommended by farmers and fishers and prioritized by government, with support from the Department of International Development, London (DFID) Natural Resources Support Programme (NRSP) and the Network of Aquaculture Centres in Asia-Pacific (NACA) to the Support to Regional Aquatic Resources Management (STREAM) Initiative.

BACKGROUND

India is home to one third of the poorest people on earth, and has the largest concentration of tribal populations in the world. Under the Indian Constitution, such groups are referred to as ‘scheduled tribes’, sometimes known as *adivasis* (or ‘first settlers’, somewhat like aboriginal peoples in Australia). Others are designated as ‘scheduled castes’; scheduled castes and tribes and the so-called ‘other backward classes’ make up most of the poor and marginalized in Indian society. For a long time now, voices have been raised in support of disadvantaged social groups that are trying to derive a livelihood from limited resources in remote rural areas in India. Many government schemes have tried to make provisions for their ‘upliftment’. Yet in the gently undulating hills of rural West Bengal, a quiet revolution of self-determination is under way; talented people in need are themselves taking control of their future.

With limited arable land and dwindling forest resources, many are beginning to look again at the seasonally stored water around their villages, to try to derive a living near their homes, and avoid the need to migrate seasonally to find work as labourers. Fishers and farmers working together in groups, spurred on by their early successes with small-scale raising of fish, have begun building a mutually supportive federation of self-help groups. Their efforts are providing, and also drawing in, the support services they need, and even beginning to influence policies which impact on their livelihoods.

The SHGs of Kaipara, the DfID NRSP Research Project R6759, together with the Eastern India Rainfed Farming Project began experimenting with small-scale aquaculture in seasonal ponds. The NACA STREAM Initiative and the DfID NRSP Research Projects R8100 and R8334 have been instrumental in catalyzing new approaches to communications and learning amongst disadvantaged groups and people who aim to support them to conduct aquaculture, from the government and NGO sector. In October 2004, STREAM revisited Kaipara and addressed the federation's bi-monthly meeting to express their support and admiration for the development of the 'one-stop aqua shop' in Kaipara, and to highlight the launch of the STREAM Initiative's 'One-Stop Aqua Shop Information Service' (OASIS), which is sharing information resources in local languages, including videos, street-plays, the STREAM Journal and materials developed from other farmers and researchers in India and elsewhere.

The federation of self-help groups and their one-stop aqua shop is a new model for development communications where farmers build groups, link up and develop local service centres which act as a beacon for other service providers. It is what people asked for; it has become a government priority; the initiative is with farmers and fishers; it is a new and efficient way to communicate; and it is happening right now to great effect.

DESCRIPTION OF ISSUE OR PRACTICE

A True Story about Kaipara Village

Kaipara Village lies in Barabazar Block of Purulia District in West Bengal State, approximately 34 km south of Purulia town and 24 km northeast of Barabazar. The village is 15 km away from the Barabazar-Purulia tarmac road.

About 1,200 people live in Kaipara in nearly 200 households, while another 80 households live in the neighbouring hamlets (*tolas*) at Khamar Tanr and Gunsaipua Tola. The population is made up of a number of different ethnic groups including Mahatos. The Mahato ethnic group is classified in India in a category referred to as Other Backward Classes (OBCs), the scheduled tribe Oroan, and the scheduled castes Ruhidas, Sahis and Kalindi.

On our last visit on a sunny October Saturday, toward the end of the rainy season, the road was muddy but the seasonal tanks (ponds) were full.

Poor Health, Limited Education, Few Options

Many people in the cluster of villages at Kaipara have had little schooling; currently around half of the men can read (improved from 40% a few years ago), though less than one-third of women can (improved from 12% a few years ago). People here have long suffered health problems too, related to malnutrition, diarrhoea, skin disease, malaria and anaemia (especially among women). For many years, families which could not produce enough food for the whole year (about 75% of villagers) had two options. When all sources of production and income failed to fulfill their requirements for food, they could borrow rice from richer families, so-called "paddy lending" known locally as *dadan*, for which they would pay 50% interest, for a period ranging from 2-6 months; or they could migrate for work. Villagers were often forced to migrate, mostly for 4-6 months, leaving behind older household members, or women with children, to take care of

houses and cattle. Migration is thought of as a social scourge among remote communities in eastern India, with migrant workers often reporting exploitation.

Building Groups to Overcome Difficulties

In common with the Bengali village of Jabarrah (see [The Jabarrah Story at www.streaminitiative.org/Library/pdf/pdf-india/jabarrah.pdf](http://www.streaminitiative.org/Library/pdf/pdf-india/jabarrah.pdf)), a project of the Hindustan Fertilizer Corporation offered support to Kaipara in the early 1990s. Then in 1995, the Indian fertilizer cooperative, the Krishak Bharti Cooperative (KRIBHCO), in partnership with DfID, took on the task of encouraging people to come together in groups to plan how to proceed, through the jointly-managed East India Rainfed Farming Project. The process, which the development specialists referred to as “building social capital”, involved dedicated community organizers like Mr SK Mahapatra and Mr G Dutta, to provide a high degree of motivation and awareness campaigning within the community, to help groups to form, and begin to work together around different projects to overcome difficulties and build livelihoods.

There are Significant Difficulties to be Overcome

As well as limitations in education and health, there are significant difficulties to be overcome and few local natural resources on which to build livelihoods. Kaipara has only about 150 ha of paddy land, and there are no forest resources to draw on nearby. Pest and disease damage to crops are frequent, and occasionally serious, occurrences. For example, a brinjal and tomato viral disease in successive years has reduced farmer motivation to invest in these crops. In the staple paddy crop, leaf burning has become a major disease during recent years, while stem borers in paddy and pod borers in pigeon pea are common problems every year.

All livestock in Kaipara village are indigenous breeds, reared in extensive low-input systems, and let out to graze or forage for food, and all are affected by seasonal fodder shortage. Animal health problems are prevalent in the monsoon season, though sickness and mortality occur all year, with dramatic increases during periodic epidemics. Access to the state veterinary service is limited, so although cattle are an essential investment, their loss can be a serious shock to local livelihoods.

The moderate rainfall of around 1,200 mm, locally concentrated in 4 months (June to September), is also variable between years, with failure of the rains occurring as often as once in 4 years. Recent problems occurred in 1988 and 1993 when upland cropped areas were mostly affected.

Multiple Uses of Resources and Finding a Niche for Change

Because of the industry and inventiveness of people in Kaipara, almost all resources have multiple uses, the livestock and tanks referred to above being two examples. The cattle and buffaloes serve the farming system as draught animals, produce manure for soil fertility, provide milk and act as a source of emergency cash (after first selling poultry or goats). Goats are also sometimes consumed by households on special occasions, while poultry is more commonly eaten.

Tanks are constructed to cope with the general context of water shortage, and the inconsistent supply. Thirty-six small tanks store water in and around this cluster of

villages. So the tanks in which fish culture is now practiced also conserve rain water and are used for irrigation, bathing and also to bathe livestock.

With so many difficulties to overcome in such inter-related systems, it is difficult to find a niche for change. Some crops have been successful, for example the local (long duration) black gram (a pulse crop, split to form a kind of *dal*), which can compete with grass in unbunded upland areas, and *rabi* (wet) season mustard varieties have met with some success. Most successful has been fish culture in tanks, which has brought considerable benefit to SHGs. Although many of the tanks are only seasonally filled, it is this resource and the capacity of people in Kaipara to work together that has given rise to a change in circumstances, the benefits of profitable ventures, and better nutrition.

Why Fish Culture is a Popular Livelihood Option

We all make decisions in our own lives, based on our own circumstances, and each one of us has a different set of criteria and reasons for the choices we make. However, there are three consistent and powerful reasons why fish culture is a popular livelihood option in rural areas of West Bengal and neighbouring states. The first is that people who are food producers have greater food security than those who have to purchase it. Everyone in Kaipara is aware of the sometimes painful, practical steps that individuals and families need to take to secure enough food, through migration, or other means.

So it is no surprise that livelihood options involving food production are eagerly sought. Some of the older inhabitants remember, just before gaining independence from Britain, the Great Bengal Famine. Though no one agrees on just how many millions of people died across the state, everyone agrees it was people from rural areas who were most vulnerable. The least able to secure entitlement to food were wage labourers (as food prices quadrupled compared to labour rates). Many people became destitute and while food was available to those able to purchase it, many starved to death. Food security remains a powerful reason to be a food producer, which provides both a livelihood and a potential life saver.

The second reason is that small-scale fish production is known to be successful. SHGs in villages in West Bengal, including women's groups, such as the Bamu Mahila Samiti and Khamatam Mahila Samiti, and men's groups including Khamatarn Navatarun Sangha and Kaipara Nabayub Sangha, in Kaipara, were supported by DfID NRSP (Research Project R6759 "Integration of Aquaculture into the Farming Systems of the Eastern Plateau of India", (1997-2000). See <http://www.streaminitiative.org/Library/India/india.html>) to try out small-scale fish farming in seasonal tanks. Farmers and scientists were pleased with the results of their joint work. News of the research spread through conversations in tea shops and group meetings of farmers locally, raising awareness of fish production as a livelihood option, even in their own seasonal water bodies. Equally important, news of the research spread through the academic community in published papers, raising awareness of aquaculture options for poorer people without access to perennial tanks (an issue not generally recognized by fisheries departments or supported by government schemes).

The third reason is that fish is popular, and an important part of people's diets. Bengalis love to eat fish, and meat and fish form part of the normal diet of tribal communities in eastern India. Low-input fish culture not only provides an opportunity for income generation but also locally-supplied animal protein, healthy fish oils and a range of

vitamins and essential minerals, which are found in few other foods. Fish contains large quantities of what nutritionists refer to as high “biological value” protein, i.e. they are good for you and a significant addition to vegetable proteins. Proteins in fish contain the essential amino acid lysine, which is found in only small amounts in local cereals like rice, wheat and maize. No wonder rice and fish together play such a dominant part in Bengali culture.

Farmers and Fishers who Want to Raise Fish Need a Range of Support Services

Although fish is popular and nutritious, and fish culture is known to be successful and an important contribution to food security, a range of factors still influences the opportunity to successfully use water resources (especially tanks) for aquaculture. These can often involve a wide range of stakeholders.

Obviously there are owners of a tank (which can include government, community, kin groups and individual households); using water may involve stakeholders other than owners, while general access to a tank may involve the whole community. Disputes over access and leasing rights can emerge and may constrain aquaculture in a water body for many years. Farmers and fishers who want to raise fish also need a range of support services, like practical information, materials and labour to get started, money and help when things go wrong. Most districts have some professionals who can help. There are District Fisheries Officers, rural banks and their managers, and friends and family. The truth is there are many small tanks and many remote communities, and not so many support people to service all their needs.

SHGs Federate Around an Effective Niche for Change

What is special about Kaipara is that most recently they have founded a federation of SHGs that work together to develop their own support network and to draw in the support of others. This is a sophisticated ‘home-grown’ support infrastructure that is the subject of this story.

Mr Kuddus Ansary, who lives with his family in Khamar Trah village near Kaipara, became the *jankar* (a farmer who has received specialist training and who usually heads a farmers group) of Khawasdih Naba Dipti Sangha, a SHG that decided to grow fish in seasonal tanks.

He learned how to raise fish and contributed to, and enjoyed the success of, working together effectively with others. Kuddus is a talented communicator, skilled at encouraging groups to work together. As the Gramin Vikas Trust (GVT) developed its strategy to share the lessons of group building, he became an Extension *Jankar* with the NGO, encouraging a scaling-up to other neighbouring villages of the process that KRIBHCO and DfID and then GVT had followed. As Kuddus moved from village to village, it became clear to him that just as people benefit from working together, so SHGs would benefit from working together. Kuddus shared his dream of helping SHGs to federate around an effective niche for change. In January 2004, after much discussion and negotiation, a federation of more than 70 SHGs was formed. Currently making up the federation are 174 men and 890 women, which proudly includes 14 SHGs belonging to so-called “below poverty line” groups. Among the groups there are more than 300 tanks where fish culture is planned or already underway. The species cultured are the Indian major carps, catla (*Catla catla*), mrigal (*Cirrhinus mrigala*) and rohu (*Labeo rohita*), the Chinese carps, bighead carp (*Aristichthys nobilis*), grass carp

(*Ctenopharyngodon idellus*) and silver carp (*Hypophthalmichthys molitrix*), and common carp (*Cyprinus carpio*). The federation has a 40-member General Body and an elected Steering Committee of 11. In February, 200 federation members attended a *kisan mela* (farmers' fair) in Bajra Cluster and sang the prestigious inaugural song, *Udbodhan Sangeet*.

Working to Give Farmers a Voice in Policy Change

The STREAM Initiative, which is working in India to contribute to “giving farmers a voice” in policy change, is investigating how to take forward prioritized recommendations for change. Recommendations have emerged from widespread consultations and consensus-building with farmers, fishers, state and national fisheries policy-makers, shapers and implementers. Kaipara's Kuddus Ansary continues to play a leading role in the STREAM initiative effort, which included communicating farmers' recommendations to policy-makers. In January 2004, Kuddus attended a DfID NRSP workshop organized by STREAM to plan the formation of pilot single-point under-one-roof provision of services (one of the priority recommendations to emerge from consultations and consensus-building).

Before attending, a meeting had been held in Kaipara in which farmers discussed how Kuddus would represent the federation at the workshop. At this meeting, farmers agreed that the federation would be highly suitable to operate such a service.

At the workshop, Kuddus Ansary put forward his suggestion that a pilot one-stop aqua shop (OAS) (as the workshop called it) should be established by the federation. Other suggestions for pilot locations were also put forward, including the Jharkhand Department of Fisheries (in Ranchi), the Central Institute for Freshwater Aquaculture (in Bhubaneswar, Orissa) and an Orissa Government project in the western districts of that state.

Following the workshop, two STREAM India staff and a colleague from GVT spent 4 days visiting Kaipara to further discuss the suggestion with the federation, local banks, and government and non-governmental support agencies. STREAM and NRSP agreed to support a workshop to be hosted by the federation in Kaipara to help to mature the relationships between the federation, banks and other agencies. At that workshop, Kuddus highlighted how the OAS would change the way that information was made available to farmers and make the process of starting aquaculture more efficient. Farmers could see how this would mean less journeying around, chasing information on fish culture, suppliers, government schemes and micro-credit. Support agencies could also see how this could make their efforts more efficient, and began to pledge their support. Exactly 1 month later, the Steering Committee of the federation passed a resolution that launched the OAS in Kaipara.

Funding and Sustaining the Service

Each SHG has invested 2,000 Rupees (about US\$ 27) from their group funds to provide operating capital. One of the services that the OAS Kaipara is offering is the supply of fish fingerlings. Farmers with seasonal tanks need fish fingerlings as early in the season as possible to get a crop before the water dries up. Increasing the supply of fingerlings early in the rainy season is another of the priority recommendations of farmers highlighted through the NRSP STREAM consultation and consensus-building process.

To start it off in 2004, two tanks have been leased by the federation for nursing fish fry to fingerlings. These have so far supplied about 25,000 fingerlings to farmers in a 3 km radius, with discounted rates offered to federation members. People are already coming to buy fingerlings from up to 24 km away but the federation is cautious about promising what it can supply. "The emphasis is on building a reputation for quality," says Kuddus. The federation estimates that the local market for fingerlings is 1,000,000, and their first aim is to develop the OAS capacity to supply half this total.

In another action to help SHGs establish aquaculture, and also to sustain the OAS service, six all-women's groups in the nearby village of Salgati are being supported to raise fingerlings for sale in ten tanks. The arrangement being tried is that 50% of the benefit will go to the groups, 25% to the tank owner and 25% will go back to the OAS in lieu of the fingerlings it supplies.

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CONTEXT

COUNTRIES

India

CULTURED SPECIES

<i>Aristichthys nobilis</i>
<i>Catla catla</i>
<i>Cirrhinus mrigala</i>
<i>Ctenopharyngodon idellus</i>
<i>Cyprinus carpio</i>
<i>Hypophthalmichthys molitrix</i>
<i>Labeo rohita</i>

GROWOUT PRODUCTION SYSTEMS

Tick	Growout system
<input checked="" type="checkbox"/>	Ponds

PARTICIPANTS

Organizations

Organization	Address	Web Address (URL)
One-Stop Aqua Shop	One-Stop Aqua Shop Kaipara, Purulia West Bengal, India	
STREAM Initiative	c/o Network of Aquaculture Centres in Asia-Pacific (NACA) Suraswadi Bldg., DOF Complex Kasetsart University Campus Ladyao, Jatujak, Bangkok 10900 THAILAND	http://www.streaminitiative.org
NGO Gramin Vikas Trust	192 Kanke Road, Ranchi, Jharkhand India	
STREAM Communications Hub	streamindia@sancharnet.in	http://www.streaminitiative.org/india

For more information about OASIS, contact Rubu Mukherjee at the STREAM India Communications Hub streamindia@sancharnet.in

The One-Stop Aqua Shop in Kaipara was established by Ms Aloka Mahato, Gosaidih Madhyapara Gram Unnayan Mahila Samiti; Ms Purnima Sarengi, Vegari Mahila Samiti;

Ms Urmila Tudu, Salghati Bidu Chandan Mahila Samiti; Ms Alpana Mahato, Bhagini Nivedita Mahila Samiti; Ms Urmila Tudu, Sidhukanu Mahila Samiti; Mr Satya Mahato, Raghunathpur Mahila Samiti; Ms Jilapi Kalindi, Kaipara Mahila Samiti; Mr Nidhiram Mahato, Kaipara Kishore Sangha; Ms Arati Mahato, Bhabanipur Mahila Samiti; Ms Puspa Mahato, Bamu Mahila Samiti; Mr Monoranjan Mahato, Gosaipua Millan Sangha; Ms Mamta Mahato, Gosaipua Mahila Samiti; Mr Kuddus Ansari, Khawasdih Naba Dipti Sangha; Ms Bela Mahato, Sukurhutu Matara Mahila Samiti; Ms Himani Mahato, Sukurhutu Matara Mahila Sangha; Mr Chakradhar Mahato, Khamartar Nava Tarun Sangha; Ms Manabala Mahato, Khamartar Mahila Samiti; Mr Surmali Ansari, Palma Sabuj Sangha; and Ms Nirala Murmu, Salghati Mahila Sam.

For more information about building social capital, please contact the Eastern India Rainfed Farming Project or the (Amar Prasad, CEO, or J S Gangwar Additional CEO, at GVT Noida) or Virendra Kumar Vij, the Project Manager of GVT East in Ranchi, Jharkhand.

Individuals

- Development Agents - Government and Non-Government
 - Extension officers
 - Development specialists
 - Planners
 - Local
 - Regional
 - Policy makers
 - Local
 - Regional
- Research, Education & Training
 - Researchers

ISSUES

- Production systems: technology and its management
 - Seed
 - Species availability and seed supply
- Food security
- Extension
- Livelihood issues
- Poverty alleviation
- Success in R & D

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Tripathi SD, Haylor G, Savage W, 2003. Back to Jabarrah - A closer look at the evolution of successful Aquaculture Self-Help Groups in rural West Bengal, the discovery of new uses for local resource systems and the energizing effect of flexible rural credit. Written in consultation with Jagdish Saran Gangwar, Virendra Singh, Gautam Dutta and Prabhat Kumar Pathak. Online. <http://www.streaminitiative.org/Library/India/india.html>

TEXT SECTION

Summary

Background

Description of Issue or Practice

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 Building Groups to Overcome Difficulties
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 Farmers and Fishers who Want to Raise Fish Need a Range of Support Services
 SHGs Federate Around an Effective Niche for Change
 Working to Give Farmers a Voice in Policy Change
 Funding and Sustaining the Service

ILLUSTRATIONS

Pic No.	Please supply a clear, descriptive caption for each illustration (supply on a separate sheet if necessary)	Type: Slide Print Artwork?	Rights to illustration held by?	Immediate return required? (please tick)
1	Children in Kaipara village West Bengal	.bmp	G Haylor	
2	Kaipara Village, West Bengal		G Haylor	
3	Cast netting in Kaipara nursery pond		G Haylor	
4	Nursery tank stakeholders, Kaipara		G Haylor	
5	Kuddus Ansary presenting in Jharkhand state		W Savage	
6	Federation General Body meeting		G Haylor	
7	Kaipara One-stop Aqua Shop		G Haylor	