

STREAM



Support to Regional Aquatic Resources Management



**DFID NRSP Research Project R8100
Investigating Improved Policy on Aquaculture Service Provision to Poor People
March 2002 – May 2003**

Case Studies

**In Association With
Gramin Vikas Trust (GVT)**

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to Poor People

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Mr Ashish Kumar, Mr B K Sahay, Dr K P Singh, Dr S D Tripathi,
Mr Gautam Dutta, Ms Jhinuk Ray, Dr Graham Haylor and Mr William Savage

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We would like to thank all colleagues and friends who made these Case Studies possible:

People in communities who took time from their lives to help us understand.

Government officials who shared their experiences with us.

GVT staff and officers who facilitated the conduct of the Case Studies in communities where GVT has had so much success.

Participants in each of the workshops where the ideas for the Case Studies originated and when each person gave essential feedback on their progress.

Progress of the Case Studies

The six Case Studies published here grew in concept and content throughout the Project period. To follow the progress of the Case Studies, excerpts have been taken from previous Project documents, and adapted for the purpose of showing how they changed from an initial idea to the form in which they appear here and were presented finally at the Policy Review Workshop in Noida, Delhi, in April 2003. Each of the studies is different in focus and format. Written texts of all six appear in this publication, which – along with respective Case Study PowerPoint presentations and film documentaries – are also included on the CD-ROM containing all Project documentation.

Inception Report

In the original Project Workplan (Table 3 of the Inception Report – May 2002), it was written that from July 2002 through February 2003, the Project would “[C]onduct Case Studies (1.3¹) in tribal areas, highlighting service provision from recipients’ viewpoints, and eliciting recommendations for change”. These would be carried out “[I]n Jharkhand, Orissa and West Bengal, in collaboration with GVT, DOF and FFDA, facilitated so that service recipients ‘can be given space to explain how it is for them’, using a variety of media and local languages.”

Rural Aquaculture Service Recipients and Implementers Workshop

The “central” of the three parallel strands to follow this workshop, and to inform each other and subsequent project activities, is a set of Case Studies. A number of these, using a variety of media, will be commissioned (funded by the project) in Jharkhand, Orissa and West Bengal.

It was pointed out that the purpose of the Case Studies is to show people’s experiences of aquaculture service provision from their perspective, about specific issues, with specific groups of fishers, farmers and other relevant “actors”, in Schedule Tribe, Scheduled Caste and “Backward Class” communities. Participants were asked to suggest the sorts of issues which need deeper understanding, the groups whose “voices” would be documented in the studies, the organizations and agencies which could conduct the studies, and the methods and media which could be used.

Participants were [grouped] according to states, with a cross-section of “stakeholders”, since these would be the colleagues who would potentially be working together to carry out the studies. Their responses are in Appendix 10 of Rural Aquaculture Service Recipients and Implementers Workshop – May 2002.

The groups came up with numerous issues. These [were] reviewed as to their relevance to people’s experiences of service provision and the most appropriate ones selected. A contact person [was] identified to liaise with those organizations, agencies and persons who will collaborate in doing the Case Studies.

¹ Activity 1.3 in the Project Flowchart (Appendix 4) and Logframe (Revised 26-04-02) (Appendix 5), both in the Inception Report – May 2002)

Proposals for Case Studies [were] elicited, with detailed descriptions using the basic framework shown in Appendix 10, with workplans and budgets.

It [was] necessary to build on the suggested methods and media in order to develop creative ways of documenting people’s experiences of government aquaculture service provision, beyond the “conventional research methods” of, for example, surveys and questionnaires.

Planning Visit

These six Case Studies were set up during the Planning Visit together with those from GVT and the Departments of Fisheries who will carry them out with service recipients and providers. [The six titles chosen for the Case Studies were:]²

1. A Proactive Village – In Support of Aquaculture for Poor and Scheduled Caste Groups (Jharkhand)
2. A Progressive Farmer – A Successful Tribal Village Conducting Aquaculture (Jharkhand)
3. Group-building, Production Success and the Struggle to Prevent Capture of the Resource (Jharkhand)
4. Contrasting Case Studies of Service Provision and Participation (Orissa)
5. Recipients’ Experiences of Services Provided by NGOs in Support of Aquaculture for Poor and Tribal Groups (West Bengal)
6. Service Provider’s Perspectives on the Implementation of Government Schemes in Support of Aquaculture for Poor and Tribal Groups (West Bengal)

The following six Case Study “terms of reference” contain preliminary descriptions of:

- Duration
- Location
- Key Informants
- Method
- Media
- Content
- Budget

[The descriptions which followed appear on pages 13-24 of Rural Aquaculture Service Recipients and Implementers Workshop – May 2002. These evolved over the Project period and can be read in their ultimate forms at the beginning of each of the Case Studies published here.]

State-level Workshops

An important objective of the State-level Workshops was “providing feedback on [the six] Case Studies which document experiences of rural aquaculture services provision from the perspectives of representative recipient groups”. [Participant feedback on the Case Studies appears in Appendix 3 of State-level Workshops – October 2002.]

² The numbers of Case Studies 3 and 4 have been switched from previous documents, to keep the Jharkhand ones together and the whole set in alphabetical order by state and title.

Indeed, the wisdom of the May 2002 workshop recommendation – that there needed to be these State-level Workshops – was borne out in the constructive feedback on the six Case Studies in their various stages of progress.

Feedback on the Case Studies

In each of the three states, the respective Case Study descriptions (from the Planning Visit report) were translated and provided to participants for review and feedback. The Case Study descriptions [following on pages 8-29] in State-level Workshops – October 2002 [were] revised to reflect discussions in the workshops, but all the feedback ha[d] not yet been fully incorporated. Likewise, there [were] pieces of text (indicated by state below), that [were] included in their original form. These two tasks [were] accomplished as the Case Study descriptions [were] prepared in full before the Stakeholders Workshop. In addition, Principal Investigators ... need[ed] to interpret the preliminary findings of the Case Studies in terms of issues which have policy change implications. These [were] then ... input to the Consensus-building Process.

West Bengal (Case Studies 5 and 6)

Dr Tripathi met with GVT staff, Jankar and community participants to discuss the description of Case Study 5. Mr Ashish Kumar met with the DOF participants to discuss Case Study 6. These served as a planning discussions since these two Case Studies were not yet under way.

It was decided that Mr Gautam Dutta and Ms Jhinuk Ray would work with Dr Tripathi as Co-Principal Investigators. For Case Study 5, it was also decided that the research teams would be comprised of the Principal Investigators, GVT Community Organizers, Jankars and villagers.

Jharkhand (Case Study 3)

Mr Pandeya, the Principal Investigator along with Dr K P Singh, presented the description of Case Study 3 and the preliminary findings. The two pieces of text [were] appended to the descriptions following. For the purposes of providing feedback on Case Study 3, participants were asked to work in groups of:

- Recipients
- Jankars
- Birsa Agricultural University-NGOs-DOF
- GVT

Jharkhand (Case Studies 1 and 2)

Mr Ashish Kumar, Principal Investigator, presented the descriptions of Case Studies 1 and 2. The two draft storyboards of the video documentaries follow the respective descriptions. Participants gave feedback from groups of:

- GVT CO
- Recipient
- Jankars

Orissa (Case Study 4)

Mr Sahay and Mr Pandeya, Principal Investigators, presented the description of Case Study 4. The text of their preliminary findings follows the description ahead. Participants worked in six groups to review the case and provide feedback:

Dhenkanal and Keonjhar Jankars
Mayurbhanj Jankars
DOF
NGOs
GVT Community Organizers
GVT Project and State staff

Stakeholders Workshop

The first day of the workshop, and part of the second morning, were devoted to presentations of the six Case Studies which form a core element of the project. Following each set of two Case Study presentations, participants worked in ... eight groups to provide feedback (Appendix 3 of Stakeholders Workshop – January 2003). Most of the feedback was about policy recommendations, which seemed to be of most concern to participants. Where there were specific suggestions about changes to the Case Studies themselves, these [were] noted in bold italic print in Appendix 3. In particular, it was suggested that the Case Studies should provide clearer information on indicators of livelihoods and income. During the whole group discussion, it was noted that each of the six Case Studies is looking at service provision from a particular perspective. For example, Case Studies 1 and 2 feature particular individuals and communities. Perspectives from other sectors such as banking emerge from Case Study 6. Thus, the variety of Case Studies will provide a range of perspectives on experiences of service provision.

The feedback on the Case Studies [was] incorporated into the presentations by the Principal Investigators before being finalized and published for the Policy Review Workshop in April in Delhi.

1. A Proactive Village – In Support of Aquaculture for Poor and Scheduled Caste Groups (Jharkhand)

Principal Investigator

Mr Ashish Kumar, Deputy Director
DOF, Ranchi, Jharkhand

A film documentary of this Case Study is included on the Project CD-ROM. The English version of the documentary's Hindi script appears on the following pages along with still photographs from the film.

Origin

This Case Study from Jharkhand was proposed by Ashish Kumar, in association with Dr K P Singh, Field Specialist Aquaculture, GVT, Ranchi, Jharkhand, William Savage and Graham Haylor.

Duration

The Case Study began in September following its setting up in August 2002. The fieldwork ran through February 2003, with opportunities to report progress and get feedback on two occasions: the State-level Workshop in October 2002 and the Stakeholders Workshop in January 2003. Final presentation of the Case Study was made at the Policy Review Workshop in Noida, Delhi, in April 2003.

Location

The Case Study location was Fulwar Toli Village, Bundu Block, Ranchi District, where government support to fishermen has been available from the Fisheries Department.

Key Informants

Key informants included Mr Bhim Nayak and fellow fishers of Fulwar Toli, and the officer of the Bundu "notified area" office.

Method

The Case Study methods were individual interviews and small-group discussions, around issues raised by villagers about how government policies are impacting on their livelihoods. As Principal Investigator, Ashish Kumar took charge of organizing and documenting the fieldwork. A professional documentary film-maker from the ETV channel worked Mr Kumar on the storyboard for the documentary, using information from the interviews and discussions, which was fully drafted for comment and recommendations at the October 2002 workshop, supported by photographs. Following the workshop and amendments to the storyboard, the film crew commenced on-location filming and editing to produce a version in time for the January 2003 Stakeholders Workshop. Final editing and production of the film documentary followed.

Content

The Case Study film documentary includes footage and commentary to help policy-makers understand:

The level of development of the livelihoods of the fishing community in Bundu (including their experience of different government schemes)
Their inclusion and exclusion from government schemes (and reasons), including:

- Process for the selection of beneficiaries, including key actors from DOF and the Block Development Office
- Mechanism for provision of loans
- Process for supply of material inputs
- Mechanism for provision of training
- Process for communicating (about government schemes and technical extension messages, any systems for feedback, cross-checking and streamlining the system)
- Marketing support, networking and strategies and the role for farmers, the DOF and banks in decision-making

Film Documentary Script



The Fulwar Toli Village of Bundu Block of Ranchi District is waiting for a package of government schemes. Known as the village of a fishermen's community, the livelihood is today more from daily wage-earning than from the fishing and fishery business. Even 85 out of a total of 115 families are totally dependent on daily wages. Full of natural resources, the village and the fishermen need a guide, philosopher and friend.



Basically, the fishermen do not know anything about the government's encouragement and government's schemes. Due to lack of good education, they do not know whom to meet and where to contact for availing of the facilities of government schemes. This is the reason that they have almost totally diverted from their traditional occupation and opted for piggery, poultry, tanning of hides, drum beating on occasions like marriages, and rickshaw-pulling to earn their livelihoods.



Fisherman: *If I do fishing, then I can't sustain my family, The larger pond is full of weeds and due to excess dirt, all the fish have died ... I am a specialist in fishing ... I can catch any type of fish ... but due to lack of fish ... I pull a rickshaw in the morning.*

Some years back, government officials convinced them about a better future. Even the Scheduled Caste Development Corporation sanctioned loans to them for some activities but, except for the band party business, nothing succeeded. Later some other works were also done. The Department of Fisheries provided 50 brick houses to the fishermen.



Kartik Machhua: *So far Department of Fisheries of the government has given me a house, which I have constructed and when officials come, I show them.*

Some tube wells have also been constructed to provide them with fresh drinking water but because Bundu has been declared as a "notified area", the fishermen have been deprived of so many development schemes.



Bhim Nayak: *Because we live here we are deprived of so many schemes ... which are available to Gram Panchayats ... like IRDP, NREP and Indira Awas (Housing), and our development has stopped.*

It has directly affected their occupation and life standard. Now, no one takes care of them. Even their children are deprived of good education.



Bhim Nayak: *No unemployment allowances ... nothing ... And recently under the income generation scheme ... we have been deprived of the buses distributed to our scheduled tribe brethren by the government ... this is very humiliating.*

Even in most of the other departments of the government, there are limited schemes for these fishermen belonging to scheduled castes. This may be a reason that there is a clear lack of infrastructure for their traditional occupation. There is not even provision for fish culture or a suitable market for selling fish for these people. Often they have to sell fish on the roadside.



Fisherwoman: *We don't get markets ... we sell on the road ... when vehicles come, we have to shift ... we need another place ... if we get a market, it will be better ... then we'll not have to shift.*

Due to a shortage of ice and high bus fares, it becomes difficult for them to go to Ranchi. In addition to that, they take loans on higher rates from the local moneylenders, the repaying of which becomes difficult for them.



In spite of that, they are happy that the Department of Fisheries has been cooperative to them. The officials of the department regularly visit them and keep them informed about the schemes. One Bhim Nayak of this village is a member of the managing committee of the Fish Farmers Development Agency and attends meetings presided over by the Deputy Commissioner at Ranchi and puts before the officers their grievances.



Bhim Nayak has been the main person who brings the problems of these fishermen to the notice of the authorities. Bhim tries to settle the problems of the villagers at his level only. For the fishermen children he runs a school without any fees.

Bhim Nayak: *I don't receive any type of aid from government or non-government organizations ... I feel it necessary and voluntarily I am spreading it in my community.*



Today Bhim Nayak is an inspiration for the younger people of his village and is working as a link between the fishermen and the government.



The efforts of Bhim Nayak are bringing success. But still, the fishermen feel that there is a lack of the basic infrastructure for their occupation. They have never received any material for aquaculture. About a decade ago, the Department of Fisheries had supplied nets to the fishermen, which have been completely destroyed now. They have also got training long back but today there is no trace of government schemes here. The main tank of this village is being polluted due to lack of maintenance.



In spite of that, the fishermen of Fulwar Toli are quite hopeful. This is the reason that they often sit together and discuss their problems. Their main demands are:

1. The fishermen should be provided with the legal settlement papers of the land on which they are living.
2. The scheduled caste people should also be included in the income-generating schemes.
3. There should be a proper market for selling fish.
4. Soft loans should be provided to them.
5. Insulated boxes and ice should be provided.
6. Fishermen of the “notified area” committee should be included in rural development programs.



However, the fishermen are still hopeful. They need a complete package, and then only real development can be expected in all the households of Fulwar Toli.

2. A Progressive Farmer – A Successful Tribal Village Conducting Aquaculture (Jharkhand)

Principal Investigator

Mr Ashish Kumar, Deputy Director
DOF, Ranchi, Jharkhand

A film documentary of this Case Study is included on the Project CD-ROM. The English version of the documentary's Hindi script appears on the following pages along with still photographs from the film.

Origin

This Case Study from Jharkhand was proposed by Mr Ashish Kumar, Dr K P Singh, Field Specialist Aquaculture, GVT, Ranchi, Jharkhand, William Savage and Graham Haylor.

Duration

The Case Study began in September 2002 following its setting up in August. The fieldwork ran through February 2003, with opportunities to report progress and get feedback on two occasions: the State-level Workshop in October 2002 and the Stakeholders Workshop in January 2003. Final presentation of the Case Study was made at the Policy Review Workshop in Noida, Delhi, in April 2003.

Location

The location was Chhota Changru Village of Silli Block in Ranchi District, where government support has been available.

Key Informants

Key informants included Mr Ras Behari Baraik and fellow fishers of Chhota Changru Village, and the officer of the Fisheries Department.

Method

The Case Study methods were individual interviews and small-group discussions, around issues raised by villagers about how the successful venture has impacted on their livelihoods. As Principal Investigator, Ashish Kumar took charge of organizing and documenting the fieldwork. A professional documentary film-maker from the ETV channel worked with Mr Kumar on the storyboard for the documentary, using information from the interviews, which was drafted by October 2002 and presented at the State-level Workshop for comment and recommendations, supported by photographs. Following the workshop and amendments to the storyboard, the film crew commenced on-location filming and editing to produce a version in time for the January 2003 Stakeholders Workshop. Final editing and production of the film documentary followed.

Content

The focus of the Case Study was to:

Document Ras Behari's success and show how tribal farmers can lift themselves out of poverty through their own efforts
Understand why Ras Behari has been successful

The film documentary highlights his imperative need; his exposure to aquaculture and his education; how he acquired skills, such as the process by which he buys seed – knowing the size of the brooders used, his skill in identifying the species at small size; his acquired skills in husbandry and disease control; and his ongoing and future plans, including his breeding areas.

Also considered was his village's experience of government schemes including:

Mechanism for provision of loans versus use of local moneylenders
Process for supply of material inputs
Mechanism for provision of training (and their views about access to proper training)
Process for communicating (about government schemes and technical extension messages, any systems for feedback, cross-checking and streamlining the system)

Other issues discussed included marketing support and problems in marketing, networking and strategies, and the DOF's and banks' roles in decision-making about harvesting and their impact on market opportunities.

Film Documentary Script



It is said that where there is a will, there is a way, and nothing is impossible if one decides to do it. This is a story of Ras Behari Beraik who is a tribal farmer belonging to Chhota Changru Village of Silli Block of Ranchi District. Once a wanderer, his life has completely changed now and he provides employment for 50-60 families of his village today. He used to walk barefoot to the school, sometimes tying leaves on his feet to protect them from the hot sand. He became unemployed after passing matriculation. Then he joined his father in selling fish seed. His father used to buy fish seed from Purulia and Bankura of West Bengal and used to sell them to farmers of Silli. Somehow the family was sustaining.



Once, Ras Behari himself went to Purulia and Bankura. There he was surprised to see the huge market of fish seed. He enquired from one Mr Shyamal Bose, one of the leading fish seed sellers, whether he could grow fish seed at Silli or not. Shyamal Bose not only told him that it was possible but also taught him some techniques of fish seed production.



Ras Behari got one pond leased in his father's name and started the production of seed in it, and when ready, sold them to the local fish farmers. Ras Behari's efforts were visible. The seed sold by him produced good results in terms of fish production. The number of his customers increased.



Basant Singh Munda, farmer and customer of Ras Behari: *I take seed from Ras Behari-ji of Chhota Changru Village because profit is more and he is from our neighboring village ... so our confidence is more on him ... if the fish don't grow well, he assures to replace them.*

Ras Behari says that the main reason for his success is that he tells the customers what he is giving them.



Ras Behari Beraik: *There is more demand here because we work with enthusiasm, and whatever we say to the customer, we say honestly. We also weigh the seed correctly and if we claim that there is more Catla seed, we also give them more Catla seed. If I don't do this, then the poor farmers will incur loss ... and if it happens ... then I also take the responsibility.*



Most of the seed sellers give Catla fish seed in less number, which is more in demand. Catla grows faster and for breeding also Catla should be more than 3 kg in weight. Most of the seed sellers cheat the farmers, which they come to know later. Ras Behari also takes precaution in buying fish spawn. He enquires about the size of the brooder fish before buying the spawn. He can very well recognize fish spawn. He takes the spawn in a metal bowl and listens, and when sounds like that of a chicken come, he recognizes them as that of Catla.



Ras Behari Beraik: *I take the seed in a bowl and take it near my ear and listen to it carefully and can identify whether Catla spawns are there or not.*

He has good knowledge for the control of fish diseases too. The Department of Fisheries of the government helps him. Lease of ponds, techniques of seed production and feed are provided by the department. Time-to-time training is also imparted to farmers like Ras Behari. He tells that although DOF gives short-term training, if they are sent to institutes in Barrackpore or Bhubaneswar, then they can learn more and earn more from this business.



Ras Behari Beraik: *There is a proposal in the government to send us outside the state ... but so far it has not been done ... recently we had a seminar in Ranchi and another is going to be held in Delhi soon. We will have a meeting in Delhi.*

The DOF is always helping the farmers. This is the reason that the department maintains contact with the farmers. The officials of DOF visit the farmers and inform about seed distribution. Any information is stuck on the notice board of the Block Office. Maintenance of good communication with the department helps the farmers, as Behari tells that due to this there has been transparency in the government schemes. The DOF supplies net, seed and feed from time to time. Ras Behari says that due to departmental supplies the quality of the inputs are maintained and farmers have confidence.



Ras Behari Beraik: *Last year, I got net and two nursery ponds in which I grow fish seed... this scheme is very good ... If I get 10-15 ponds more, it will be very good for me ... These days I hire ponds at far-off places ... then I'll have all the ponds in my village ... and seed production will be easier for me.*

Although there is provision of loans for the farmers, people like Ras Behari hardly get any benefit from it. Banks don't sanction loans in time and there are lots of formalities to be completed.



Ras Behari Beraik: *Loans? ... We don't get loans from banks ... we take from local people at 5% interest rates (monthly) ... Banks ... It's not sure when the bank will open ... When the manager will come ... then they want a guarantor ... and land to be mortgaged ... it's not easy ... to take loans from banks.*



Due to these problems, the seed growers of this area have lots of expectations so that their basic needs can be fulfilled. Following are their main demands:

1. License should be issued for seed or fish transportation so that trucks are not stopped unnecessarily at the police stations.
2. Smaller ponds should be constructed to increase seed production.
3. Ponds should be leased to those already in this business.
4. Ponds should be earmarked for fisheries.
5. Drugs should be developed for transportation of seed to longer distances.
6. Large dams should be constructed.
7. All fish farmers should be enlisted.



DOF also informs the farmers about marketing and taxation, like where to sell fish and seed. On the advice of DOF, Ras Behari purchased a small truck with a loan. He sells 50-60 qtls of seed every year. For providing oxygen, legs are used in the containers.

This business has changed the lifestyle of the villagers. Local fishers take seed from Ras Behari and vend to different villages.



Nabarsi Beraik: *I buy seed from Ras Behari ... no ... no ... complain ... I sell Rohu and Mrigal ... I go to far-off places ... like Bundu ... Sonahatu ... and all the neighboring villages.*

Other villagers also want to join this business. Ras Behari has shown a new path to the villagers.

3. Group-building, Production Success and the Struggle to Prevent Capture of the Resource (Jharkhand)

Principal Investigators

Mr B K Sahay, Field Specialist Social Development; Dr K P Singh, Field Specialist Aquaculture; and Mr S N Pandeya, (former) Field Specialist Monitoring and Evaluation; all with GVT East, Ranchi, Jharkhand

A PowerPoint presentation of this Case Study is included on the Project CD-ROM. The Case Study text appears on the following pages. This is a combined version of a report on the Case Study village first written in April 1997 – when Jharkhand was part of Bihar – and information gathered through follow-up fieldwork for the purposes of the Project.

Origin

This Case Study from Jharkhand was proposed by Dr K P Singh, Mr B K Sahay, Mr S N Pandeya, William Savage and Graham Haylor.

Duration

The Case Study began in September 2002 following its setting up in August. The fieldwork ran through February 2003, with opportunities to report progress and get feedback on two occasions: the State-level Workshop in October 2002 and the Stakeholders Workshop in January 2003. Final presentation of the Case Study was made at the Policy Review Workshop in Noida, Delhi, in April 2003.

Location

The location was Amber Toli Village, Nehalu Cluster, Ranchi District.

Key Informants

Key informants included GVT Self-Help Group (SHG) members belonging to the Young Generation Group, comprising all 36 households of Amber Toli, and Jankars.

Method

The Case Study methods were individual interviews and small-group discussions, around the group's experiences of service provision by the NGO GVT, and a review of group records. GVT Community Organizers know individuals and groups in the clusters of villages that have received support for many years. Mr Pandeya was formerly the Community Organizer for Amber Toli.

Content

The Case Study focused on:

People's experiences of group building and operation

Experiences of the initial technical success of aquaculture operations undertaken,
and

The subsequent history of the group and their experience of maintaining control
of a valuable resource against more powerful stakeholder interests.

Getting Started

KRIBP-E activities on cleaning of pond, removing weeds and use of lime were started by Ms M J Tete in 1996. The community perennial pond (*Maria bundh*) of 1.96 acres was owned by villagers and used by all the people for bathing, cleaning animals and irrigation. Before 1996, there was no culture fisheries.

In 1996, the Young Generation Group (Self-Help Group) of Amber Toli, with members from all 36 households, started aquaculture activity. The whole village organized a meeting and decided to go for the aquaculture program. The group received training from KRIBP-E, and in June they stocked the pond with seed from SRI³ (10,000 fingerlings of 30 mm).

The villagers developed a schedule, what they needed from the project, what could be provided and who would do it. The group also decided the roles and responsibilities of group members for feeding, watching and other management practices. Villagers provided manure by basket, about 60-70 kg of dry cow dung per week. From the project came lime, rice bran and KMNO₄ precautionary treatment. Fingerlings were added to the hapa, treated and released.

Results

In 1996, there was no proper outlet facility and the group could not get a good yield. They harvested in March and got Rs 6,000 for 1-2 kg of fish. They had no big net and were not trained. They brought a net from another village, rented at Rs 200.

In 1997, the community continued the activity and also added 2 kg of fingerlings purchased from the Bharno local market. Harvesting of fish that year was comparatively better and they sold fish worth Rs 9,000; some of the older fish now were 3-3.5 kg. This time a net was borrowed from Birsa Agricultural University. They tried to check the outgoing fishes by making bamboo net. But due to heavy rain they could not succeed and so, like in 1996, they lost many fish.

They then decided that unless and until there could be a proper outlet, they could not succeed, so they raised a proposal for that. In 1998, with the help of the GVT project, an outlet was constructed with an investment of Rs 60,000. The community members also provided labor at a 50% charge of the labor rate. The 1999 harvest had not happened yet but a test harvest revealed large fish. They harvest rainy season fishes with a mosquito net; fish are 4-5 cm.

By this time, the community and Jankars received a good number of training inputs from the project and their skills developed considerably. Group savings were about Rs 17,000 (12,000 in the bank at 12% annual interest; 6,000 in credit and savings at 5% per month). The lending rate in the village was 10% per month.

Marketing

If they harvested 30-40 kg, they sold among the group and to outside persons. When they harvest in March, a big crowd gathers. First they sell to the group at Rs 30, then to neighbors at Rs 40, and only then to outsiders, but there is never any left.

3 Society for Rural Industrialization

Conflict – Encroachment by an Individual and Community Struggle

When the outlet construction was in progress in 1998, a person of the same village – who lives at Ranchi and is employed in the survey office – represented to the GVT Bihar State Coordinator (SC), that this pond belonged to him, and was his personal property, so please stop the work. But by that time the construction of the outlet was 80% finished. The claimant was requested by project personnel to settle it with the community amicably. Meanwhile, the claim paper presented by him was forwarded to the Circle Office (CO) Bero for verification about the ownership of the land, requesting the officer to give feedback to KRIBP-E.



Pond with conflict – whose ownership?

The claim was found to be not genuine as there was no record in the revenue register for that land. Also revenue had not been paid to the office, which is required and supposed to be one of the major papers relating to the ownership of the land. The claimant returned to the office with two other persons to discuss the matter with the Bihar SC and Nehalu Community Organizer. They agreed that there was no objection to constructing the outlet for the benefit of the community, so construction was completed.

The DDC Ranchi visited the pond in February 1998 to see the aquaculture activities of the group, and sanctioned a hatchery construction project of Rs 600,000, with the first installment of Rs 100,000 received in October or November. They visited the site to plan and demarcate the hatchery.

Seeing the success of the pond and government assistance, again the claimant complained, so KRIBP-E requested the Circular Officer to make ownership clear, and papers were sent to LRDC⁴ Ranchi. The claimant also tried to harvest the fish by hiring some “musclemen”, but the villages united and prevented him from harvesting. He also lodged an FIR⁵ in the name of some group members and filed a court case for the ownership of the pond.

In 1970, there was a mass transfer of government land to the people – “distribution of Pata” – without following proper procedures. The claimant’s paper (from 1977) was 27 years old and there was no record with the LRDC. The paper showed that the plot 2098 was fallow land while the Circular Office record stated that this plot has a *bundh* – a big earthen bund – which cannot be personal property. The earthen bund on the plot had been paid for by the Block Office, i.e., constructed by the government, in 1970. Therefore this must be government land.

4 Land Reform Deputy Collector, government official looking at land-related issues at district level

5 First Investigation Report (a case has to be filed with the police after any incident)

The villagers held a meeting and collected the relevant papers related to the ownership of the pond. The case was transferred to the court of LRDC with a recommendation from the Circle Officer in favor of the community. The group members also jointly represented the issues to the local MLA⁶, who also recommended to the LRDC in favor of the villagers – that this was a common village pond and did not belong to an individual. The case is still in LRDC court. The pond is presently under the complete ownership of the community and in 2002, 6 kg of fingerlings had been stocked by the community.

This is a civil case to be judged by the LRDC. The LRDC has recently been transferred; the DDC has been transferred and the CO⁷ has also been transferred. The Community Organizer from GVT moved to the position of Field Specialist Monitoring and Evaluation. The claimant is employed in the survey office from which his paper derived. He had never made any claim to the land before the community fish harvest was demonstrated to be so valuable.

Findings

The group is very cohesive and has good understandings of their rights. They have strategic planning to fight with probable emerging situations. In the worst situation, they are planning for the development of some other ponds to continue this activity but will not allow their skills in aquaculture activities to dissipate.



Group harvesting the success

⁶ Local elected representative at the state legislature

⁷ Circle Officer, block-level official looking at land-related issues

4. Contrasting Case Studies of Service Provision and Participation (Orissa)

Principal Investigators

Mr B K Sahay, Field Specialist Social Development; Dr K P Singh, Field Specialist Aquaculture; and Mr S N Pandeya, (former) Field Specialist Monitoring and Evaluation; all with GVT East, Ranchi, Jharkhand

A PowerPoint presentation of this Case Study is included on the Project CD-ROM. The Case Study text appears on the following pages.

Origin

This Case Study from Orissa was proposed by Dr K P Singh, Mr P K Mishra, GVT State Coordinator for Orissa, William Savage and Graham Haylor.

Duration

The Case Study began in September 2002 following its setting up in August. The fieldwork ran through February 2003, with opportunities to report progress and get feedback on two occasions: the State-level Workshop in October 2002 and the Stakeholders Workshop in January 2003. Final presentation of the Case Study was made at the Policy Review Workshop in Noida, Delhi, in April 2003.

Location

The Case Study locations were Khajuria and Haldikundi Villages in Dhenkanal District, where government and GVT support has been available, and Batagaon Village where government support has been available.

Key Informants

Key informants included Damodar Sahoo and Ashok Kumar Sahoo from Khajuria and Haldikundi Villages, and Pabita Mohan Baral, Pradhan from Batagaon Village.

Method

The Case Study methods were individual interviews and small-group discussions, around issues raised by villagers about how their successful venture has impacted on their livelihoods. Mr Pandeya and Mr Sahay conducted the interviews and discussions in September 2002. These were completed by October and presented at the State-level Workshop in October for comment and recommendations, supported by photographs.

Content

The focuses of the Case Study were to:

Document Khajuria and Haldikundi village success and show how tribal farmers have a strong community ethic, the capacity for collaboration and the vision and practical commitment to address their development needs

Understand why Damodar Sahoo and Ashok Kumar Sahoo have been successful

Highlight the objective of and imperative need for the undertaking

Understand key informants' experiences of GVT services and government schemes including:

- Mechanism for provision of loans versus use of local moneylenders
- Process for supply of material inputs
- Mechanism for provision of training
- Process for communicating (about government schemes and technical extension messages, any systems for feedback, cross-checking and streamlining the system)

This Case Study from Orissa also highlights the contrast of neighboring Batagaon Village and their experience of government service provision (where a tank was constructed on land that does not hold water, costing Rs 100,000), highlighting the reasons for this outcome.

In addition, the Case Study considered marketing support and problems in marketing, networking and strategies, and the DOF's and banks' roles in decision-making about harvesting and its impact on market opportunities.

Community-managed Pond of Khajuria and Haldikundi

Pond History

This is a perennial pond of approximately 4.5 acres, with 60% and 40% of the pond area falling under the villages of Khajuria and Haldikundi respectively. The pond was first excavated in 1952 through the scheme of food for work. Until 1979, weed fish and catfish were being grown and distributed among people in both villages.



Group managed pond in project village

In 1980, Khajuria and Haldikundi villagers started aquaculture jointly. The cost of doing aquaculture and profit were distributed in the ratio of 60:40 by the two villages respectively. In 1989, the profit from the pond was donated for starting the school in Khajuria Village. In 2000, 18 members were selected from Khajuria and Haldikundi and a fish development committee was established by the facilitation of GVT. In this year, aquaculture was started by that committee. In 2000, GVT organized a training program for members of the fish development committee. In 2001, fry were stocked but the bund was broken due to flooding. With the help of the Panchayat, the villagers got Rs 70,000 for repairing the pond. In 2002, the aquaculture program was continuing by the village committee of both villages.

Community Realization of Success

Conducting the aquaculture program in a joint manner has led to better understanding, planning and implementation. The profit generated through the activities has increased the group fund and access of the community to credit. Through the joint efforts of both villages, a high school was started in 1989. Rs 5,000-6,000 per year is donated towards school development through the aquaculture program. Villagers from Batagaon and Koi Villages have learned from this village and started a school. A *kaju* (cashew nut) plantation of ten acres commonly belongs to Khajuria and Haldikundi and has been denoted for meeting the financial requirements of the school. Influencing the Panchayat has resulted in a sanction of Rs 70,000 for pond repair.

Loan Mechanism

The community prefers to take loans from private moneylenders because the process is easy with timely loan availability, but not from the government due to procedural delay.

Marketing

Marketing of fish is not a problem for the community. They sell the fish in Kamkhya Nager, Bhuwan, at Rs 40/kg for big fish and Rs 20-25/kg for small fish.



Group members presenting their success during a visit

Constraints on Aquaculture

Fry and fingerlings from government agencies are not available in the local area. The quality of seed is not assured (a private seed supplier gives 50% of the money back if seed is not of good quality). Seed provided by the fisheries department has the complaint of “long head and small body”. There is no village-based practical training program and a lack of low-cost technology.

Community Feeling

There should be a fry selling center and a government fry production center at the Panchayat level. High quality seed should also be ensured. Field-based training programs with economic inputs should be introduced. Site selection for pond excavation should be done with its technical feasibility.

Government-supported Pond of Batagaon

The community pond of 5.6 acres was dug in 1962 with an investment of about Rs 2,000. In 1989, redigging was done under the watershed development program at a cost of about Rs 20,000. In 1992, Rs 15,000 was invested for digging under the JRY⁸ scheme. The pond was given to an individual by the government on a three-year lease. The payment for the lease varies from Rs 2,500-3,000/year. The pond is constructed on hard soil and water stagnation is only for 4-5 months.



Community pond at Batagaon

⁸ Jowahar Rojgar Yojna, an Indian Government scheme for providing employment through asset creation

Community Realization

Leases to individuals reduce common access to the pond, and short-term leases lead to poor pond management. Stocking and harvesting are only done by the lease-taker; no input is given in the pond. There is no provision of any technical input by the government, nor provision of group-based aquaculture programs in government ponds.



Discussion with community at Batagaon



Community pond at Batagaon

5. Recipients' Experiences of Services Provided by NGOs in Support of Aquaculture for Poor and Tribal Groups (West Bengal)

Principal Investigators

Dr S D Tripathi, Consultant, Mumbai (Principal Investigator); Mr Gautam Dutta, Field Specialist Aquaculture, GVT West Bengal, and Ms Jhinuk Ray, Community Organizer, GVT Jhargram (Co-Principal Investigators)

A PowerPoint presentation of this Case Study, and a film documentary of this and the next Case Study, are included on the Project CD-ROM. The Case Study text appears on the following pages.

Origin

This Case Study from West Bengal was proposed by:

Gautam Dutta, Field Specialist Aquaculture GVT West Bengal
 Jhinuk Ray, Community Organizer, GVT Jhargram
 Purnachand Soren, Jankar, Nalbon Village, Midnapore
 Dhiren Singh, Jankar, Banstola Village, Midnapore
 M Rahman, Community Organizer, GVT West Bengal
 Sakya Singha Mahato, Jankar, Jabarrah Cluster
 Laxmi Manjhi, Jankar, Banstola Village, Midnapore

Planning discussions with Dr Tripathi during the State-level Workshop included all the above persons.

Duration

Originally proposed to commence in July 2002, the Case Study was to begin in September following its setting up in August. However, it was further delayed and could begin only in late October as decided in the State-level Workshop. The fieldwork ran through October and November 2002, with an opportunity to report progress and get feedback during the Stakeholders Workshop in January 2003. Final presentation of the Case Study was made at the Policy Review Workshop in Noida, Delhi, in April 2003.

Location

The Case Study was conducted in four villages in West Bengal: Kaipara (Bara Bazar Block) and Jabarrah (Hura Block) of Purulia District, and Nardha and Banstola (Jhargram Block) of Midnapore District.

Key Informants

Key informants were GVT Self-Help Group (SHG) members of Mahato Group Kaipara and Jubojagruti SHG:

Nabo Jubo Sangha, Nabo Tarun Sangha and Mohila Samiti of Kaipara
 Padmalochan, Nabodaya, Mahamaya and Shilawati of Jabarrah

Nardha Adivasi
 Gramin Unnayan
 Samiti and Nardha
 Adivasi Jiyer Jharna
 Mohila Samiti of
 Nardha
 Banstola Krishi Pragati
 SHG and Banstola
 Nari Jagorani SHG



Purulia and Midnapore Districts

Method

The GVT Community Organizers know well the individuals and groups in the clusters of villages that have received their support for many years. Instead of their usual work of awareness-raising and building self-reliance to utilize local resources better, this time they “swapped” clusters to document SHGs’ experiences of service provision by GVT. In the State-level Workshop, it was decided that a group of three persons from the two clusters (Kaipara and Jabarrah of Purulia District) would make cross-visits along with the Principal and Co-Principal Investigators. The study team comprised a Jankar, and a representative each of the Gram Panchayat and SHGs. Similarly, cross-visits were organized to Lalbona and Nardha Clusters of Jhargram Block to document their experiences.

Contents

The sections of the Case Study on the following pages include:

1. Introduction
2. Group-building and Operation
3. Initial Size of Aquaculture Operations
4. Risk and Risk-taking
5. Extension Processes (Training, Materials and Other Media)
6. Marketing Processes
7. Timeliness of the Provision of Inputs and Services
8. Accountability of Group Members
9. Recommendations for Change

1. Introduction

Kaipara Village, Kaipara Cluster, Bara Bazar Block, Purulia District

The cluster comprises five core villages (Kaipara, Brojarajpur, Khawasdih, Bamu and Khamar Tanr) of which Kaipara is located 34 km south of Purulia and has poor infrastructure in terms of, for example, electricity, telephone and secondary school. Dominated by Other Backward Communities (OBCs) – *Mahatos* – followed by Scheduled Tribes (ST) – Oraons – it has a poor literacy rate. There is no landless household in the village, each one having at least a house if not cultivable land, but 75% of the households are daily wage laborers and many migrate in search of jobs. There is no forest and soil erosion is a major problem.

Kaipara is rich in aquatic resources with a total of 37 ponds, of which nine are large and perennial, excluding a check dam that is leased to a farmer and used for fish culture by farmers' groups, while others are seasonal in nature and not utilized properly.

Jabarrah Village, Jabarrah Cluster, Hura Block, Purulia District

Jabarrah Cluster has seven villages (Jabarrah, Nutandih, Mudidih, Dumurdih, Chitra, Gundlubari and Dumdumi) of which Jabarrah is situated 20 km east of Purulia, about 3 km off the metalled road. About half the land is upland (48%), followed by lowland (31%) and medium land (21%). Though the average rainfall is 1,200 mm, it is unpredictable and drought and floods are of common occurrence. The village is electrified and has a post office too but is unapproachable during the monsoons.

The village is dominated by OBCs followed by SCs, with a higher literacy rate among men (68%) than women (30%). About 62% of the population are poor; of that about 23% are engaged in wage labor. Agriculture is the main occupation. Cattle and poultry are kept by 52% of the households. There is no pasture and no veterinary doctor in the area. No natural forests exist but since 1991 social forestry has been playing a great role.

Jabarrah is rich in aquatic resources with 16 small, seasonal ponds called *hapas* (average area of 0.06 ha) and 16 large, seasonal ponds (average area of 0.5 ha) that are all privately owned. Of the seven large, perennial ponds (0.6 to 4.0 ha), four covering a total water spread area of about 7 ha were owned by a landlord until 1996, whence these were purchased by the villagers for systematic aquaculture at a cost of Rs 90,000. In addition, the village has three Panchayat (government) ponds, located about 1.5 km from the village, that dry up by December-January. Being away and owned by the Panchayat with no initiative to use them, the villagers have only been fishing there to get some wild fish for domestic consumption.

Nardha Village, Nardha Cluster, Jhargram Block, Midnapore District

Located south of Jhargram and connected by an 8-km *morum* road with National Highway 41, Nardha is a 100% tribal village with 56 households of *Santhals* and *Mundas* with little education, meager resources and poor but hardy people. The land is upland (60-70%) and the rainfall low (1,100 mm). The people mostly migrate out in search of jobs. About 15% of households had taken loans for various purposes from banks and other agencies, of whom more than 60% are defaulters. Natural forest covers about 33 ha where a depression exists that impounds rainwater in the monsoons, but there being no proper dyke, it drains out and dries up.

Banstola Village, Lalbona Cluster, Jhargram Block, Midnapore District

Located 15 km away from Jhargram, Banstola has an area of 178 ha with an undulating topography. The rainfall ranges from 1,200-1,400 mm. About 94 ha of land belongs to the Forest Department. Some of the villagers are involved in the Forest Protection Committee and have played a useful role in checking deforestation. The village has 51 households and except for five Scheduled Caste households, the rest are all tribal people.

2. Group-building and Operation

Kaipara

Naba Juba Sangha

The villagers were neither united nor had made any efforts to come together to take advantage of the available facilities about which they had little knowledge. Following tremendous persuasion by KRIBHCO officers in 1995, a big change was brought about, in that 37 farmers came together and formed a group called *Kaipara Naba Juba Sangha*. The farmers collected admission fees and a monthly subscription that was deposited in the bank and an account opened. Mr Nidhi Ram Mahato was elected secretary and assigned the responsibility to look after all activities. Weekly meetings were held and planning for development undertaken. Initially, the group was involved in forestation to prevent soil erosion but later took to aquaculture as well. The group was reorganized in 2000 to avail of the facilities provided to Self-Help Groups (SHG) with 20 members in *Naba Juba Sangha* headed by Nidhi Ram Mahato and 17 in *Kaipara Juba Sangha* with Sasadhar Mahato as the leader (Jankar).

Kaipara Mahila Samiti

In December 1995, 25 women also formed a small group called *Kaipara Mahila Samiti* and opened a bank account. In March 1996, KRIBHCO provided two goats to each member on the condition that she would return the first-born goats to KRIBHCO. The group was also asked to deposit Rs 100 per member in their account. This not only helped increase the fund but also served as a sort of deposit against defaulters who would fail to return the new-born goats to KRIBHCO to enable further distribution in the village.

In 2000, the group was divided into two groups: one comprising 15 members “above the poverty line” (APL) and called *Kaipara Mahila Samiti* with Sheila Mahato as the group leader, and the other with ten members “below the poverty line” (BPL) and headed by Vandana Mahato. The latter was given a new name and called *Jagarani Mahila Samiti*.

Naba Tarun Sangha

A third group was formed in 1996 in the Khamar Tanr Tola of Kaipara with 25 members that started with aquaculture, goatery, forestry and agro-forestry. The group earned about Rs 11,000 from tomato plantation in 1998 and planted 12 ha of wasteland with tree saplings that now stands with about 40,000 trees valued at Rs 10 lakhs. The group was involved in research on fish breeding, seed production and introduction of exotic species.

Jabarrah

Until 1994, the villagers were neither organized nor knew anything about scientific aquaculture practices. Only 2-3 farmers practiced low-grade traditional fish culture when Hindustan Fertiliser Corporation (HFC) organized a demonstration in the 4-ha *Sayer bundh* employing the three exotic species of carps – silver, grass and common – and showed a high production potential that greatly impressed the villagers. In 1995, KRIBHCO entered into a two-year contract with the landlord, Mr Bijon Babu, but owing to mass poaching of fish, the landlord sold the ponds to the villagers, concluding the contract after one year. KRIBHCO organized training programs in fish culture for a few selected farmers at Purulia and community training in the village itself.

The farmers now decided to form groups. Initially, four groups were formed: *Padma Lochan* (nine members) and *Nabodaya* (10 members) comprising men members, and *Mahamaya* and *Shilawati*, each with ten women members. Later, one more women's group with ten members, *Maa Santoshi*, was formed in 1997. An account was opened in the post office, members were assigned positions in the groups, and rules and regulations framed. Planning meetings were held every week. A central committee – *Jote Solah Anna* (signifying 100% ownership of ponds) – was also formed that overviewed the four groups jointly involved in aquaculture.

Nardha

Earlier attempts by some village leaders at group formation had failed but repeated visits by the GVT team in 1998 persuaded the villagers to form groups when they were convinced that they could develop their own resources by availing of GVT assistance. Facing all the odds that came their way, the villagers did finally come together and the group, *Nardha Adivasi Gramin Unnayan Samiti*, formed in January 1999 with 47 men.

The villagers were now close-knit and ready to help each other. It was evident when one of the “very poor” elderly men suddenly fell ill. Not only was his treatment paid for but he was also shifted to the hospital. When he died, the group helped a widow – who had two children and no means of living – by providing three pigs that proved an asset. She is now making her livelihood through the sale of piglets. GVT was also approached to provide her a house and she was given BLAD (“between life and death”) support.

After six months of formation of the men's group, 43 women formed a group called *Nardha Adivasi Jiyer Jharna Mohila Samiti*. Jankars of both groups are playing an effective role as group leaders, conducting regular meetings every month, looking after different activities, and maintaining registers for proper records and documents.

Both the men's and women's groups are involved in several activities. Besides seed multiplication of *kharif* and *rabi* crops, other activities include forestry, agro-forestry, orchard, vegetable cultivation, aquaculture and other income-generating activities such as piggery, goatery, poultry and duckery.

One of the group members, Mr Rabindra Nath Singh, donated his land that was a 11-m² pond to the *Nardha Adivasi Gramin Unnayan Samiti* for construction of a community hall. The group filled the site where now stands an impressive community hall that shows the collective will and determination of the members who contributed labor at half rates (Rs 15

per day). The community was constructed at a cost of Rs 70,000 for which GVT contributed Rs 20,000, while the groups' contribution was Rs 35,000.

Banstola

The story of Banstola is no different from Nardha where too the villagers came together to form a group in January-February 2000 only when the GVT officers visited them and indicated the advantages of group formation. The first group comprising 16 men members, *Banstola Krishi Pragati SHG*, was formed in July 2000. The project approaches had gradually created an awakening among the women too, who grouped to form *Banstola Nari Jagoroni SHG* with 33 members in July 2000.

The two groups are jointly involved in several activities such as agriculture, horticulture, agro-forestry, soil-water conservation, pond excavation and aquaculture with GVT's assistance. The groups also decided to have a big *kaju bagan* (cashew plantation) and planted 15 ha of wasteland with cashew and other crops. These plants have grown exceedingly well and a net annual income of Rs 100,000 is expected after three years.

Both groups now have more than Rs 20,000 in their accounts and are recycling the money by providing loans to outsiders or group members with interest. Optimism and sincere efforts for a bright future are a hallmark of these groups.

3. Initial Size of Aquaculture Operations

Kaipara

Naba Juba Sangha

Traditional fish culture was practiced in two ponds before the introduction of scientific techniques by the KRIBHCO project in 1996. Presently, fish culture is done in a 1.6-ha pond, shared by the two groups, in alternate years. The seed and other inputs are purchased from the group funds and the activity is sustained.

Kaipara Mahila Samiti

Aquaculture was initiated in 1997 before the *Samiti* was divided into two. Later, *Jagarani Mahila Samiti*, represented by Ms Vandana Mahato, that owned two ponds (0.4 ha and 0.3 ha) alone, continued the activity. Ms Vandana and Purnima were trained in fish culture by GVT and despite being novices in the field, the group earned a net income of Rs 10,000 last year against an expenditure of Rs 3,000. They are aware that the government has certain provisions for aquaculture, especially for Scheduled Caste and Scheduled Tribes, but have not availed of such facilities nor have they approached the banks. However, the bank manager is providing them a grant of Rs 10,000 under the *Swarna Jayanti Sahrojgar Yojana* (SJSY) scheme.

Naba Tarun Sangha

From traditional aquaculture that was practiced prior to 1996 in Khamar Tanr, the *Naba Tarun Sangha* also got involved in scientific aquaculture in two ponds (0.4 ha and 1.0 ha)

after receiving training under the KRIBHCO project. The group also undertook controlled breeding of common carp and Indian major carps through hormone administration but could not continue owing to environmental problems.

Jabarrah

To begin with, the villagers collected Rs 300 per family from the 255 families in Jabarrah for purchasing ponds from the landlord, Mr Bijon Babu. In addition, they also had money received from the sale of fish left in the pond where the Hindustan Fertiliser Corporation (HFC) had undertaken the demonstration, as well as from other ponds. They were now in possession of a large property with a lot of fish in the pond and keen on practicing aquaculture in all available ponds, with their morale boosted by possession of technical knowledge. From a small beginning, the group embarked on a massive aquaculture program within a short period of two years with the finance available at hand.

Nardha

Way back in 1994, the Fisheries Department had supported the excavation of small *dobas* for prawn culture and three such *dobas* were done. Prawn seed was supplied but no training was organized nor were any instructions issued as to the rearing methods. As a result, there was no survival and nothing was harvested.

Based on its interest in aquaculture, the *Nardha Adivasi Gramin Unnayan Samiti* organized the lease of the 0.2-ha Panchayat pond for Rs 500 in 1999-2000 and got a man trained in aquaculture techniques at GVT Purulia. GVT supported the venture and provided 7 kg of fish seed besides other operational inputs and a pH meter. Heavy rains damaged the dyke and fish were lost, but the members, ignorant of what had happened, continued to fertilize the pond and feed the fish as some fish were always seen moving around in the pond. When the pond was harvested in December, only 72 kg of wild fish were caught which sold for Rs 2,500. This failure had been a big setback for the group who did not have enough money for operations during 2001-02.

Mr Durga Soren, a blind man identified as a BLAD member, had stocked 1 kg of seed comprising 500 g of silver carp and 500 g of Rohu and Mrigal. No feed or fertilizer was provided except that the pond received kitchen refuse and was used for bathing and washing. He harvested about 25 kg of fish and used it for domestic consumption besides selling a part for Rs 500.

Mr Narendra Singh, who was trained, had his *chingri doba* further excavated to utilize the earth for building a house that increased its size to about 0.04 ha. He stocked about 3 kg of seed and harvested 60 kg of fish. Of that, 30 kg was sold for Rs 1,200 while another 30 kg were used for domestic consumption.

By January 2002, the group extended its activities by excavating a 0.3-ha pond with the help of GVT for Rs 17,000. The group provided labor at half rates in which both men and women members participated. Being a new pond, it is expected to have low productivity and has therefore been stocked only with 500 advanced fry (2 kg).

Banstola

A 0.4-ha pond belonging to a *zamindar* was forcibly taken over by the two groups for village development and excavated thrice using Panchayat funds and is now perennial in nature. Fish culture was started in this pond in 2000-01 with GVT assistance in terms of seed and all operational inputs and guidance. Besides community training, two Jankars were also trained before the initiation of the program. The production was satisfactory and the group had a good harvest that was sold for Rs 8,500, besides an equal amount for fish that was used for consumption by all members. This year (2001-02), the men's group purchased seed and all inputs from its own funds and also a net for Rs 5,000 for fishing in the pond. The group members are engaged to net the pond and paid wages at Rs 25 per day. The groups are expecting an income of Rs 40,000 from this year's sale.

GVT also provided funds for digging a pond (*Maa dighi*) that was done by both groups on a share basis but could not be completed as hard *murram* appeared at the bottom and the work for wages earned was becoming expensive. The group approached the Panchayat to provide some assistance that has been promised and the work will be completed in 2002-03.

A 0.2-ha pond called *Kajal dighi* has been dug by the Forest Department as part of the services rendered by the village for forest conservation and the women's group is operating it exclusively.

4. Risk and Risk-taking

Kaipara

No risks were involved initially for *Naba Juba Sangha* as GVT supported the entire activity. The group is now aware of the techniques and is managing it properly. However, *Jagarani Mahila Samiti* did have some risk, as based on training alone and with no previous experience, they invested Rs 3,000 in aquaculture that helped earn a net profit of Rs 7,000. *Naba Tarun Sangha* also took some risk and indulged in fish breeding and seed production but faced certain problems for want of proper training and background information about climatic conditions.

Jabarrah

The villagers took considerable risk in allowing angling in the ponds but finally found it to be quite remunerative, not only in terms of increasing funds but also productivity indirectly through feed material used by anglers. The group took a risk of introducing an exotic fish, *Barbodes javanicus*, that did not find favor with the consumers and its culture was finally given up.

Nardha

The loss of fish from the Panchayat pond – developed with GVT support – due to flooding was a big setback for the group who could not approach GVT for similar support the second time. However, after the men's group repaired the damage done to the dykes, the group decided to lease the pond once again and stocked it with 2 kg of seed purchased at Rs 100/kg.

Unfortunately, the dyke was washed this year too and wild fish will once again constitute the catch in the coming months.

Banstola

There has been no risk so far. The plantations have come up well and so has the aquaculture program that would get a further boost with the two ponds dug recently.

5. Extension Processes (Training, Materials and Other Media)

The GVT pattern of organizing the training, in general, has been:

Community training in the village itself, three or four times in a year
Training of selected members called Jankars at headquarters at Purulia

Advanced training for Jankars at aquaculture institutions such as the Central Institute of Freshwater Aquaculture (CIFA), Bhubaneswar, and the State Training Centre of SRI (Society for Rural Industrialisation) in Ranchi.

Further, the GVT also supplied equipment (e.g., balances, pH meters), nets, *hundis* and also feed, fertilizers and seed to all the groups in the first year.

6. Marketing Processes

Kaipara

The quantity fished out being small, marketing has been no problem as it is generally sold locally or taken to Purulia on *hat* (weekly market) days by *Naba Juba Sangha*. Mr Bharat Mahato controls fishing and excess fish is not taken out. For *Jagarani Mahila Samiti*, Vandana's husband takes the surplus outside the village. *Naba Tarun Sangha* takes out 20 kg on *hat* days.

Jabarrah

The merchants or their agents come from Asansol, Adra and other centers and fix the rate and quantity to be purchased in advance. The fishing parties then arrive just 2-3 days before *Saraswati Puja*, normally in February, and fish continuously to collect the required quantity that is kept alive in nets to be taken on the auspicious day when prices rule high and demand is great. It being a special day when fish must be eaten, 1 kg of fish is also given to each of the 255 families in the village who are joint owners of the ponds. Since the villagers are not involved in fishing, a considerable part of the income goes away as netting charges that amount to 30-40% of the catch.

A fisherwomen of the village, Ms Thanda Mahato, purchases fish from ponds where fishing is conducted, besides the fish caught by her husband from different ponds, and sells it at a premium of Rs 10-15/kg and earns Rs 100-150 a day, 3-4 days a week. She deposits this money in the post office and uses it for running the expenses of the family.

Nardha

The quantity being small, there is no problem and it is sold like hot cakes in the village itself at a sufficiently low price of Rs 30/kg. Most farmers collect fish from one or the other source almost every day for their domestic consumption. The demand thus exists for any future supply.

Banstola

The fish is sold locally in the village itself at a sufficiently high price of Rs 50-55/kg and has a ready market, the demand being higher than supply.

7. Timeliness of the Provision of Inputs and Services

Training was always organized first before the fish culture program was started. Besides community training that was given repeatedly on each aspect in advance, specialized training was organized at research and development institutions. Further, training was not confined to aquaculture alone but included all aspects for integrated village development.

The inputs and services were always organized in time. All the inputs were supplied through the community center while the seed was made available at the pond site well in advance. As the nor'westers fill the shallow ponds in May itself, a fast growing period is available both for the seed as well as for the fingerlings in the stocking ponds.

8. Accountability of Group Members

Kaipara

Bharat and Nidhi Mahato have been sharing the main responsibility in *Naba Juba Sangha*. Discussions are held in weekly meetings and responsibility for whatever work is required to be done is given to the person who can discharge it most efficiently. Each one is accountable for the duties assigned to him. *Jagarani Mahila Samiti* has a number of Jankars, at least one for each activity such as aquaculture, forestry, poultry, crops and soil-water conservation. They have their own associates with whom they share responsibility for the entire activity and are thus accountable for their area of work. The members of *Naba Tarun Sangha* are active, cooperative and accountable to the Jankars.

Jabarrah

The kind of sincerity and seriousness with regard to work, a rare combination to be found even in "educated" classes, is to be experienced in this village. Each group member feels that he is accountable to himself and to the group as well. There is a considerable "fellow feeling" among the group members. Jankars decide responsibilities to be assigned for the different activities. One person each has been given the charge of feeding the fish, monitoring the water quality and marketing, while two persons look after the watch and ward, and monitor the health and growth of fish, the accounts being the responsibility of the entire committee.

Recently, CIFA and GVT have signed a Memorandum of Understanding for research on the productivity of fish ponds in laterite soils. While CIFA will provide inputs and seed, farmers whose ponds are covered under the program will provide cow dung and rice bran. This is likely to provide a new and specific package to farmers.

Nardha

There are regular weekly meetings on Mondays and the program decides who would do what. Mr Singrai Hazda, who has studied up to class VI and is the only person who can read and write, maintains all accounts of the group's activities efficiently. Others are assigned roles of feeding, netting and watch and ward.

Banstola

The group shares responsibilities and each one is accountable. If anybody's cow is ever found in the plantation or cultivated fields, a severe fine of Rs 95 is imposed immediately. There is no poaching either of fish or any other product. The honesty and sincerity of the group members needs a special mention. There has been no government help for aquaculture. As the nearby village was not only provided nets, but also got a road constructed, the Banstola group also contacted the Panchayat but it was clarified that such groups alone are helped by the government that depend exclusively on fish.

9. Recommendations for Change

Kaipara

Naba Juba Sangha

Expansion of its aquaculture activity and lease of the two Panchayat ponds
Build up further assets through government assistance and training

Jagorani Mahila Samiti

Training in fish culture and government assistance for scaling up

Naba Tarun Sangha

Training for each individual so that each one is aware of what is to be done and when
Availability of the Fisheries Extension Officer (FEO) at his headquarters at least twice a week

Jabarrah

Information regarding the services provided by the Fisheries Department

Posting of a Matsya Sahayak (MS) in each Panchayat on the lines of agriculture that has a Krishi Prajukti Sahayak (KPS) to fill the gap owing to vacant FEO positions

Discussion on aquaculture rarely held at the meetings of the Gram Sansad and the Panchayat Samiti. All planning for the village to be initiated at the Gram

Sansad and then taken up at various levels through Panchayat, Block and Zila Parishad

While ponds are excavated under various schemes, no provision exists for their use for aquaculture. This needs to be rectified.

The government should provide relief to fish farmers too, as is the case of other farmers, in the event of natural disasters such as floods, drought and disease, and make a provision for insurance.

The activities of the government should be publicized through posters, leaflets, brochures and films so that special provisions made for Scheduled Castes, Scheduled Tribes and OBCs are availed of by the respective communities to improve their lot and economic condition.

There are no other NGOs in the village except GVT. During training organized by GVT, farmers had learnt from fisheries officers who were invited as guest speakers, of the facilities provided by the state Department of Fisheries. Based on the directions, an application was given in September last year by each of the 14 groups now existing (the four groups formed initially have been reorganized now into 14 SHGs with 10-20 members in each) to the Panchayat Samiti and forwarded to the Block Officer through the FEO. Verification of their ponds was done and the groups informed by the Sabhapati that an amount of Rs 11,000 was approved for the renovation of the ponds. He also added that later, seed, nets and other materials would also be provided, but to their utter surprise they were told after repeated visits that since they were involved with GVT they could not be given this help.

This year, 12 groups made an application once again through Gram Pradhan to the Sabhapati. Repeated enquiries elicited no information. It was, however, learnt that the funds were given to a farmer, Kula Badal, in Sabarpeta Village in October.

Nardha⁹

The Panchayat pond needs to be renovated and leased on a long-term basis.

The newly excavated pond needs to be deepened for year round fish culture.

To create a resource for aquaculture and crop irrigation, the Irrigation Department may harvest rainwater on the western

side of the village that is under the control of the Panchayat, where water gets collected annually in the existing depression but dries up after two to three months.

Mr Kajal Mahato, belonging to a nearby village called Patashimul, has a 1-ha pond in the vicinity of Nardha. This pond is in excellent condition and Mr Mahato has invested over Rs 60,000 in seed (including the freshwater prawn, *Macrobrachium rosenbergii*) and feed, but the fish are not growing. He therefore visited the *bundhs* wherefrom he was getting the seed and found that the broodstock of most fish was small (about 500 g) in size, Catla being about 1 kg. This was the reason for the poor growth of fish in his pond. Sources of good quality seed in this region need to be explored. He has had no training nor traditional experience, but is a keen farmer who appears to be following the various steps remarkably systematically.

⁹ Mr Purna Chandra Soren, *Juba Jagrata SHG*, Lalbona, and Mr Jagdish Singh, Jankar, *Krishi Pragati SHG*, Banstola, who had accompanied the team on a cross-visit, were unhappy to note the poor results despite the sincerity and enthusiasm of the group members in Nardha. They strongly felt that besides the problems of poor quality seed and lack of proper resources, there is a strong case for further training to take up aquaculture on scientific lines.

Besides community training, 3-4 Jankars should be given at least 15-day intensive training in various aquaculture operations.

As good quality seed is not available, the Fisheries Department may organize such supplies through reliable hatcheries early in the season.

The facilities available from the government for Scheduled Tribes should be properly publicized and poor, illiterate and “backward” people helped through periodical visits by officers of the Fisheries Department.

Banstola

Training in breeding and seed rearing both for men and women is felt necessary.

Extension through NGOs alone can result in widespread dissemination and adoption.

Gram Sansad should discuss the aquaculture programs so that they are strongly supported and extension at the lower levels made possible.

Village groups should have an easy and direct approach to government officials through the Panchayat Pradhan. The process needs to be simplified.

A cooperative society or an apex body is planned to stay together since the groups have broken into SHGs that have a limited membership.

Non-availability of quality seed is a great impediment and the group expects that its supply should be organized either by GVT or the government.

Relevant information and procedures need to be provided to avail of the facilities for Scheduled Tribes offered by the government.

6. Service Providers' Perspectives on the Implementation of Government Schemes in Support of Aquaculture for Poor and Tribal Groups (West Bengal)

Principal Investigators

Dr S D Tripathi, Consultant, Mumbai (Principal Investigator); Mr Gautam Dutta, Field Specialist Aquaculture, GVT West Bengal, and Ms Jhinuk Ray, Community Organizer, GVT Jhargram (Co-Principal Investigators)

A PowerPoint presentation of this Case Study, and a film documentary of this and the previous Case Study, are included on the Project CD-ROM. The Case Study text appears on the following pages.

Origin

This Case Study from West Bengal was proposed by:

Mr Kuddus Ansary, Jankar, Khawasdih Village, Barabazar
 Dr Virendra Singh, GVT West Bengal State Coordinator, Purulia
 Dr K P Singh, Field Specialist Aquaculture, GVT Ranchi, Jharkhand
 Dr Snehashish Mishra, Research Assistant, Self Recruiting Species Project, Purulia
 Mr Ashish Kumar, Deputy Director, DOF Ranchi, Jharkhand
 Mr B N Baskey, CEO, FFDA Purulia
 Mr N K Dey, District Fisheries Officer Co-operatives, Purulia
 Mr Nitai Mishra, Manager, Central Fishermen's Co-operative Society, Purulia

In the State-level Workshop, planning discussions with Mr Ashish Kumar and Dr Tripathi were held with Dr T Mandal, Assistant Director of Fisheries, Purulia, Mr N K Dey, Mr B N Baskey and Mr Nitai Mishra.

Duration

Originally proposed to commence in July 2002, the Case Study was to begin in September following its setting up in August. Owing to further delays, fieldwork ran through October and November 2002, with opportunities to report progress and get feedback during the Stakeholders Workshop in January 2003. Final presentation of the Case Study was made at the Policy Review Workshop in Noida, Delhi, in April 2003.

Location

The location initially proposed was Hura Block with the possibility to consider Barabazar and Balarampur Blocks too, all in Purulia District, where both GVT and government support has been available. During discussions, it was decided to cover Keshargarh Village in Hura Block and Chhotogado and Bara Urma Villages in Balarampur Block, as the concerned Fisheries Extension Officers are located in these two blocks.

Key Informants

Key informants included:

District Fisheries Officer
(Co-operatives)¹⁰

Assistant Director of
Fisheries, Purulia District
Fisheries Extension
Officers of the concerned
blocks

Primary fishermen co-
operatives

NGOs such as PRADAN
and *Kalyan Krishi Vigyan
Kendra* of the Ram
Krishna Mission

Panchayat Raj Institutions
(Sabhapati¹¹, Pradhan¹²,
Karmadhyakhya¹³)

Service banks in the proposed blocks including SBI, UBI, NABARD and MGB¹⁴, and
Local traders for seed and fish



Purulia and Midnapore Districts

Method

The Case Study methods were individual interviews and small-group discussions around issues emerging from the fieldwork that related to policy and recommendations for changes. The Principal Investigator, Dr S D Tripathi, took charge of conducting interviews and documenting the outcomes. Mr Gautam Dutta and Ms Jhinuk Ray, Co-Principal Investigators, supported the conduct of individual interviews, meetings and writing. All district officials and lead banks were based in Purulia; *gramin* banks were at block level.

Contents

The sections of the Case Study on the following pages include:

1. Department of Fisheries, Government of West Bengal, Purulia
2. Non-governmental Organizations
3. Fishermen Cooperative Societies
4. Fish Traders
5. Panchayati Raj Institutions
6. Comprehensive Area Development Corporation (CADC) Ltd, Purulia
7. Banks

10 These are fishermen's cooperatives which are often recipients of service provision for aquaculture, including pond leasing, fry sale or receipt and extension.

11 The chairperson of the Panchayat at block level (The district level institution is Zila Parishad and the head is Sabhadhipati).

12 The subdivision-level officer of Panchayat (Pradhan is the head of Panchayat at village level).

13 A West Bengal local government position, head of the village Panchayat, the lowest unit of local governance.

14 The acronyms relate to various local development banks.

Where possible information was sought from each informant (group), on these issues:

Mechanism for leasing of ponds

Mechanism for provision of loans

Process for supply of material inputs

Timeliness and scheduling of loans, inputs and services

Process for the selection of beneficiaries including key actors from DOF and Panchayat Raj Institutions and their interactions

Process for communicating (about government schemes and technical extension messages, any systems for feedback, cross-checking and streamlining the system)

Marketing support, networking and strategies and the role for farmers, the DOF and banks in decision-making about harvesting and their impacts on market opportunities.

1. Department of Fisheries, Government of West Bengal, Purulia

Interviews and discussions were held with Dr T Mandal, Assistant Director of Fisheries (ADF); Mr B N Baskey, District Fisheries Officer (DFO), Purulia, with additional charge of Chief Executive Officer (CEO), FFDA; Mr Nabo Gopal Rana, DFO (Training) and Mr N K Dey, DFO (Cooperatives).

Dr T Mandal, ADF, gave a brief on the status, scope and activities of the department in Purulia District (Annexure I).

Fish Farmers' Development Agency

The scheme became operational in Purulia District in 1981 and has by now covered 6,467 ha with 29,570 beneficiaries, the average productivity ranging between 1,500 and 1,800 kg/ha. The seasonal nature of ponds is a serious limitation to productivity. As against the target of 50 ha in 2001-02, the project has covered 48 cases with 50.81 ha and 150 beneficiaries.

The Inland Fisheries Project (FFDA) has four models:

1. No excavation, only culture costs for first year
2. Semi-derelict pond requiring 0.3 m of excavation and culture costs
3. Semi-derelict pond requiring 0.6 m excavation and culture costs, and
4. Derelict pond requiring 1 m excavation and culture costs.

The project cost varies from Model 1 (Rs 35,870) through Model 2 (Rs 72,270), and Model 3 (Rs 1,10,670) to Model 4 (Rs 1,31,200). The subsidy is 20% of the project cost but is limited to Rs 6,000 except in the case of Scheduled Caste and Scheduled Tribe farmers, where it is 25% of the project cost but limited to Rs 7,500. The same applies to renovation costs with a ceiling for each model. The culture costs are fixed at Rs 30,670.

Mechanism for Lease of Ponds

The government-vested tanks have been transferred to the Panchayats that lease them through bidding following announcements through drum beating, announcements on Block and Panchayat Office notice boards, and information through Panchayat Pradhan and Panchayat members. There are clear instructions regarding the priority to be assigned to the Cooperative Societies while settling the lease. The lease is, however, on a yearly basis and is settled in May.

Mechanism for Provision of Loans

In the meetings of the Standing Committee and the Gram Panchayat, the availability of loans is discussed. Those desirous make applications on plain paper giving details of ponds, ownership and their status, which is forwarded by the Pradhan to the Block Office who passes it on to the FEO for verification. Once satisfied, the FEO asks the farmer to fill up the prescribed Application Form and provide the required documents. The FEO visits the site and prepares the "Techno-economic Feasibility Report" as per the prescribed proforma. The report of the FEO is submitted to the Standing Committee that recommends the loan to the Panchayat Samiti and sends it to the bank with a copy to the Chief Executive Officer (CEO),

FFDA. The CEO also submits a techno-economic report to the Block Office that is forwarded to the bank with recommendations.

Earlier the banks accepted the oral lease system started by the Government of West Bengal for ponds less than 0.66 ha but this is not practiced any more.

On receipt of the “Techno-economic Feasibility Report”, the bank officers undertake a joint site visit. If the project appears feasible and justified, and the farmer(s) has no background of default, the loan is approved and the CEO informed to release the subsidy. When the bank receives the cheque for the subsidy amount, it releases the loan amount to the farmer or the group.

Process for Supply of Material Inputs

Normally, the Central Cooperative Society is advised by the bank to supply the inputs but owing to distance, non-availability of inputs on time and also its quality, farmers are permitted to purchase from local sources and the payment is effected by the bank on receipt of delivery challans.

Timeliness of Loans, Inputs and Services

It takes at least 3-4 months for the loan to be disbursed. The material inputs take from 15 days to two months. However, training is organized only after the loan is sanctioned and at least for 20 farmers at a time. Training is not arranged until the requisite number are available.

Process for Selection of Beneficiaries

It is the sole prerogative of the Panchayat Samiti, though FEO or CEO may recommend a certain case.

Process for Communicating

The Pradhan and Members of Gram Sansad meet every six months and discuss the government schemes. FEO and CEO are the agencies that disseminate information to farmers through meetings and discussions. All communication is through letters. Farmers may make personal enquiries.

Marketing Support

Neither the FEO nor the CEO provides any marketing support to farmers. The farmer decides when he should harvest and where he should market.

Training and Extension

Mr Nabo Gopal Rana, DFO (Training), indicated that three different categories of training programs are conducted for FFDA farmers:

1. a 4-day program at the block level
2. a 10-day program at block level, and

3. a 30-day training program, held only once in a year at district headquarters which is participated in by trainees from 2-3 blocks. Those who do well in the 30-day program are later sent to the State Centre at Kalyani for advanced training for two months. Each trainee is paid a stipend of Rs 50/day.

Besides these, there are a number of specific training programs for which the duration and curriculum have recently been revised. During 2001-02, under the tribal sub-plan 180, beneficiaries were trained on the ten-day program.

Mr Lal Mohan Banerjee, FEO, Joypur Block, located 26 km from Purulia, indicated that he attends the Block Office for three days in a week and the Head Office (HO) at Purulia for another three days. He is responsible to the ADF Purulia, and to the Block Development Officer for technical services in the field. There are 3,500 ha of water bodies, most of them privately owned, of which 75% are under aquaculture. There is a Fishermen's Cooperative Society in the block that covers about 20 ha of water area comprising six ponds.

There are seven Gram Panchayats in Joypur Block. The Panchayat is headed by a Pradhan who is a member of the block-level Panchayat Samiti that is headed by the block Sabhapati. The Block Development Officer is the Ex-Officio Executive Secretary of the Samiti. Each Sarpanch is a member of the Standing Committee on Fisheries and Animal Husbandry at the block level where all the government programs are discussed and necessary information provided. The information on various issues such as provision for lease of ponds, bank loans and supply of inputs was similar to that provided by the CEO (given above).

Fishermen Cooperatives

Mr N K Dey, DFO (Cooperatives), informed that 47 fishermen cooperatives have been registered in the district so far but only 20 of them are functional; the rest are either inactive or defunct. The membership of these societies varies from 50-700. The procedure for formation and registration of societies is given in Annexure II.

2. Non-governmental Organizations

Only two NGOs – *Kalyan Krishi Vigyan Kendra* and PRADAN – were visited and the information gathered is presented here.

Kalyan Krishi Vigyan Kendra (KKVK), Jahajpur, Purulia

KKVK is affiliated to the Ram Krishna Mission. Discussions were held with Mr Sanjib Kumar Bhattacharya, Training Organizer and Officer-in-Charge, and Dr Bikas Roy, Fisheries. The organization was established in 1992-93 and has been working with village-level youth organizations that exist in the form of clubs. About 200 active clubs in six clusters exist within a radius of 50 km. Each club has, on average, 30 members including men and women. In the last ten years of its existence, 12 villages have graduated with an integrated development program while about 60 villages have had training alone.

The KKVK is not involved in organizing the lease of ponds and provision of loans, nor does it provide any marketing support.

Process of Supply of Material Inputs

Inputs are provided in the form of fry (8,000/ha) and lime (250-300 kg/ha) alone and only to those groups where demonstration is being conducted. The KKVK brings quality spawn from an established hatchery and rears it to fry stage at its own farm. About 30 kg of fry valued at Rs 6,000 were supplied for demonstration during 2001-02. (The fry are sold for Rs 150-200/kg that contains about 1,500-2,500 fry depending on its size.) Farmers transport the fry themselves on cycles or else engage a jeep or a truck depending on the quantity and the distance.

Timeliness and Scheduling of Inputs and Services

A three-day on-campus training is arranged first, followed by one-day off-campus training in the village itself. Such programs are organized 2-3 times in a year. Besides this, an annual ten-day hands-on training for 25-30 participants is also organized annually at the KKVK. This is a prerequisite for demonstration. The inputs are also supplied on time.

Process for Selection of Beneficiaries

A PRA survey is initially conducted and about 20-25 villages are selected at a time for demonstration of various activities. The club members attend the monthly meetings at the Kendra and focus on the needs of the village(rs), whence it is decided as to how available resources in the village could be best utilized. If there is a demand for aquaculture and the resources are available, then it is selected.

Process for Communicating

The monthly meetings and the visits of the KKVK's officers to the villages enable personal discussion.

General Observations

KKVK has introduced *Labeo bata* in the culture system for which there is a great demand. It brings about 8-10 lakh spawn from Mogra and rears it with 60% survival up to fry stage.

KKVK ensures seed quality, size and timely distribution, which the villagers greatly appreciate. At least in 12-15 villages, farmers have an extremely good idea of the techniques and follow them religiously, with the result that their production levels are of the order of 2.5-3.0 t/ha/yr. The wholesale rate for 500-g Rohu is Rs 55/kg while that of Catla is Rs 40/kg.

KKVK also supplies quality fry to other farmers in the locality and the sales for 2001-02 amounted to Rs 37,000.

Professional Assistance for Development Action (PRADAN), Purulia

Mr Dinabandhu Karmakar, Manager, provided the following information:

PRADAN is registered as a voluntary organization in Delhi. Its activities are spread over villages in 26 districts in seven states (Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan and West Bengal) through 19 projects managed by small teams of professional and motivated experts in agriculture, engineering, veterinary sciences, social work and rural management, based in the field. PRADAN focuses on promoting and strengthening the livelihoods of rural poor people. This involves organizing them, enhancing their capabilities, introducing ways to improve their incomes and linking them to banks, markets and economic services. Of the 19 projects, 11 are located in Jharkhand alone.

During 2001-02, PRADAN worked with 83,000 families excluding those who have graduated with its assistance. From the sectoral approach followed earlier, it has now shifted to an area-based approach promoting and strengthening Self-Help Groups (SHGs) of women. The projects mobilized over Rs 56 million as investment, which included people's own savings, bank loans and grants from the government received directly by the people. It works in collaboration with government agencies and banks at all levels and also other voluntary agencies.

The participants in PRADAN's projects are mainly tribal communities followed by *Dalits* and other disadvantaged groups. PRADAN promotes an informal association of 10-20 socio-economically-homogenous, poor women from a single village or hamlet, who meet regularly to transact the business of savings and credit. About 15 mature SHGs in a geographically contiguous area form a cluster. The cluster is a forum for cross-learning, inter-group problem-solving and solidarity. PRADAN has found that credit and savings is in itself a useful livelihood-enhancing service for "very poor" people and therefore it begins its work by promoting SHGs which can mobilize credit from banks. It has proved to be a highly effective way to organize women for livelihood promotion as well as broader social and political empowerment. During 2001-02 alone, it organized 250-300 SHGs in each project location to work within a compact area. By March 2002, PRADAN had promoted 4,126 SHGs with over 57,000 women members and linked 1,247 groups with the banks. Further, the SHGs mobilized Rs 11.3 million as savings and extended credit worth Rs 24.7 million to their members out of their savings.

In addition, 1,286 people from local communities were also trained to provide paid accounting services to the new groups and 276 support accountants were trained to provide higher order accounting services, such as audit of group accounts.

The inability of people to identify meaningful economic opportunities for investment is a significant constraint in enhancing livelihoods. PRADAN has, for the first time, trained nearly 100 SHGs in 2001-02 in identifying livelihood opportunities for themselves using PRA techniques and behavioral tools. These activities ranged from paddy processing requiring an investment of Rs 20,000 per group to cattle trading requiring an investment of Rs 2 lakhs per group with expected additional incomes ranging from Rs 4,500 to Rs 40,000 per group.

PRADAN has also been involved as a Project Implementing Agency (PIA) in the National Watershed Development Program of the Government of India to enhance the productivity of

land and water resources by conserving and managing rainwater and by introducing more productive and sustainable farming systems. In West Bengal, it is assisting Panchayats, as these have been assigned the role of PIA by the government. By March 2002, seven micro-watersheds were completed in Purulia at a cost of Rs 40 lakhs for 630 families. There is no aquaculture activity so far in these watersheds but it is proposed to examine it now.

PRADAN has constructed some 20 small seepage tanks (30 x 30 m) in the valley area on tribal people's own land in Godda (Jharkhand) and Jhalda (Purulia) that have been found to retain water throughout the year. The ponds will now be utilized for fish and prawn culture. One farmer has already earned Rs 3,000 from his pond during the current season by raising a crop of fry early in the season.

PRADAN trains members of Gram Sansad and Gram Panchayats also, which helps in organizing activities. It does not have an aquaculture program but, when taken up, training in fish and prawn culture will be organized in advance at Midnapore.

PRADAN receives financial support from several Indian and foreign organizations. The major Indian agencies are Ministry of Rural Development, CAPART, NABARD, Central Silk Board, Sir Dorabji Tata Trust and Sir Ratanji Tata Trust. Overseas donors are Ford Foundation, ICCO (Netherlands), India Canada Cooperation Organization, OXFAM (India) Trust, AusAID, Embassy of Japan and CARE (India).

3. Fishermen Cooperative Societies

Three Cooperative Societies in Balrampur and Hura Blocks were taken up for the Case Study and visited, along with officers of the Department of Fisheries, Government of West Bengal.

Chhoto Gadu Matsya Jeebi Samabaya Samiti Ltd, Balrampur

Mr N K Dey, DFO (Cooperatives), and Mr Ujjawal Kanti Ghosh, FEO, organized the visit and discussions and provided the information summed up here. The society was established in 1976 and has a present membership of 117 fishermen. The society has a seven-member Managing Committee with Mr Nepal Chandra Majhi as Manager. Mr Ujjawal Kanti Ghosh, FEO, Balrampur, is the Chief Executive Officer of the society. The society was given the lease of the Hanumata Dam (212 ha) by the government (Panchayat) for 20 years in 1988 for a nominal amount of Rs 3,800 per annum. The dam is under the control of the Executive Engineer, Agri-Irrigation Department.

The Society had received an amount of Rs 14,23,599 towards the project cost from the National Cooperative Development Corporation (NCDC) in 1998-99 as detailed below:

Loan component	Rs 762,080
Subsidy	Rs 279,330
NCDC's share	Rs 280,319

The society has been provided with nets worth Rs 1,102,907 and two boats valued at Rs 43,692. The society has constructed an office building with a godown and some nursery ponds for raising fish seed. The society has been stocking fingerlings (100-150 mm) rather regularly – in 1999-2000: 36,000, 2000-01: 70,000 and 2001-02: 95,000 – but details on

species and size are not available. As the dam is having plenty of submerged aquatic weeds, grass carp (100 mm) were also stocked in 2000. No stocking was done this year owing to seed shortage and drought.

The Manager mentioned that silver carp and bighead are also found in the dam, though occasionally, but no effect of grass carp is noticed so far. This is not surprising as the dam has boal (*Wallago attu*) weighing as much as 10-15 kg. About 8,000 traps are also used for catching prawn and local fish, but no record is kept including that on commercial species. The average daily catch of the miscellaneous fish is about 150 kg of which 20 kg are prawns. The fishermen are unable to catch the fish as they are not adept at handling gill nets. The status of the Society is reflected below:

Fish sale (approx 60,000 kg)	Rs 1,88,762
Expenditure	Rs 1,01,870
Net profit	Rs 99,810

The income per fisherman thus works out to only Rs 853/year.

It is unfortunate that silver carp and bighead (the latter has not been legally introduced in the country) have been stocked in this dam and, if they survive, these will adversely affect the growth of the indigenous Catla and Rohu. Grass carp, it appears, has not had any impact so far as the weeds are still in great abundance and hampering fishing. Though gill nets have been provided, fishermen do not have the required skill to operate them. Predators abound in the dam and no efforts have been made to control them.

Baro Urma Fishermen's Cooperative Society Ltd, Baro Urma Village, Balrampur Block

The visit was made along with Mr N K Dey, DFO (Cooperatives), and Mr Ujjawal Kanti Ghosh, FEO, Balrampur Block, who organized the discussions and made the information on the Society's status available. The Society was registered with 98 members (92 men and six women), all belonging to the *Koibarta* (Scheduled Caste) community. Its Board of Directors comprises six members, including Mr Kanai Koibarta, Chairman; Mr Gurupada Koibarta, Vice-Chairman and Mr Rabi Koibarta, Secretary. The Executive Secretary is the FEO, Mr Ujjawal Kanti Ghosh.

The Society has been given the Kumari Dam on lease for five years at Rs 2,935 per year. The lease amount for the year beginning 1 February has always to be paid in advance. The Annual General Body Meeting was held on 28 September 2002 when the audited report gave the details of fish sales of Rs 10,878 and profits of Rs 1,880. Thus the net income per fisherman works out to Rs 19.18 only.

The Society has received an amount of Rs 1,213,277 in 1998-99 towards the project cost for a five-year period from the NCDC that had these components:

Loan	Rs 6,36,053
Subsidy	Rs 1,90,448
Share capital	Rs 2,92,695

The Society's own contribution is of the order of Rs 84,121. The society has purchased nets worth Rs 983,407, three boats valued at Rs 104,870 and constructed four fish nurseries for Rs 120,000.

There is no record of fish seed stocked in the dam except that Rs 75,000 was spent on seed during 1998-99. Stocking was not done during 2001-02. There is no Catla in the dam but 2.0-2.5 kg of Rohu and 1.0-1.5 kg of Mrigal are caught, though the catches are rather poor. It was reported that a large quantity of fish nets washed during the monsoon when the gates are opened. Weeds are also in great abundance, besides boulders and trees that have been submerged; all these hamper fishing. The neighboring villagers do poach but that is largely limited to weed fish.

The grant-in-aid received from the Ministry of Agriculture, Department of Animal Husbandry and Dairy, has been used for construction of 88 houses at Rs 35,000 each for the fisher families. A community hall is also to be constructed besides four tube wells.

It is a sad story that such massive support has also not yielded any results. If the society does not profit, what is it meant for and what is it providing to its members?

Fishermen Cooperative Society Ltd, Keshargarh, PO Rakab, Hura Block, Purulia District

The visit was made along with Dr T Mandal, ADF, and Mr N K Dey, District Fisheries Officer (Cooperatives), Department of Fisheries, Government of West Bengal. The FEO, who is in additional charge of Hura Block, could not join the team.

Leasing of Ponds

The Keshargarh Fishermen's Cooperative Society Ltd was registered on 9 February 1977 and had turned defunct by 1995-96 due to running losses on account of poaching in the four privately-owned leased ponds that were at a distance from the village, and also differences among the members. The membership fee was Rs 10 per person.

Provision of Loans

The Society had taken a long-term loan of Rs 240,000 from the PCCB in 1989-90 that was, however, paid in full in six years. Along with the loan, it had also received a subsidy of Rs 30,000 from FFDA and another Rs 30,000 from the DRDA that had remained unutilized.

The Society was revived again in 1999-2000. Its audit for the last ten years from April 1992 through March 2002 has been conducted recently and the Annual General Meeting held on 26 June 2002. Its present membership is 257 with six members on the Board of Directors elected on 18 April 2001. Mr Bhim Chandra Koibarto is the Chairman and Mr Nanda Lal Koibarto, the Secretary. Its present status in terms of assets and liabilities and income and expenditure is given below:

Paid up share capital	Rs 1,840
Reserve fund	Rs 31,479
Working capital	Rs 261,098
Cash in hand	Rs 1,240
Net profit	Rs 284,510
Fish sale (in ten years)	Rs 71,700
Bank deposit	Rs 133,000
Value of fish stock	Rs 278,660

The FEO posted in the block had prepared the project and recommended it to the Samiti for approval. Since it was the only fishermen's cooperative, it was preferred and selected. The loan was received in about 5-6 months. Inputs were received on time. Training was also received on time though only a few fishermen were trained then at block and district levels. The inputs were received from the Central Cooperative Society. There was no support and the fish was given to a merchant.

Present Status of the Society

The Society with 257 members has presently leased four private ponds (total area of 5.1 ha) for a period of five years beginning in 2001 for a total amount of Rs 10,000/year. This is too small an area for such a big society. The fish is now taken to Purulia and Adra for marketing, unlike in the earlier days.

Suggestions

The fishermen have no nets of their own and have to pay Rs 200 towards netting charges for each day's harvest. The society wants that it could be supported by nets of various mesh sizes as well as dragnets for fry collection from nursery ponds.

The 5-ha area is so small for such a big society. It wants to be given more ponds. There are two large (15 ha and 20 ha) ponds in the village. The larger one of them, *Kalia Bundh*, is under dispute as it was on a ten-year lease but the amount for only two years has been paid. It could be cleared by the Panchayat Samiti and given to them.

Since large quantities of seed would be required, the society wishes to establish a hatchery for which it needs the support of the Fisheries Department.

For seed rearing they also want a few nurseries to be dug.

Finally, since quite a few of them do not have proper houses, they want that houses could be constructed for them under the government schemes.

4. Fish Traders

Fish traders of Purulia town are united as a group under a cooperative known as *Shri Durga Matsya Jibi Sambaya Samiti*. The following information was gathered from the Chairman and Secretary of the Samiti as well as one of the oldest and respected traders.

Background Information

An interesting episode – a mix of community interest and business – surrounds the birth of the *Dheebar Samiti*. Years ago, when some fishermen went to a local temple in Chowk Bazar for *puja* they were not allowed in and the *pandits* refused to oblige them. Feeling deeply aggrieved, they decided to have their own temple. The *Dheebar Samiti* was thus founded in 1927 with 11 families who built a small temple with their own collections. But none of the local *pandit* were ready to perform the *puja* in their temple as they belonged to a lower caste. Then a *pandit* came from a neighboring village, Mejhia, in Bankura District and the regular *puja* started.

The Samiti made certain rules for donations and contributions to run the temple and create assets for its sustenance. Those who would not have a boy child to continue their generation would donate their entire property to the temple while those who would have daughters would give half of their property as a donation. There were 64 households of which 43 are left now; 21 households have had no next generation. These fishermen were involved in spawn trade, its rearing and culture. The spawn was brought from the *bundhs* in Bankura District and, after rearing, the fry supplied to the neighboring farmers within a radius of 200 km in earthen or aluminum *hundis*. There was a well-established seed market when Purulia town had a population of about 3,000 people with no roads and electricity.

Shri Durga Matsya Jibi Samabaya Samiti, Purulia

The fishermen formed a cooperative society called *Shri Durga Matsya Jibi Samabaya Samiti* and registered it in 1965 with 120 members. The members were having their own ponds of which 80% were sold owing to several problems. Hence, the society started leasing the *bundhs* and the municipal ponds and continued with the seed trade that involves about 70 fishermen seasonally. The *bundhs* were given on a ten-year lease earlier but now it is limited to three years. The society turned non-functional in 1987 and was revived only in August 2002. The membership for the society is Rs 11 per family with Rs 15 as a one-time donation. Today, 1,400 families are its members. The society has been given nets and *hundis* worth Rs 185,000. Though the cooperative societies are entitled to get the first preference for lease, the 20-ha *Bucha bundh*, just by the side of the temple, was auctioned by the municipality for Rs 11 lakhs. The society approached the District Magistrate but the Paur Sabha did not pay any heed even to the DM's orders. The lessee, however, could not undertake the culture operations and the *bundh* is now fully choked with weeds in less than two years.

Mr Maru Dheebar, one of the oldest and most established traders, mentioned that the seed trade from May to August is of the order of Rs 1 lakh/day or Rs 1.20-Rs 1.50 crores per season. It is the middlemen and those that purchase the seed from here and sell it again in different pockets who are the people who are earning 3-4 times more than the producers. About 300-400 vehicles bring about 300 kg of fry each, thus landing 900-1,200 kg in the spawn market (per day or in the season) that is held in the premises of the Durga Mandir. The Mandir charges a commission of Rs 2 per *hundi* and realizes about Rs 25,000 in a season. This is an additional annual source of income.

The Samiti's members are "very poor", only 20% being in a condition to have food twice daily. The Samiti gives Rs 320 for funeral ceremonies of poor people. It has constructed a Dharmashala for its own community that is rented on special occasions for celebrating

marriages and festivals. A primary school has also been opened for their children where no fee is charged. The government has, however, provided a teacher.

The fisherwomen, however, purchase fish from the *hats* and sell them in different places, with about 126 women involved in marketing.

5. Panchayati Raj Institutions

West Bengal is one state in India where the Panchayati Raj institutions are popular and effective. Officials from seven institutions ranging from Zila Parishad to Gram Panchayat were approached for the Case Study.

Sabhadhipati, Zila Parishad, Purulia

Mr S K Banerjee has been Sabhadhipati without a break ever since he was elected in 1978. He wondered how farmers belonging to the Scheduled Tribe and Scheduled Caste categories, who have neither land nor perennial ponds, could be helped. He claimed that the fishermen were given a seven-year lease for the big tanks. He was of the opinion that a breeding center should be established where simple, low-cost seed production techniques could be demonstrated along with seed rearing up to fingerling size. Low-cost feed should be developed, the techniques of preparation demonstrated to farmers and necessary equipment also provided to them. Marketing information should be collected and provided to farmers, and cold storage and processing units established.

Sabhapati, Balrampur Panchayat Samiti

Mr Kokil Rajak, Sabhapati, talked about people “below the poverty line” (BPL) and belonging to Scheduled Caste and Scheduled Tribe categories. Where would they undertake fish culture? Where are the resources? The local culture has been felling the trees and not plantation, fishing but not fish culture, killing birds but not raising them. It is a poor district with no water. No one can claim facilities as a matter of right. Let the people be motivated first. Gram Sansad should construct ponds and line them with clay to prevent seepage so that fish could be cultured there. He would prefer loans and input supplies to be effected in time but this is just not possible in practice.

Sabhapati, Hura Panchayat Samiti, Hura

Mr Johar Lal Das, Sabhapati, gave some general suggestions. While the Gram Sansad proposes the names of the beneficiaries, it is the Gram Panchayat that selects, giving priority to those “below the poverty line”. He mentioned that since those belonging to Scheduled Castes and Scheduled Tribes have no ponds, several have been dug for them but he could not say where.

Block Development Officer-cum Executive Officer, Hura Panchayat Samiti

Mr B N Paul, BDO, clarified some of the doubts on leasing of ponds and mechanism of loan besides suggesting: “There are hardly a few people who are fishery-dependent; it is an additional activity. They should form cooperative societies or SHGs and avail of the micro-credit system of the banks and training facilities of the government”.

Pradhan, Tentula Gram Panchayat, Balrampur Panchayat Samiti

Mr Samtul Tudu, Pradhan, mentioned that there were 51 seasonal ponds having an average size of 0.4 ha in Tentula Gram Panchayat. Mini-kits are provided for short-term culture.

Leasing of Ponds

The ponds are leased by bidding, notices are issued and members informed. The lease amount varies from Rs 50-100 per pond. Sometimes owners also transfer their ponds to the government for excavation and renovation, which are then leased out for a period of three years.

Provision of Loans

Last year three *bundhs* (average size of 1.5 ha) were recommended for loans following the same procedure as in other places.

Selection of Beneficiaries

There are 13 elected members in the Panchayat who make the selection based on the applications received. Sansad Sabha meets twice a year in November and May. Members recommend for training of unemployed youth so that they may undertake fish culture in Panchayat ponds. However, it is only the fishermen (*koibarta*, Scheduled Caste) community that undertakes fishing in the ponds and sells the fish.

Process for Communicating

While letters are issued by the Executive Officer on behalf of the Samiti, the Pradhans themselves inform the beneficiary about his selection.

Karmadhyaksha, Hura Panchayat Samiti, Keshargarh

Mr Madhusudan Sen belonged to a different political party than the Pradhan of the village and the two did not see eye-to-eye. The present Pradhan has taken the matter of the *Kalia bundh* to court and hence it is not available to the society for culture. Hura Block has ten Panchayats.

6. Comprehensive Area Development Corporation (CADC) Ltd, Purulia

The team also had the opportunity to meet and have the opinions of a well-known and respected leader of the area, Mr Manindra Gope, Vice-Chairman, CADC. Outlining the richness of Purulia District – in terms of water bodies that comprise about 70,000 ha belonging to three categories: those that retain water for (1) six months, (2) nine months and (3) round-the-year – he felt that these could be profitably utilized for aquaculture.

He lamented the poor quality of spawn and wanted that a simple, low-cost technology for fish breeding should be developed and demonstrated for production of quality spawn as the establishment cost of a hatchery is quite high. He has established a freshwater prawn hatchery in Tamluk that produces 5-6 lakhs of post-larvae. He contended that the fish from this laterite

zone was tastier than that from 24 *paraganas* owing to the natural availability of rock phosphate that was good for fish growth. However, the soil was deficient in boron. The abundant availability of lac wastes in this region was also a good cheap food for fish and helps fish to grow to 1 kg in a year. He has been using it in his own farm. As the fish grows the fastest between *ashad* (July) and *ashwin* (October), it should have plenty of natural food and effective management. He also lamented the non-availability of small fish (medium and minor carps) owing to pollution from fertilizers, chemicals and pesticides, and failure of natural breeding.

Lastly, finance is vital for development and the natural resources of the district need to be utilized properly. Tribal groups could be provided free spawn under the mini-kit scheme and trained in seed production whereby they would earn much more. The Panchayats could develop such a scheme.

7. Banks

The following five banks were visited and the Managers and Deputy or Assistant Managers contacted:

Purulia Central Cooperative Bank (PCCB), Purulia

Mr A K Datta, Assistant General Manager, informed that the PCCB is an agricultural bank that has helped 12,000 small and marginal farmers, advancing them an amount of Rs 650 lakhs for income-generating activities since its establishment in 1975. Of these, about 500 are fish farmers who have received about Rs 40 lakhs. The bank provides loans to affiliated societies who in turn advance them to farmers. According to him, there are 48 societies in Purulia District with a membership of 4,500 fishermen and fish farmers. However, it is the West Bengal Scheduled Caste and Scheduled Tribes Finance Corporation that provides the subsidies, though not in the fisheries sector.

Small Scale Industries and Business, Purulia

The officer who looks after the Fisheries Section, being away on training, could not be interviewed. However, Mr S K Bhattacharjee, Deputy Manager, agreed to provide all information as he was previously connected with the fisheries program. His branch, though catering to rural areas, did not have a big fisheries activity, limited to about 10-15% and covering only those cases that were sponsored by the District Fisheries Officer.

Mallabhum Gramin Bank (MGB), Purulia

Mr S K Roy, Area Manager, indicated that MGB is a regional rural bank for four districts – Bankura, Purulia, Midnapore 1 and Midnapore 2 – with 176 branches and seven Area Offices. During 2001-02, the bank provided loans to 263 farmers in Purulia District alone, amounting to Rs 1.166 million, but the overall rate of recovery has always been poor at about 20%.

Central Bank of India (CBI), Balrampur

Mr S K Roy, Manager, informed that the bank provides loans only to FFDA-sponsored farmers. Only one farmer was provided a five-year loan amounting to Rs 68,000 last year to be refunded in 60 installments.

United Bank of India (UBI), Purulia

Mr Parikshit Subbuddhi, Deputy Regional Manager, mentioned that the bank has 37 branches in Purulia District, but information regarding the total amount of loans advanced during 2001-02 by all these branches was not readily available. He, however, furnished information in respect of only two branches, Dubra and Babugram, where seven farmers were advanced Rs 69,000 during the last six months between 1 April and 30 September 2002.

Service Provision by Banks

Mechanism for Leasing of Ponds

The banks are not involved in the leasing of ponds.

Mechanism for Provision of Loans

As many ponds in West Bengal are under multi-ownership, the government had authorized the Panchayats to issue oral leases in favor of those who were interested in fish culture. The Panchayats settled the issue of sharing profits among different owners and enabled the use of ponds in favor of an individual or a group of owner-farmers for a period of five years. The banks had, until recently, been providing loans on recommendations based on oral leases, but since the issue of oral leases is now *sub judice*, no further loans are given.

The banks rarely provide loans to farmers directly unless they are sponsored. Further, banks do not comment on the projects prepared and recommended by the DFO, except that a bank officer visits the site along with the FEO and verifies the genuineness of the existence of the pond – seasonal or perennial – and its legal status and the farmer. The amount is paid to the farmer based on the recommendation of the DFO as per bank rules, but only after receipt of the subsidy amount from the DFO and information on the farmer's contribution, if any. The loan amount is reduced to that extent. No loan is normally given to a person who is a defaulter but a person already having a loan in his name is considered for a second loan, provided his bonafides are well established and he has been scrupulously following the repayment schedule. Having satisfied, the loan is approved and the farmer informed through a letter. In the case of FFDA farmers, the farmer is informed only on receipt of the cheque pertaining to the subsidy amount. This amount from the FFDA is kept as a fixed deposit by the UBI, on which it pays interest to the farmer at the prevailing rate. The subsidy and interest accrued thereon are paid to the farmer once the loan is refunded.

The refund in case of seasonal ponds is after harvesting, while half-yearly in respect of perennial ponds to be recovered fully in three to seven years. The interest rate varies from 10-14% per annum depending on the loan amount. The recovery rate is low and varies between 15-20%. The bank issues notices to defaulters, organizes door-to-door campaigns, recovery camps and pressure tactics through influential people, but borrowers do not pay much attention to all that.

Process for Supply of Material Inputs

The banks are not involved in the supply of material inputs except placing an order with the Central Cooperative Stores identified by the FFDA effecting the payment on receipt of the delivery challans.

Timeliness and Scheduling of Loans, Inputs and Services

While the CBI pays it within seven days of receipt of the subsidy amount, UBI and MCB pay within 15 days to a maximum of 1.5 months, but the PCCB within three to six months.

Process for the Selection of Beneficiaries

The banks do not select beneficiaries but they do check their antecedents and also satisfy whether the minimum water level of 1 m would be retained during the summer or not. If the eligibility criteria for advancing loans are not fulfilled, the bank has the right to reject such cases and it informs the sponsors about its inability to provide the loan.

Process for Communicating

Communication is always through letters and Field Officers. The repayment schedule is indicated in the loan book given to farmers. For loan recovery, demand notices are issued through the post office or peon books. Other tactics such as persuasion through Panchayats, village headman or political leaders are also practiced but all this has had no results.

Marketing Support

In terms of the roles of banks in decision-making about harvesting and its impact on markets, the banks do not provide any marketing support.

Suggestions

The bank officials made the following suggestions:

Mass campaigns are required to educate farmers to avail of the loan facilities and refunding on time.

The Panchayat should not sponsor farmers as some personal involvement comes in the picture and pressure tactics are used. This encourages delay in payments and also the number of defaulters who consider the loan as a right and as their own money.

At present, loans are not provided to farmers whose ponds are seasonal or do not retain water round the year. Such farmers could be issued a Kisan Credit Card to enable them to draw small amounts of money when required and repay it soon thereafter.

It was felt that three years was a good enough period for the term loan.

Information on Purulia District

The district covers an area of 6,259 sq km and has a population of about 2.22 million, of which 90.56% is rural. The district comprises 20 blocks with 170 Gram Panchayats. The populations of Tapashil Jati and Tapashil Upjati are almost equal, being 430,513 and 427,766 respectively. There are 76 Fish Production Groups with a membership of 901 who utilize 43,126 ha of water area and 47 Primary Fishermen Cooperatives Societies with 4,100 members under the fold of a Central Fishermen's Cooperative Society.

The total water area in the district is 71,255 ha of which 50,078 ha are cultivable, 14, 299 ha semi-derelict and the rest derelict, besides 35 dams and reservoirs covering an area of 8,000 ha. The district's requirement for fish is of the order of 24,000 t/annum while it produces only 20,000 t. The rainfall ranges from 1,231-1,274 mm/yr and the temperature from 9⁰ to 44⁰ C. There is only one hatchery but 11 portable hatcheries are available with the Fish Production Groups.

The Assistant Director of Fisheries is the head of the district fisheries administration and is supported by these officers:

District Fisheries Officer (DFO): 3 (Training, Cooperatives and Administration/ Development)
 Fisheries Extension Officer (FEO): 24 (only 15 are presently in position)
 Chief Executive Officer (FFDA): 1 (vacant)

A number of schemes are implemented by the Department of which the major ones are:

1. Fish Farmers' Development Agency (FFDA) } These were discussed with
2. Fishermen Cooperatives } respective officers and are
3. Training } detailed below.
4. Social Fisheries: Fish Production Groups, comprising at least ten members and first established in the 1980s, who raise fish either on their own or in leased pond(s). Along with a copy of the resolution undertaken by the group on fish farming, they fill up a prescribed form and apply to the Panchayat Samiti through the Gram Pradhan. The FEO examines it and puts it up to the Sabhapati with his recommendation. If approved, a copy is sent to the ADF and the group given inputs such as fingerlings and lime. The project cost is Rs 5,000/ha. About 76 Fish Production Groups have been registered in Purulia District so far.
5. Tribal Sub-plan: Tribals are specifically supported through this scheme by way of providing them with six nets, 12 *hundis*, fingerlings and a house. The tribal people have to form groups of 10-15 people to avail of this scheme. This enables them to rear the fingerlings or else catch them from natural resources and sell them after meeting their own requirements.
6. Training for fisherwomen: A 15-day training course for fisherwomen in cast and drag net making at block level. They are also given about 1 kg of twine at the end of the training period for making their own nets.
7. Construction of houses for fishers: The model village scheme of the Government of India (GOI) with 100% contribution is also operated besides the state scheme where a 75% contribution comes from the GOI and 25% is paid by the state.
8. Construction of community halls: These are done for cooperative societies where they could organize their meetings and other functions.
9. Mini-kit distribution: This is meant for "very poor" farmers who are supplied 750 fingerlings, 15 kg of lime and 15 kg of superphosphate per beneficiary with a 5- 10-katha pond. Every year 200 units get this benefit.

Procedure for Formation and Registration of Fishermen Cooperatives Societies and Facilities Available to Them***Society Formation and Registration***

The cooperatives are formed by a group of people who are either culturing fish in their own or leased ponds. Based on the prescribed model by the Registrar of Cooperative Societies, the group has to conduct meetings, collect admission fees and monthly subscriptions towards purchase of shares, elect office bearers, prepare by-laws, and send the same to the Gram Panchayat Samiti through the Pradhan. The FEO at the block level is asked to examine the proposal and verify the various statements. Based on his recommendations, the application, which is submitted in triplicate, is forwarded to the ADF who, in turn, sends it to the Registrar of Cooperative Societies through the Director of Fisheries. On being registered, one of the copies with the Registration Number is sent to the society and the other to the ADF for record.

Provision of Facilities

As a rule, societies have to be given the first preference while leasing the ponds or *bundhs*. The irrigation *bundhs* and reservoirs are leased to them at nominal rates. Of the 12 societies fishing in the Kansabati reservoir (3,600 ha), each member has to pay Rs 250 only as annual royalty to the Department. Irrigation *bundhs* are given only on an annual lease that is renewable and the society has to stock the seed and harvest the crop.

The societies get considerable facilities from the Department of Fisheries under the grants-in-aid program. Houses, roads and tube-wells, in addition to nets, fish seed, lime and fertilizers that are required for fish culture, are provided but only once.

The National Cooperative Development Corporation (NCDC) also provides liberal funding based on the project cost that includes loan, subsidy, equipment and culture costs. Training under the NCDC-supported project is also provided.

If the society takes the FFDA project, the same rules are applicable as discussed above under the FFDA.