When policy makers begin hearing voices

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Demographic and Livelihoods Poverty Focus

One year ago, the Indian population stood at 1.027 billion, with 320 million Indian people (especially in rural areas) living below the Government of India's official poverty line. Five hundred million people in India live on less than US$1/day, representing one third of the world's poor people. India's successes in poverty alleviation will seriously affect international success with international development targets (such as halving absolute poverty by 2015). The Eastern Plateau region of India is characterised by poverty and inequality, land alienation and seasonal migration. The scheduled castes and tribes targeted by the project are amongst the poorest communities in India.

Poor women and men, recipients of the envisaged improved aquaculture service provision, typically belong to scheduled tribes or castes, and many lack the means to produce sufficient food throughout the year. Their livelihoods may be characterised as in Box 1.

Geographic Scope of the Project and Key Stakeholders

Service provision impacting on the lives of people such as have been characterised above is prescribed by national as well as state government policy. Therefore key stakeholders in a policy change process would be (potential) service provision recipients, policy actors at national, state and local levels, as well as non-government advisors on service provision to poor men and women (Table 1). The states where the project will consult with poor men and women in tribal areas are Jharkhand, Orissa and West Bengal, facilitated by GVT and DOF.

How did the current policy come about?

Freshwater fish culture has been an age-old tradition in India. Though originally confined to the eastern region of undivided India, presently covered by West Bengal, Assam, Bihar and Orissa, it gradually spread to Uttar Pradesh, eastern Madhya Pradesh and some parts of Tamil Nadu, where the seed of Indian major carps was transported from Calcutta and stocked in ponds, tanks and reservoirs in the thirties and forties. With independence, the state and national governments focused attention on food production as well as production of animal protein that included small and large livestock and also fish. Fish seed, though not available locally, was imported from Calcutta, and stocked in ponds and tanks under UNICEF's Applied Nutrition Programme. As survival of the spawn and fry imported from Calcutta was low, owing to crude indigenous practices of seed transport, research investigations were directed at improving the methods of seed transport and rearing of spawn to fry and fingerling size. The package of seed-rearing practices was developed by the mid-fifties and rates of survival increased in nursery and rearing ponds. As the Indian major carps (catla, rohu and mrigal) normally spawned only in flooded rivers and streams, the seed collected from such sources was poor in quality, being a

Table 1: Key Stakeholder Groups

(Potential) service provision recipients	Poor men, women and youth, including tribal as well as other marginalized and disadvantaged groups
National policy actors	Fisheries Development Commissioner, Planning Commission, Finance Ministry, Fisheries Division (Deputy Director General) of Indian Council of Agricultural Research (ICAR) and technical and learning centres (CIFE and CIFA).
State policy actors	Chief Ministers, Fisheries Ministers, Fisheries Secretaries, Department of Fisheries (Directors, Deputy Directors, Assistant Directors, District Fisheries Officers, Fisheries Extension Officers), Fish Farmers Development Agencies (FFDA), Directors of Gram Panchyats, Tribal Welfare and Department of Forests.
Local government	Zila Parishad and Gram Panchyat
Non-government advisors on service provision to poor men and women	Gramin Vikas Trust (GVT), donors (DFID, IFAD), international organisations

Livelihoods of poor people in rain-fed tribal areas of eastern India

They may farm about 0.4 ha of poor upland, where they might grow finger millet and about 400 kg of paddy (sufficient for 2.5 months consumption by 5-6 family members). (Wild) fish would be a popular but rare source of vital high-grade protein, polyunsaturated fats, calcium and iodine. Without food security, livelihoods depend on local labouring for better-endowed farmers, for a daily wage of 30 (women) to 50 (men) Indian Rupees (64-106 US cents/day). Agricultural daily labouring will be most commonly available to women and highly seasonal, resulting in high (socially divisive) seasonal migration rates of 40-50%. Men or families will tend to migrate after planting work is over in June, returning for possible harvest work in September-October; there is no Rabi cropping (November-April) in most of the dry Eastern Plateau. Seasonal (urban) labouring opportunities in Chhota Nagpur are commonly mediated through a Sardar who will recruit and sell the labour of 30-40 people. Piecework, perhaps at a brick-works, enables those labouring long days to earn 70 Indian Rupees (149 US cents/day). However, power relations are skewed against migrant labourers who may be inclined to report exploitation and underpayment.

mixture of several varieties including trash and predatory species. Urgent attention was therefore paid to developing the techniques of breeding them in confined waters.

With success in induced spawning of Indian carps, followed by Chinese silver carp and grass carp research programmes on increasing fish production were taken up. Polyculture of Indian major carps and Indian and Chinese carps resulted in achieving production levels of over 4,000 kg/ha/yr at the Central Inland Fisheries Research Substation, Cuttack, by the end of the sixties. In 1971, the Central Inland Fisheries Research Institute launched an All India Coordinated Research Project (AICRP) at 12 centres in the country from the northwest (Haryana) to the northeast (Assam), west (Gujarat and Maharashtra), east (Orissa) and southeast (Tamil Nadu). AICRP achieved high levels of production ranging from 3,000 to 10,000 kg/ha/year and the technology thus developed was popularly called Composite Fish Culture. Some of the states established a number of Demonstration Centres to transfer the technology to farmers and entrepreneurs. AICRP also helped in spawning the fish, especially the difficult-to-breed exotic carps, at all 12 centres and organised training programmes for state officers and farmers.

The technology of composite fish culture comprises pond preparation (removal of trash and predatory fishes), liming, nutrient management through periodic application of organic manures and inorganic fertilisers, supplementary feeding twice daily at 2-3% of the total fish biomass, monthly sampling for checks on health and growth to determine the quantum of feed, and finally harvesting at the end of one year. Though several variants have been developed now, the basic technology remains the same.

High production levels (average of 3,000 kg to over 6,000 kg/ha/yr) in farmers' ponds were also registered in various northern, central and southern districts of West Bengal and Orissa, when the Central Inland Fisheries Research Institute implemented an Operational Research Project called the Rural Aquaculture Project in collaboration with IDRC (Canada) from 1975-79. Based on the initial results achieved at the Central Inland Fisheries Research Station, Cuttack, and under the AICRP on Composite Fish Culture, the Government of India launched a centrally sponsored scheme called Fish Farmers Development Agency (FFDA) in 1973-74. The scheme was initiated with a view to increasing fish production from ponds and tanks all over the country and supporting poor and disadvantaged people, especially the scheduled castes and tribes. An FFDA was gradually established in each potential district and today there are 422 FFDAs in the country, of which 400 are functional. FFDA provides a package of technical, financial and extension support to fish farmers. It is a sort of autonomous organization under the administrative control of the District Collector, to help allotment of government land for pond construction or organize leases of government ponds to farmers, entrepreneurs and cooperatives. The central government initially shared 50% of expenses, with the states sharing the other half. However, since the beginning of the Ninth Plan, the share of the central government was increased to 75%.

"The FFDA has so far trained 634,000 fish farmers, with 934,000 beneficiaries who developed 531,000 ha of water area."

Besides revising the rates of subsidies, some new components were also added to the scheme and its scope enlarged. The FFDA has so far trained 634,000 fish farmers, with 934,000 beneficiaries who developed 531,000 ha of water area. The all-India average productivity from fish ponds under the FFDA scheme stood at 2,226 kg/ha/yr during 1999-2000. The performance of the seven states with large tribal populations under consideration for the present project is shown in Table 2.

So what might be a Policy Change Mechanism?

Recognising the Need for Change

An important prerequisite for transacting policy change is recognition of the need for change. That policy change (including poverty alleviation involving aquaculture) is an appropriate way forward has been highlighted by recent research and development in aquaculture in India (DFID NRSP Research, DFID EIRFP, 1996-2002), by the Government of India (Committee of High Level Experts, 2000-01), by the UK (Blair, 2002) and other governments, and more broadly by the international community (NACA/FAO Aquamillenium Conference, 1999).

The Government of India (GoI) recognises the need to develop the fisheries sector and in particular aquaculture. A government target for fisheries and aquaculture of 7.8 million metric tonnes (mmt) of fish production has been identified based on a per capita requirement of 12 kg. Current fish production is 5.9 mmt, and freshwater aquaculture contributes a third of this. Aquaculture has made tremendous progress in India during the last ten years, its production increasing by threefold. The current annual growth rate in aquaculture is 7.5%. While efforts are being made to achieve the planned target, it is a question as to how far poor and disadvantaged groups are able to profit from national and state government schemes.

From 1996-2001, the Institute of Aquaculture (IoA), University of Stirling, Scotland, co-ordinated a DFID-funded NRSP research project (R6759) to select, test and develop integrated aquaculture innovations relevant to poor groups and to their local needs and conditions in eastern India. The work was conducted in participation with farmers in farm-based trials integrated with on-station

Table 2: FFDAs in States with Large Tribal Populations

State	No. of FFDAs	Water area (ha)	Farmers trained	No. of beneficiaries	Average productivity (kg/ha/yr)	Production (MT)
Bihar	49	24,769	24,769	26,574	2,175	53,785
Gujarat	17	49,270	17,970	15,341	1,244	61,292
Madhya Pradesh	45	76,180	35,162	79,374	1,739	132,477
Maharashtra	29	22,547	13,383	60,030	1,749	39,435
Orissa	30	33,215	46,654	122,162	2,059	68,390
Rajasthan	15	3,164	9,405	2,710	2,053	6,496
West Bengal	18	107,712	196,820	354,695	2,950	317,750

research and contextual information collection. Project partners included the Eastern India Rain-fed Farming Project (EIRFP), now the Gramin Vikas Trust (GVT), and a supporting team of consultants recruited by the Centre for Development Studies, Swansea, the DOF and CIFA. Research and development work undertaken has clearly shown that there are certain constraints in the adoption of technologies by poor and disadvantaged people in rural sectors. It was felt that some policy changes are necessary to bring these groups into the mainstream and to take advantage of government services.

The need for policy change was also recognised by the GoI, which set up a Committee of High Level Experts in July 2000 that submitted its report in May 2001. The report indicates that there is much that needs to be done to popularise aquaculture and to bring the benefits to the doorsteps of disadvantaged groups who constitute an important and sizable component of the total population. These include, among others:

- To ensure the timely supply of fingerlings of desired species and of proper size.
- The procedure for financing loans should be simplified and time-bound.
- The lease period for Panchyat and village ponds should be increased.
- The need for coordination and adequate extension was recognised.

Time for a Change

Despite considerable economic growth and reduction in the numbers of people below the poverty line in India, the situation has not substantially improved for the poorest groups, including tribal populations, as the programmes meant to help poor people have not been effectively implemented. Huge sums have been invested in anti-poverty programmes involving subsidies. Far less effort has gone into empowering people to contribute to policy change processes, to give recipients of service provision a voice and to help them to realise their rights. However, for a range of key stakeholders, the time is right for change. For example:

Donors (especially DFID)

The development assistance that comes into India from abroad is still insignificant when compared to the national budget. Increasingly, outside agencies recognise that they can achieve strategic impact on poverty through influencing specific policies at the national level. As the British Prime Minister said in a speech to the Confederation of Indian Industry in Bangalore on 5 January 2002, "… donor nations are realising that help with a proper system of government or law is at least as crucial, sometimes more so, than cash."

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DFID in India is a partner in health and education, science and technology, and trade and investment. It proposes to work in close collaboration with local, state and national governments to develop policies that could be used to bring about a change in national policy. Aquaculture is an important component within the portfolio of livelihood activities that are considered valuable. DFID India welcomes the STREAM Initiative approach to contribute to policy change processes and to give recipients of service provision a voice.

Implementers (especially GVT)

A focus of GVT (formerly the Eastern India Rain-fed Farming Project) is now the sharing of processes and outcomes from their work (including six years of experience of working in aquaculture with poor marginalized people, mainly from tribal groups). Through extensive use of participatory approaches, and the development of social capital as an entry point (involving the formation of 193 groups, 25% of which were women's groups), more than 4,500 farmers who were unable to produce sufficient food throughout the year (the majority of whom belong to scheduled castes and tribes in Jharkhand, West Bengal and Orissa), had benefited from aquaculture. Aquaculture has been one of the most successful interventions of the project (which includes soil and water conservation, small-scale livestock and forestry, as well as special issues like participatory crop varietal selection). The use of seasonal water bodies for aquaculture was a new and successful undertaking researched in partnership with NRSP and ICAR. The opportunity for incorporating such learning into policy change processes is wholly welcomed by GVT.

Government of India

During discussions with the Fisheries Development Commissioner, it was evident that despite all efforts, the aquaculture development needs of scheduled castes, scheduled tribes and farmers in the north-eastern region, have not been adequately addressed. A Committee of High Level Experts (comprising the CIFE Director; Fisheries Development Commissioner; Directors (Fisheries) of Madhya Pradesh, Karnataka and Himachal Pradesh; FFDA representatives and others) recommended policy changes and the Tenth Five-year Plan is with the Fisheries Development Commissioner at the final drafting stage.

A Mechanism for Transacting Change

Based on DFID's research and development experience in Bihar (now Jharkhand), West Bengal and Orissa and some further work in the western (Madhya Pradesh, Gujarat and Rajasthan) and central (Maharashtra) regions covering tribal populations, the Fisheries Development Commissioner encouraged the STREAM Initiative, with funding from DFID NRSP, in collaboration with NACA, to play a role in recommending reforms under the FFDA scheme or even suggest a new "tribal" rain-fed farming component that could be launched in the next year. In order to exemplify such work on constraints and policy concerns, within the Tenth Five-year Plan (currently being finalised), a "Component Concept Note" was drafted and provided to the Commissioner in March 2002. This will provide opportunities for interactive workshops, meetings and consultations that might lead to recommendations for developing either a new scheme or a component of an ongoing scheme.

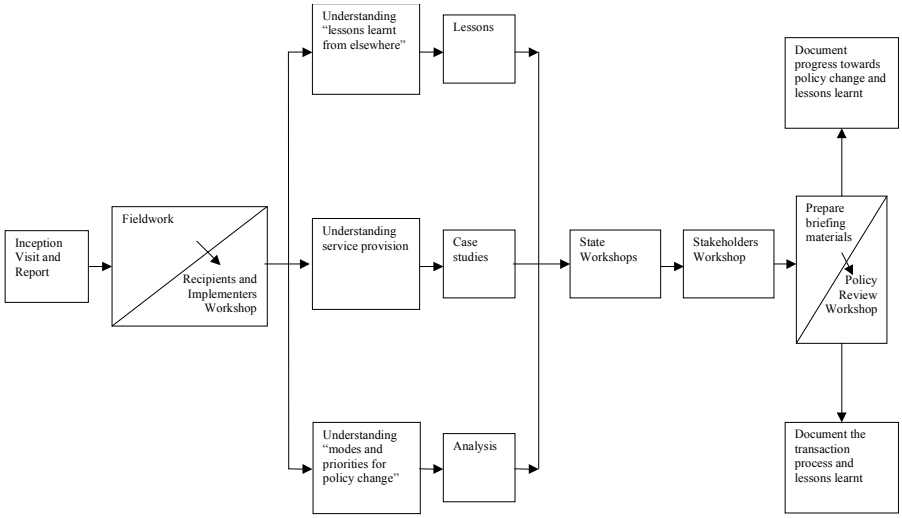
Fieldwork was carried out before hosting a Recipients and Implementers Workshop, with an aim to gain an initial understanding of people's experiences of aquaculture service provision. Community colleagues from the fieldwork villages were invited to participate in the workshop, including

Jankars from two GVT-supported villages, recipient farmers from a government-supported village, and farmers from a village with no support. As a result of the Inception Visit, and the fruitful, enthusiastic discussions with a range of colleagues and stakeholders at the subsequent workshop, the following plan has been agreed (Figure 1).

The "central" of the three parallel strands to follow this inception phase, 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 in Jharkand, Orissa and West Bengal.

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. *For more information contact Graham Haylor, email ghaylor@loxinfo.co.th*

Figure 1: STREAM plan for Investigating Improved Policy on Aquaculture Service Provision to Poor People



What's New on the Web

Launch of eNACA V2.0 www.enaca.org

The NACA information team has rebuilt the NACA homepage to make it a lot more useful to network participants. Our website now features a lot more 'dynamic' content and is updated at the end of each week, so there is always something new. We have completely changed the page to include:

- Regional aquaculture news headlines;
- Announcements on upcoming conferences, workshops and updates on network activities;
- Links to NACA programmes and major databases;
- An online library of network publications, all available for FREE download as PDF files;
- An email newsletter service;
- The average file size of our pages has been reduced by about 25% so you can open them faster.

In the interests of maximizing sharing of information, we have put all currently available network books on our publications page for FREE DOWNLOAD, as PDF files. Everything !! Totally free !!! This includes some very useful things like the Asia Diagnostic Guide to Aquatic Animal diseases and a low-resolution version of Aquaculture Asia (suitable for online viewing, but you will still have to subscribe if you want a printed hard copy, sorry). New NACA publications will continue to be added to this page as they are released - usually before the hard copies have been printed.

A particularly useful feature is our new email newsletter, which will be delivered once per month. If you would like regional aquaculture news headlines and announcements on network activities delivered to your computer, please subscribe. Its easy, just type your email address in the box on the homepage and press the 'submit' button. The first edition will come out at the end of July.

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New CIBA website launched www.icar.org.in/ciba/index.htm

The Central Institute of Brackishwater Aquaculture in Chennai, India, has also re-launched its website. This site contains a profile of the institute and research achievements, lists of available publications and extension materials, profiles of resident scientists and a training calendar. Also worth a mention, if you are trying to contact institutes in India, is the homepage of the Indian Council of Agricultural Research (ICAR), which contains links to most major institutions, www.icar.org.in.