

NATURAL RESOURCES SYSTEMS PROGRAMME
FINAL TECHNICAL REPORT¹

DFID Project Number

R8334

Project Title

Promoting the pro-poor policy lessons of R8100 with key policy actors in India

Project Leader

Graham Haylor

Organization

STREAM Initiative

NRSP Production System

High Potential

Date

September 2005

¹ This document is an output from a project funded by the UK Department for International Development (DFID) for the benefit of developing countries. The views expressed are not necessarily those of DFID.

Contents

1	EXECUTIVE SUMMARY	1
2	BACKGROUND	1
3	PROJECT PURPOSE	3
4	OUTPUTS.....	3
5	RESEARCH ACTIVITIES.....	9
6	ENVIRONMENTAL ASSESSMENT.....	11
7	CONTRIBUTION OF OUTPUTS	12
8	PUBLICATIONS AND OTHER COMMUNICATION MATERIALS.....	14
9	REFERENCES CITED IN THE REPORT, SECTIONS 1-7.....	16
10	PROJECT LOGFRAME	17
11	KEYWORDS.....	19

ANNEXES

ANNEX A: Scientific Annex

ANNEX B: Policy Briefs

Annex B1: Version 1.0 of the Building Consensus Policy Brief (English and multilingual versions)

Annex B2: Version 1.0 FAO TCP “Assistance in poverty alleviation through improved aquatic resources management in the Asia-Pacific” *Livelihoods Approaches* (English and multilingual versions)

ANNEX C: R8334 stories: Jabarrah, Kaipara and Kandhkelgaon stories (English, Bangla, Hindi and Oriya)

ANNEX D: OASIS: One-Stop Aqua-Shop Information Service (English, Bangla and Oriya)

ANNEX E: Better-Practice Guidelines

Annex E1: The Consensus Building Process (English and multilingual versions)

Annex E2: Farmer-authored Better-Practice Guidelines

Annex E3: Western Orissa Rural Livelihoods Project (WORLP) Better-Practice Guidelines

ANNEX F: One-stop Aqua Shop at FFDA Doranda Ranchi Promotional Poster

ANNEX G: Significant Change Stories

ANNEX H: R8334 Project Publications

Annex H1: Publication 1: Stakeholders Meeting, Ranchi, Jharkhand, 18-19 September 2003

Annex H2: Publication 2: State-level Communications Strategy Workshops, Kolkata, West Bengal 30-31 October 2003; Ranchi, Jharkhand, 3-4 November 2003; Bhubaneswar, Orissa, 6-7 November 2003.

Annex H3: Publication 3: Planning Meeting Workshop, Ranchi, 29-30 January 2004

Annex H4: Publication 4: West Bengal Visit, Kaipara, 25-28 February 2004

Annex H5: Publication 5: One-Stop Aqua Shop Planning Meeting, Purulia, West Bengal, 26 May 2004

Annex H6: Publication 6: Monitoring and Evaluation Workshop, Ranchi, Jharkhand 7-8 October 2004

Annex H7: Publication 7: Second Monitoring and Evaluation Workshop at the One-stop Aqua Shop in Kaipara, West Bengal 17-18 May 2005

Annex H8: Publication 8: Final Workshop Report, Bhubaneswar, Orissa 30-31 August 2005

ANNEX I: Final Project Inventory

Abbreviations and Acronyms

BPG	Better-Practice Guidelines
CBP	Consensus-Building Process
CIFA	Central Institute of Freshwater Aquaculture
CIFE	Central Institute for Fisheries Education
DANIDA	Danish International Development Agency
DDG	Deputy Director General
DFID	Department for International Development
DFID-AFGRP	Aquaculture and Fish Genetics Research Programme
DFID-NRSP	Natural Resources Systems Programme
DoF	Department of Fisheries
EIRFP	Eastern India Rain Fed Farming Project
FAO	Food and Agriculture Organization of the United Nations
FFDA	Fish Farmers Development Agency
GO	Government Organization
GOI	Government of India
GVT	Gramin Vikas Trust
ICAR	Indian Council for Agricultural Research
M&E	Monitoring and evaluation
NACA	Network of Aquaculture Centres in Asia-Pacific
NGO	Non-Governmental Organization
DFID-NRSP	Natural Resources Systems Programme
OAS	One-stop Aqua Shop
OASIS	One-stop Aqua Shop Information Service
OVI	Objectively Verifiable Indicator
OWDM	Orissa Watershed Development Mission
PWG	Project Working Group
R6579	Integrated Aquaculture in Eastern India
R7917	Self-Recruiting Species in Aquaculture, Their Role in Rural Livelihoods
R8100	Investigating Improved Policy on Aquaculture Service Provision to Poor People
R8334	Promoting the Pro-Poor Policy Lessons of R8100 with Key Policy Actors in India
R8363	Enhancing Development Impact of Process Tools Piloted in Eastern India
SCS	Significant Change Stories
SHG	Self-Help Group
STREAM	Support to Regional Aquatic Resources Management
SVA	Sahabhagi Vikas Abhiyan
TCP	Technical Co-operation Program (FAO)
WORLP	Western Orissa Rural Livelihoods Project

1 Executive Summary

The DFID-NRSP project R8334 “Promoting the Pro-Poor Policy Lessons of R8100 with Key Policy Actors in India” built upon a previous DFID-NRSP project R8100 “Investigating Improved Policy on Aquaculture Service Provision to Poor People. Working closely with a wide range of stakeholders, project R8100 had highlighted mechanisms for the delivery of improved rural aquaculture services at state and national levels in India. Prioritized recommendations of farmers and fishers and service providers were shared with policy-makers as live drama, film documentaries, reports, PowerPoint presentations and case studies. These communications media emphasized problems with processes (e.g., for pond leasing, extension, research and communications, marketing operations and planning from the grassroots level); people’s need for knowledge and financial products; efforts to increase the availability of natural capital for aquaculture; and awareness of government schemes and policies. In addition, they articulated a context of dependency, cashlessness and difficulties with the process of building social capital.

Lessons were documented about a process of “facilitated advocacy”, to give farmers and fishers a voice in policy-making and a “consensus-building process” (CBP) around change priorities within line agencies.

R8334 investigated how to follow up the sensitization achieved by R8100, how to promote and build capacity to transform policy recommendations into pro-poor service provision, and how to assess progress towards livelihood improvement.

The project worked with stakeholders to nurture and monitor change through communications and institutional capacity-building. There were a number of specific outcomes and impacts. The national-level Fisheries Commission in Delhi (Dr D P S Chauhan, Deputy Fisheries Commissioner) used the outputs of R8100 to help frame leasing recommendations to state governments, which were implemented by Jharkhand DoF (Ashish Kumar, Deputy Director Fisheries) and Orissa DoF (Dr S Sahu, Fisheries Director, Orissa). Two institutes of the Indian Council for Agricultural Research (ICAR), the Central Institute for Freshwater Aquaculture (CIFA) and the Central Institute for Fisheries Education (CIFE), launched policy-related mini-projects, initiated by DDG-ICAR Fisheries, which specified the use of a CBP in their designs.

Six of the recommendations of R8100 were implemented during the course of R8334. These included experiments in developing infrastructure for timely production of fingerlings at local level by the Government of Orissa in Nuapara district (1)²; a policy of providing leases to Self-Help Groups (SHG) and for the lease period to be increased to more than one year in Orissa (2); the development of “single-point under-one-roof service provision” pilots in Jharkhand, Orissa and West Bengal (7); changing the way which information is made available to farmers and fisher through nine One-stop Aqua Shops (OAS) and the launch of an information service (OASIS) (11); and simplified procedures for getting government schemes and bank loans (3, 13). Evidence of impacts from these changes on the lives of people who are poor emerged through monitoring via stories, including participatory monitoring through “significant change stories”. STREAM shared experiences from eastern India with eleven other countries, giving rise to OAS development in Vietnam (through DANIDA) and sharing of CBP for policy change in Pakistan (through FAO). New communications vehicles developed by the project were translated and shared throughout the region. Policy Briefs and Better-Practice Guidelines were also taken up by other projects and organizations.

2 Background

India is home to one-third of the poorest people on earth, with three hundred and twenty million people (out of 1.027 billion) living below the government’s official poverty line, many of these in rural areas. India’s successes in poverty alleviation, which is a high-order goal to which this project aims in a small way to contribute, will therefore influence strongly the success of International Development Targets (such as halving absolute poverty by 2015).

² The numbers in brackets represent those of the recommendations of R8100.

The Eastern Plateau region of India is characterized by poverty and inequality, land alienation and seasonal migration and is home to some of the poorest communities in India. The region also has the largest concentration of tribal populations in the world, who under the Indian Constitution are referred to as ‘scheduled tribes’ and sometimes known as *adivasis* (or ‘first settlers’). Others are designated as ‘scheduled castes’ and together these groups make up most of the poor and marginalized people in Indian society.

The scheduled castes and tribes of the Eastern Plateau are among the poorest communities in India, with many lacking the means to produce sufficient food throughout the year. Their livelihoods are characterized by small holdings (about 0.4 ha) of poor upland, where they commonly grow finger millet and about 400 kg of paddy (sufficient for 2.5 months of consumption by 5-6 family members). Wild fish are a popular but rare source of vital high-grade protein, polyunsaturated fats, calcium, Vitamin A and iron. Without food security, their 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 is 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 this tribal area known as 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 report exploitation and underpayment.

The recent DFID Eastern India Rainfed Farming Project (EIRFP) catalyzed large numbers of farmer associations known locally as Self-Help Groups (which formed around interests including aquaculture, soil and water conservation, small-scale livestock and forestry, as well as special issues like participatory crop-varietal selection). Aquaculture in seasonal water bodies proved to be one of the most successful interventions of EIRFP. More than 4,500 farm families, who were unable to produce sufficient food throughout the year (the majority of whom belong to scheduled castes and tribes in Jharkhand, Orissa and West Bengal), benefited from extensive use of participatory approaches, the formation of 193 aquaculture Self-help Groups (SHGs) (25% of which were associations of women) and the provision of information and support.

The use of seasonal water bodies for aquaculture was a new and successful undertaking researched by EIRFP farmer associations in partnership with the DFID-NRSP project R6759 “Integrated Aquaculture in Eastern India,” and the Indian Council for Agricultural Research (ICAR), Central Institute for Freshwater Aquaculture (CIFA). Previously, applications for support by farmers to the Indian government’s main development effort through aquaculture, the Fish Farmers Development Agency, for aquaculture in seasonal ponds were not supported by fisheries departments or the rural banking sector.

The research effort helped to highlight the value of these local resources to which farmers and their SHGs often had clearer access, compared to the multiply-used perennial water resources. The smaller size of seasonal water bodies required fewer inputs from resource poor farmers, and were suited to the production of lucrative and rapid-return income generation, including ‘fingerling’ production (for stocking larger water bodies).

One of the features of the success of the approach as a whole had been the role played by farmers in articulating their objectives and working together to achieve these. To scale up the approach, STREAM and DFID-NRSP now took an innovative approach. Through a follow-on project, they investigated opportunities for incorporating aquaculture farmers’ voices and learning in a broader arena, into policy change processes. Working again with stakeholders in eastern India, R8100, “Investigating improved policy on Aquaculture Service Provision to Poor People,” coordinated by the STREAM Initiative with farmers and fishers, the NGO Gramin Vikas Trust, CIFA and national and state line agencies, the project negotiated with the Fisheries Commission in Delhi a role in the planning and development of the 10th Five-Year Plan. That role was to support farmers and fishers to highlight to policy-makers the context of their lives and their proposals for policy change. Forty-three recommendations for change were highlighted by farmers and fishers and prioritized, through a

process managed by the project, by service providers in the government and NGO sector to a priority list of thirteen recommendations for change. These were shared with policy-makers in Delhi through live drama, film documentaries and reports at a policy review workshop. The R8100 project engaged hundreds of stakeholders and sensitized policy-makers to their objectives for change.

R8334 “Promoting the Pro-Poor Policy Lessons of R8100 with Key Policy Actors in India,” is therefore the third in a suite of DFID-NRSP projects concerning the role of aquaculture in the lives of poor people in eastern India. The project was commissioned by DFID-NRSP who saw an opportunity to contribute towards a better understanding of how to nurture the policy-relevant sensitization R8100 achieved by R8100 and create circumstances from which there would be a high probability that policy-level stakeholders would carry through with pro-poor policy formulation for aquaculture.

R8334 also aimed to internalize the policy process of R8100, at both state and national levels in India, especially to generate new knowledge about the development and promotion of mechanisms for the delivery of improved rural services (critical to the development of rural livelihoods of poor, marginalized people with complex and diverse livelihoods strategies). Priority was given to the three target eastern India states of Jharkhand, Orissa and West Bengal.

3 Project Purpose

The purpose of R8334 was to further develop and promote mechanisms for the delivery of improved rural aquaculture services at the state and national levels in the target eastern India states that were highlighted from previous DFID-NRSP projects (Jharkhand, Orissa and West Bengal). It was envisaged that by project end, stakeholders in at least two state-level institutions and some key national-level policy actors would use new knowledge generated by the project in ways that can benefit people who are poor, specifically:

- The Consensus Building Process (CBP) would be used in at least two target states and one apex national organization towards pro-poor policy formulation
- National- and state-level policy-related action would be making use of the findings of R8100
- At least two state institutions for service provision would begin to act on the policy recommendations for service improvement that the stakeholders of project R8100 identified
- Farmers in at least one state would recognize favourable changes regarding government service provision

In this way, the project aimed to contribute to the goal of developing and promoting efficient systems for providing rural services to poor people with emphasis on services in support of aquaculture that take account of the objectives, strengths and constraints of marginalized groups and their complex diverse livelihoods.

4 Outputs

Output 1: Building on the findings of R8100, key national- and state-level stakeholders brought to a level of engagement with, and sense of ownership of, the Consensus-Building Process (CBP) and its pro-poor features that could engender sustained pro-poor policy formulation, particularly as it relates to the use of water bodies for livelihood enterprises

R8334 found that repeated engagement with a wide range of stakeholders was a good approach. Constituting a Policy Working Group (PWG) was a troublesome concept for Delhi stakeholders, which they pointed out, would rightly be constituted by government not by a donor project. However, stakeholders from the Ministry of Animal Husbandry and Dairying, the Fisheries Commission and the Indian Council for Agricultural Research in Delhi, the Governments and Fisheries Departments of Jharkhand, Orissa and West Bengal, rural banks operating in eastern India, NGOs, federations of Self-Help Groups and farmers and fishers, engaged with the Consensus Building Process developed by R8100 through meetings and workshops. They warmly welcomed R8334 and there was an

agreement to work together towards promoting the CBP.

A communications vehicle was developed by the project in consultation with stakeholders to support engagement with the CBP. This is a short (two-page) document designed to be read quickly, with summary sections and concise information of key issues, as well as leads to more in-depth information sources on related topics. The first so-called **Policy Brief** (Annex B1) on the CBP itself was produced and tested in India. The structure of the PB genre has developed so that busy professionals (for example, in India these might be a District Collector, who takes a guiding role in development policy and implementation for a district) who can engage with them in only one, three or five minutes.

During 2005, ICAR developed and funded two projects using the CBP in their designs. The Central Institute for Fisheries Education (CIFE) in Mumbai (Dr Salim) replicated the CBP itself with communities and service providers in Maharashtra. The other, conducted by scientists in CIFA (Dr Dey and Dr Saha), followed up the CBP recommendations regarding “single-point under-one-roof” service provision to assess its implementation.

Consensus-building as part of promoting policy change requires carefully negotiated positioning to provide learning that assists in policy-making or changing processes. This required creation of trust and a familiarity with the project, building upon existing relationships. This nurturing process cannot happen without a commitment to longer-term engagement and it takes time to create an awareness of the policy environment and change recommendations and to formulate and pilot responses to them together.

Output Two: Potential for implementation of the pro-poor recommendations for service provision that R8100 identified further progressed through institutional capacity-building, including improved sharing of policy-related experiences and promotion of the policy recommendations in relevant government policy-related communication channels

Exposure visits raised the awareness of national- and state-level stakeholders of ways to sustainably achieve pro-poor changes. The STREAM story *Back to Jabarrah* (Annex C) has proved a useful mechanism for sharing understanding of issues around livelihoods change in a wide variety of geographic and social contexts.

Stakeholders of each target state developed **communication action plans** based on adoption of the principle of local service delivery through the provision of OASs (see Outputs 1 and 3).

At project workshops in three states, participants highlighted their communication shortcomings and discussed procedural reforms for improving communication. These were centred on areas of understanding drawn from R8100, building social capital, access to financial capital, streamlining service. Participants also recognized the potential role and opportunity presented by the newly-established STREAM India Communications Hub.

Emerging from these activities, state- and national-level policy ‘shapers’ **began to share a common vision** on how to further advance R8100’s pro-poor policy change recommendations into formal policy channels. By June 2005, a second Policy Brief entitled “Livelihoods Approaches” was also made available (Annex B1 & B2).

The Joint Secretary of the Department of Animal Husbandry and Dairying, Ministry of Agriculture, shared the “facilitated advocacy” process with Asia-Pacific fisheries officials at the United Nations Food and Agriculture Organization Fisheries Committee, Asia-Pacific Fishery Commission meeting in Chiang Mai, Thailand.

STREAM shared the policy change lessons at an inception workshop on the Development of Strategies for Enterprise Promotion and Sustainable Livelihood in the Fisheries Sector in Orissa.

Brokering advice and support to policy-makers and facilitating engagement with communities requires **trusting relationships** and familiarity with the policy change environment. In this case the 10th Five-Year Development Plan was the opportunity which led to engagement with the Ministry. With ministry commitment, it was possible to engage more easily with state-level actors, who were encouraged to do so by the Fisheries Commissioner in Delhi.

Nurturing is crucial to overcome inertia and resistance to change at different levels with the hierarchy of bureaucracies. The clarity of policy changes and momentum towards their implementation can be diminished by changes in key personnel. Workshops which supplement understanding of the origin of the change and underline its essence are an important part of nurturing. They are also a public platform for demonstrating shared commitment to changes which can empower change agents to act on government memos. As an uptake and promotion project, building awareness and capacity was undertaken through **workshops, exposure visits and training programs** using project funds, but also leveraging funds from other sources especially the DFID WORLP (e.g., for an OAS planning workshop with 70 stakeholders, training for aquaculture service provision “training of trainers” series, aquaculture for irrigation engineers workshop, aquaculture monitoring and evaluation workshop).

In 2005, the NACA-STREAM Initiative **launched a One-stop Aqua Shop Information Service (OASIS)** (Annex D) to supply communications materials, including Policy Briefs (see above) and other communications vehicles developed for sharing learning with service providers working directly with farmers and fishers who are poor. These include the genre known as **Better-Practice Guidelines** which are lively four-page documents with pictures, cartoons and simple text. These are published in English, Oriya, Bangla and Hindi. They have subsequently been translated and shared in ten other Asia-Pacific languages through DFID-NRSP project R8363 (Annex E1).

Wider dissemination of the Policy Brief and Better-Practice Guidelines concepts has occurred through sharing and developing the genre with other organizations. Additional Policy Briefs include one on “Livelihoods Approaches” produced by the FAO-funded Technical Cooperation Program Assistance in Poverty Alleviation through Improved Aquatic Resources Management in Asia-Pacific, one on “Self-recruiting Species in Aquaculture, Their Role in Rural Livelihoods” under DFID-NRSP R7917 coordinated by AFGRP at the University of Stirling. Additional draft BPGs have emerged as a mechanism for sharing knowledge from local farmers to a wider audience. So far these include one authored by Kuddus Ansari, the secretary of Kaipara OAS, with the support of the STREAM India Communications Hub Manager, entitled “The One-Stop Aqua Shop” – about how to set up and run an OAS (which has generated significant interest from other SHGs in West Bengal, including in Jabarrah) and one about “Buying Fish Seed” co-authored by Ras Bahari, a Jharkhand farmer and fish seed trader and the STREAM India Hub Manager. This includes a practical low-tech method to identify if the seed of Catla (a fish species highly prized by farmers) is included in consignments of India Major Carp seed (which are notoriously difficult to differentiate at this stage by conventional methods), which are traditionally marketed collectively (Annex E2). The DFID-funded Western Orissa Rural Livelihoods Project (WORLP) have adopted the BPG genre for their aquaculture communications strategy, developing a flexible project manual as 19 BPGs on rural aquaculture in a folder which displays the calendar of aquaculture activities throughout the year in Orissa (Annex E3). The DFID Chief Scientific Advisor, Sir Gordon Conway, who visited the project from 25-27 August 2005, was particularly interested to see links with other DFID-funded research projects featuring aquaculture. He promised that this would be reflected in the emerging DFID Science and Innovation Strategy that he is leading.

Output Three: State-level capacity to provide pro-poor services for livelihoods improved through stakeholders designing and pilot testing revised procedures and institutional arrangements for service delivery

This output aimed to nurture pro-poor service provision through action research (learning-by-doing) based on the prioritized policy change recommendations of R8100. During the course of the R8334 project, six of the recommendations of R8100 were implemented, these were as follows:

Recommendation 1 - Develop infrastructure for timely production of fingerlings at local level

The Government of Orissa, with support from the NGO SVA and the STREAM Initiative, undertook experiments with a modular approach to fry and fingerling production. The system involved plastic-reinforced fibreglass hatching and spawning tank designs by the CIFA “Plastics in Aquaculture” Project, at 1/10 of the normal hatchery development cost, associated with a network of SHGs with nursery ponds. Timely fingerling production is achieved through coordinated early spawning

synchronised with nursery pond preparation and rearing of seed at low density to fingerlings (see BPG on Fast Fingerling System). In addition, one community-based OAS in West Bengal acquired access to ponds for fingerling production and commenced a fingerling supply service, achieving timely supply to ponds in rural Purulia District. The modular approach to developing hatchery infrastructure and an associated network of nursery pond operators (mainly Self-Help Groups) has been adopted by the Government of Orissa, Orissa Watersheds Development Mission, as a development plan for improving timely production of fingerlings at local level in its five-year plan (2006-10). One small hatchery with a 3-m spawning tank and 3 x 2-m hatching tanks can service 100 SHGs with fish seed over its 30-day period of operation during the rainy season with a pay-back period (based on capital and operating costs) of two seasons. Each SHG (with on average 3 x 0.2-ha nursery ponds) can realize an operating profit of around \$1,000 over a two-month nursing period, 100 SHGs producing collectively enough fingerlings to stock around 2,000 ha of water area with a likely production capacity of around \$1 million of marketable fish at local rates.

Recommendation 2 - Ten year leases for ponds for SHGs

As a result of positive follow-up at national and state levels on the R8100 recommendation, the pond lease period was increased to up to five years in Jharkhand, Orissa and West Bengal. During September 2003, the Joint Secretary to the Government of India (Fisheries) recommended extending the length of lease periods for ponds. In November, the Commissioner-cum-Secretary for Fisheries and Animal Resources, Government of Orissa, confirmed that he had received the directive and would be implementing it. By February 2004, implementation was confirmed at the block administrative level in discussions with Block Development Officers, the Gram Panchyat Sapanches and the Fisheries Extension Officers. At the final review workshop, Jharkhand and West Bengal governments confirmed the change.

Recommendation 7 - Single-point under-one-roof service provision

During the life of the project, a total of nine OASs were established independently of project funding. Different OAS models emerged: an experiment in the reform of the Fish Farmers Development Agency (FFDA) in Ranchi, Jharkhand; developments by government and NGOs in Orissa; and community-based service provision through a federation of SHGs in West Bengal. The OAS has become a focus of improved service provision and is changing the way that information is being made available, which is what farmers and fishers originally requested as a R8100 service provision priority. The OAS formation in Kaipara, championed by Kuddus Ansari and the Federation of SHGs there, has helped create a sustained source of community pride, outlined in *The Kaipara Story* (Annex C), particularly following the rapid and unexpected withdrawal of support from the NGO GVT, as highlighted in SCSs (see Box 1 and Annex G). Rather than representing a culture of dependency, this perhaps reflects the great strides that remote communities can take with minimal, yet somehow essential nurturing.

Recommendation 11 - Change how information is made available to farmers

Linked with OAS development, STREAM launched new communication vehicles such as the two-page Policy Briefs and colourful four-page Better-Practice Guidelines, and set up a One-stop Aqua Shop Information Service (OASIS) based in Orissa to enable sharing of knowledge and to manage information provision logistics to OASs. SHGs reported appreciating BPGs as a resource in the community, often read out to SHG members by a literate president or secretary. The Jharkhand government, with project support, is piloting a village poster campaign to advertise OASs (Annex F).

Recommendations 3 and 13 - Encourage integrated aquaculture including simplified procedures for accessing government schemes and bank loans

Extension agencies and financial loan services have recognised the value of OASs as a focal contact point. They are beginning to use OASs for meeting with poor clients and potential poor borrowers and simplified procedures for accessing government schemes (3) and bank loans (13) through making these locally accessible. The Mallyabhum Gramin Bank in West Bengal has welcomed the launch of OAS to help to share information about opportunities to access their products.

Activities for which loans are given to SHGs	No of SHGs who have taken loans	No of SHGs who repay the loans	Repayment (%)
Agriculture	42	33	78.5%
Aquaculture	32	32	100%
Livestock	24	14	58.3%
Construction	6	3	50%

Data source: Mallabhum Gramin Bank, Purulia (2005)

Output four: GO and NGO stakeholder understanding of the quality of their performance in pro-poor service delivery and requirements for pro-poor services further improved through assessment of emerging trends in change in livelihood circumstances of the poor people targeted in this project

In conjunction with the STREAM Regional Office, the project developed a mechanism for monitoring and evaluation of expected outcomes and impacts through the use of indicators associated with a logical framework combined with a participatory mechanism for capturing unanticipated changes through the use of “significant change stories”. The system provides a framework for monitoring changes in activities and stakeholders on a quarterly basis and for capturing change in the behaviour of institutions (especially in service provision), defined in the system as *outcomes*, and in farmers and fishers’ lives, defined as *impacts* (www.streaminitiative.org/MonitoringandEvaluation.html).

Understanding of the quality of performance in pro-poor service delivery and requirements for pro-poor services has been partially derived from evidence of impacts on the lives of people who are poor that emerges through monitoring via stories (such as stories from Jabarra, Kaipara and Kandhkelgaon). There is evidence from the stories produced (Annex C) that people have responded to a changed policy environment in ways that have given rise to tangible livelihood benefits. These benefits have not been confined to project sites and villages but also include non-target locations. For instance, poor people in Kandhkelgaon Village, Bolangir District, Orissa (a non-target village), heard about the pond lease change and took action themselves on this (see *The Kandhkelgaon Story* in Annex C). This is also noted by the Fisheries Extension Officers and OAS Managers in Nuapara, who report that interest in taking ponds on lease has grown substantially because of the change in the length of the lease period.

Stories convey well complex livelihood changes, and they also fulfil another function. After listening to stories in this context for a number of years, we have come to believe that the importance of stories rests less on their being told, than on their being listened to. By listening we are acknowledging people’s experiences and affirming their sense of self-worth.

A particular impact of the suite of projects (R6759, R8100 and R8334) has been to reduce seasonal migration – a long standing, and much dislike coping strategy of poor people – through the alternative of fish nursing. During a monitoring field visit to Jabarra in 2004, villagers explained how they are improving the natural pond infrastructure that they have within the village with support from a Food-for-Work Program administered by the Panchayat Samiti, to nurse fish rather than having to migrate for work. Interestingly, Jabarra was one of the villages that inspired the awareness-raising video *The Pond of the Little Fishes* produced by R6759 on this very topic.

As well as fish, and an increased frequency of consumption reported within households, especially those of SHG members who now had access to fresh fish at reduced rates, and funds from their sale to others, impacts included more effective group functioning (through working – sometimes struggling together toward a shared objective), opportunities for empowerment especially articulated by women; they reported increased confidence in their interactions with men and even outside agencies including banks. Greater food and financial security brought freedom from debt, accrual of savings and access to credit, including commercial micro-credit and government support schemes, as well as other financial products including life assurance and high-interest savings.

R8334 was designed to promote the findings of the preceding project (R8100) in three target states in India, with uptake promotion links to relevant national target institutions. As the project proceeded, STREAM responded to opportunities to promote the findings internationally at various events. Papers presented attracted favourable comments and re-enforced the will of the Indian stakeholders to be active in uptake of the R8100 policy recommendations. In this way, uptake promotion in Domains outside of India supported uptake promotion domestically.

There is evidence of at least two ways by which intermediate stakeholders have internalized the project feedback.

Government of Orissa adopts R8334 M&E system

Towards the end of the R8334 project, the Orissa Watersheds Development Mission requested support regarding monitoring and evaluation of aquaculture development in the state. They had selected some participatory tools for use in the field but were lacking a framework to apply them within. The R8334 process for M&E was an appropriate complement for tools being piloted in western Orissa. By making a few small changes to the timing and application of the existing tools, a comprehensive system was able to be developed. This demonstrated a certain robustness of the system designed by R8334. The simplicity at the field level of the application of “significant change stories” being applied by R8334 was also adopted by the Orissa government in the monitoring of their five-year plan (2006-10).

OAS trial a bar-code system for tracking distribution of media

There are early indications that people are using the services and resources of the OAS, including OASIS. There were around 350 farmers and SHGs registered by the end of 2005, each provided with bar-coded membership cards and OAS managers are keeping records of which ‘members’ use what resources. To avoid time delays in data entry into computer databases and the likelihood of data-entry errors from transcribing written logbooks, point-of-service technology is being used to input information into an electronic database via bar-codes and bar-code scanners. The ongoing challenge is to effectively implement, monitor, evaluate and learn how knowledge-sharing might best be achieved.

‘Significant change’ has been assessed in at least one target state with a sample of at least 30% of the men and women exposed to the project’s pilot testing

The OAS in Kaipara Village has collected over 117 stories from fellow villagers which represent the different experiences of change that they have experienced. With over 30% of people who were involved in the OAS sharing their stories, a resource with which to better understand the impact of the OAS is emerging. Attached (Annex G) are 37 “significant change stories” that have been selected by Kuddus Ansari as representative of the varieties of change that have been recounted by the villagers of Kaipara.

The outputs of R8334 have been promoted during the course of the project through media (listed in section 8 below) as well as a series of local and regional planning events, seminars and conferences including:

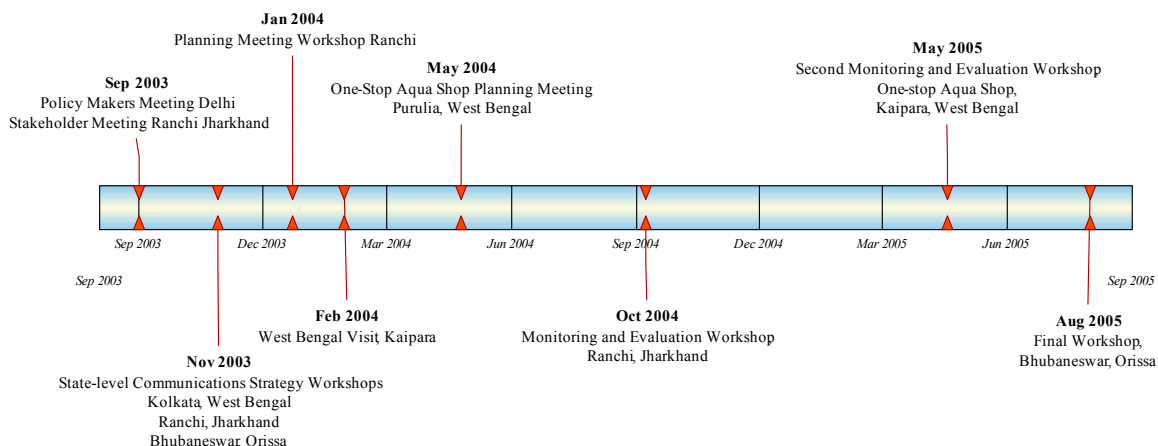
- Invited participation in the **Workshop on Indigenous Participation in Aquaculture – The Pacific Experience** that was held as a day-and-a-half session in the *Australasian Aquaculture 2004* conference at the Sydney Convention and Exhibition Centre, Darling Harbour, from 27-28 September 2004. Graham Haylor presented the work of R8334 with indigenous communities in eastern India.
- Dr S D Tripathi presented the paper “People and Policy Changes in Indian Fisheries” by Tripathi, Haylor and Savage at the **7th Asian Fisheries Forum** in Penang, Malaysia, from 30 November – 4 December 2004, with support from DFID-NRSP.
- Invited participation in the **Committee to discuss Orissa policy formulation issues on freshwater fisheries** in January 2005 at Cuttack DoF Offices. Dr S D Tripathi highlighted local infrastructure development for fingerling production, the One-stop Aqua Shop (OAS) service within Orissa, the provision of leases to Self-Help Groups (SHGs) and for the lease period to be increased to more than one year, changing the way in which information is made

available to farmers and fisher, and simplified procedures for accessing government schemes and bank loans.

- Invited participation in the **Consultation Workshop on Development of Strategies for Enterprise Promotion and Sustainable Livelihoods in Fisheries Sector in Orissa** held at Bhubaneswar from 29-30 August, 2005. Dr S D Tripathi highlighted R8334 approaches and outcomes.
- An invited contribution to a **meeting of senior government officials in Orissa** concerning the next five years of the Western Orissa Livelihoods Project (WORLP). Dr S D Tripathi and Graham Haylor made a presentation on 1 September 2005 to the Commissioner, Fisheries & Animal Resources Development Department, Government of Orissa, India, on the ongoing aquaculture activities derived from R6759, R8100 and R8334. The secretary plans to double aquaculture output within the state in relation to demand and government nutritional objectives, and expressed interest in expanding the One-stop Aqua Shop (OAS) service within Orissa, to provide those interested in aquaculture with information about government schemes, aquaculture techniques, sources of micro-credit and information about local suppliers of fingerlings and other inputs.
- An invited presentation to the **seminar of the Department of Fisheries**, Government of Chhattisgarh State, India, in November 2005 entitled “The Heartland of Aquaculture.” highlighted local infrastructure development for fingerling production, the One-stop Aqua Shop (OAS) service within Orissa, the provision of leases to Self-Help Groups (SHGs) and for the lease period to be increased to more than one year, changing the way in which information is made available to farmers and fisher, and simplified procedures for accessing government schemes and bank loans.
- The display, discussion and distribution of project media by Paul Bulcock and Bhawani Panda at the **7th Indian Fisheries Forum** held at the University of Veterinary and Agricultural Sciences, Bangalore, Karnataka, from 8-12 November 2005, organized by the Asian Fisheries Society India branch with the event attended by over 600 delegates from across India and overseas, with support from DFID-NRSP.

5 Research Activities

The following timeline summarises the research activities:



Initial meetings took place in Delhi and Ranchi (Jharkhand State) in September 2003 attended by stakeholders from the Ministry of Animal Husbandry and Dairying, the Fisheries Commission and the Indian Council for Agricultural Research in Delhi, the Governments and Fisheries Departments of Jharkhand, Orissa and West Bengal, rural banks operating in eastern India, NGOs, federations of Self-Help Groups and farmers and fishers. The report is available at www.streaminitiative.org/Library/pdf/pdf-india/StakeholdersMeeting.pdf (Annex H1)

Following the Stakeholders Meeting, an exposure visit was organized in conjunction with GVT to the village of Jabarrah, West Bengal, to raise awareness of pro-poor service provision and the experiences of SHG formation in aquaculture. The experiences were written up as a story which is available at www.streaminitiative.org/Library/pdf/pdf-india/jabarrah.pdf (Annex C).

A design for Policy Briefs was developed and shared by STREAM and the first number entitled “Building Consensus” is available to view in twelve languages at www.streaminitiative.org/Library/PolicyBrief/index.html. (Annex B1). It was tested in India and additionally in consultation with communications specialists from eleven other Asia-Pacific countries. It draws on experiences of farmers, fishers, local, district, state and national government and non-governmental stakeholders supported by the UK Government DFID Natural Resources Systems Program project R8100 Investigating Improved Policy on Aquaculture Service Provision to Poor People, which ran from March 2002 to April 2003, to identify, test and promote mechanisms for the delivery of improved rural services critical to the development of rural livelihoods, with emphasis on services in support of aquaculture. Policy Briefs are designed to be read quickly, to highlight key issues and to lead the way to further information sources on a topic. They are to enable people, institutions and policy-makers to use new tools and mechanisms which support aquatic resources management in ways that benefit the livelihoods of people who are poor.

The project met with the DDG of ICAR and ICAR institute directors to discuss ICAR-funded mini research projects. Following the selection of scientist recipients by ICAR, there was a period of back-stopping by the project of the work being undertaken. Two proposals were developed and funded by ICAR, specifying the CBP in their designs. The first of these focused on understanding and developing the concept of the One-stop Aqua Shop, working with the OAS developed by Jharkhand Fisheries Department in Ranchi and the OAS developed by the federation of Self-Help Groups engaged with aquaculture in Kaipara in rural West Bengal. It was conducted by scientists in CIFA in Bhubaneswar (Dr Dey and Dr Saha). A small travel budget was provided through the STREAM India Communications Hub to the scientists, who lack a mechanism for funding travel to rural areas. This is a serious institutional constraint to closer engagement in communities by ICAR research staff. Even with this constraint removed, the CIFA scientists failed to fulfil their planned fieldwork, citing their desire not to travel away from families. The second project by the ICAR Central Institute for Fisheries Education (CIFE) in Mumbai (Dr Salim) was completed and successfully replicated the CBP itself with communities (sharing their change aspirations for service provision and policy) and with service providers in Maharashtra State. The mini projects will be reported within the ICAR research system.

State-level Communications Strategy Workshops were held in Kolkata from 30-31 October 2003, Ranchi from 3-4 November 2003 and Bhubaneswar from 6-7 November 2003 www.streaminitiative.org/Library/pdf/pdf-india/StateLevel.pdf. (Annex H2). Communications action plans were developed in facilitated workshops with strong engagement from stakeholders within government and non-governmental organizations involved with ‘extension’.

Multiple stakeholders were again invited to a Planning Meeting that was hosted in Ranchi by the NGO Gramin Vikas Trust from 29-30 January 2004. A workshop report is available at www.streaminitiative.org/Library/pdf/pdfindia/PlanningMeetingReport.pdf (Annex H3). Participants considered how to plan and implement pilot testing of the revised procedures and institutional arrangements for improved service delivery highlighted by R8100. A key topic was the concept and management of proposed One-stop Aqua Shops. After receiving notice of the meeting, the secretary of a federation of SHGs in Kaipara, West Bengal, called a preliminary meeting of SHGs to discuss the concept of the federation hosting its own OAS. After agreement among the SHGs, this proposition was then shared at the Planning Meeting.

In February 2004, following the recommendation for OAS formation from the communications and planning meeting, STREAM and DoF Jharkhand visited representatives of SHGs in the village of Kaipara, West Bengal, to help them to plan the pilot testing of an OAS. The report is available at www.streaminitiative.org/Library/pdf/pdf-india/04R8334WestBengal.pdf (Annex H4).

An OAS Planning Meeting was then convened in Purulia, near Kaipara, in May 2004 to help to

consolidate the relationship between farmers in Kaipara and a range of potential service providers, including the DoF, banks, insurance companies, NGOs and fish farmers within the OAS. A report is available, www.streaminitiative.org/Library/pdf/pdfindia/05R8334OASPlanningMeeting.pdf (Annex H5). Following this, the farmers of Kaipara cluster of West Bengal went on to establish an OAS with the financial backing of 20 SHGs engaged with aquaculture from a federation of more than 70 SHGs.

To design, develop and pilot with stakeholders a system for understanding the quality of performance of service delivery, the project developed a mechanism for monitoring and evaluation (M&E) drawing on a system being designed by STREAM using logframe OVIs and the collection of “significant change stories” (SCS). The concept was introduced at an initial Monitoring and Evaluation Workshop held in Ranchi, Jharkhand, from 7-8 October 2004. A report is available at www.streaminitiative.org/Library/pdf/pdf-india/00R8334M&EWorkshop.pdf (Annex H6). The participants had two exposure visits to emerging OASs in Ranchi and Kaipara. Following the visits, *The Kaipara Story* was written, providing a closer look at the benefits of working together, the evolution of a federation of aquaculture Self-Help Groups and a One-stop Aqua Shop in rural West Bengal.

A Second Monitoring and Evaluation Workshop was held at the Kaipara OAS from 17-18 May 2005, a report of which is available at www.streaminitiative.org/Library/pdf/pdfindia/SecondM_EWorkshop.pdf (Annex H7), where local community members offered perspectives on the impact of project activities.

A Final Project Workshop was co-hosted by CIFA near Bhubaneswar, Orissa, from 30-31 August 2005 and attended by all stakeholders. A report is available at www.streaminitiative.org/Library/pdf/pdf-india/FinalWorkshop.pdf. (Annex H8).

The project media were displayed, discussed and distributed by Paul Bulcock and Bhawani Panda at the 7th Indian Fisheries Forum held at the University of Veterinary and Agricultural Sciences, Bangalore, Karnataka, from 8-12 November 2005, and organized by the Asian Fisheries Society India branch, with the event attended by over 600 delegates from across India and overseas, with support from DFID-NRSP.

6 Environmental assessment

6.1 What significant environmental impacts resulted from the research activities (both positive and negative)?

R8334 is essentially an uptake promotion project nurturing the development of pro-poor policy and rural services for sustainable aquaculture development. As such, this offers the potential to minimize significant negative environmental impacts and provides responses to demands for improved service provision that are environmentally sustainable along with mechanisms for continued dialogue with poorer stakeholders that will include local environmental issues.

The extension of leases on water bodies from one year to up to five years has resulted in farmers and fishers who take leases being able to invest in aquaculture without fear of losing to subsequent leaseholders the benefits from longer-term planning of stocking and harvesting, therefore encouraging more sustainable approaches to aquatic resources management. Meanwhile the adoption of the OAS provides a local focal point of information and service provision which could incorporate environmental aspects of management.

6.2 What will be the potentially significant environmental impacts (both positive and negative) of widespread dissemination and application of research findings?

The widespread dissemination of R8334 findings in the form of Policy Briefs and Better-Practice Guidelines, and the approaches for improved service provision adopted, could facilitate greater dialogue and the inclusion of a range of stakeholders in the development of sustainable aquatic resources management practices.

6.3 Has there been evidence during the project’s life of what is described in Section 6.2 and how were these impacts detected and monitored?

The Kandhkelgaon Story at www.streaminitiative.org/Library/pdf/pdfindia/TheKandhkelgaon-Story.pdf (Annex C) reflects the impact that the leasing policy change has had on the decisions being taken by SHGs who might take up aquaculture.

6.4 What follow up action, if any, is recommended?

It is recommended that Policy Briefs and Better-Practice Guidelines are developed to describe environmental issues in ways that are meaningful to stakeholders and shared through a growing chain of One-stop Aqua Shops and that their uptake and impact is measured to determine if the assertions in 6.1 and 6.2 might hold true.

7 Contribution of Outputs

7.1 NRSP Purpose and Production System Output

The NRSP Purpose (and the Goal of this project) is for strategies to be developed and promoted to provide specific groups of poor people with better access to knowledge that can enhance their decisions on management of natural capital. The Production System Output that this project specifically addresses is the promotion and development of mechanisms for the delivery of improved rural services. The following table characterizes some of the livelihood benefits that are beginning to accrue to farmers engaged in rural aquaculture in the context of poverty alleviation.

	Key Benefits	Indicators
Vulnerability reduced	Migration reduced, local labour opportunities created High opportunity cost for aquaculture labour	Migration rates substantially reduced (40-50% down to 15-20%, in some cases irradiated), less exploitation of migrant labour
	Food security improved, increased ability to secure entitlement to high-grade protein, polyunsaturated fats, calcium and iodine	Increased local availability of fresh fish (at subsidized rates for farmer association members)
Capital assets built	Farmer association formation (building social capital as an entry-point for development)	Many self-selecting, self-sustaining groups conducting aquaculture
	Building farmer association funds, and supporting development of these as sources of micro-credit (building financial capital availability)	Lower interest credit available (2-5% per month instead of 10% per month from moneylenders), positive experiences of rural banking sector provide comfort to managers extending credit for rural aquaculture
	Developing new livelihood skills (appropriate training, building human capital)	<i>Jankars</i> (local specialists) develop skills and experience through specialist training which they share among association members
	Improved resource use (natural capital assets developed) Mini-dam development (building physical capital)	Seasonal water bodies now utilized for aquaculture stages New water bodies provide aquaculture opportunities
Policies improved	Farmer associations as recipients of services are beginning to play a role in defining the services they need	Diverse choice in the aquaculture system they employ, control over the supply of inputs, timing of harvest, nature of credit and repayment schedules
Livelihoods improved	Appropriate livelihood opportunities identified	Sustained uptake of new opportunities Increased use of under-utilized resources
	Opportunities to use them provided	Opportunities maintained and developed without continued external support

(For evidence, see reports of: DFID EIRFP, DFID WORLP, Gramin Vikas Trust, Sahbhagi Vikas Abhiyan, Mallyabhum Gramin Bank, SCSs from farmers and fishers and R6759, R8100 and R8334)

The project has contributed, by nurturing the policy-relevant sensitization achieved through a previous DFID-NRSP project (R8100), to improved rural aquaculture services at state and national levels for people of scheduled castes and tribes of the Eastern Plateau of India, who live within a context of dependency, cashlessness and difficulties with the process of building social capital. Within the life of the project, cost-efficient delivery systems for provision of better access to

knowledge and services for rural aquaculture in eastern India have been established. This is critically assessed against OVIs in Appendix II of Annex A.

7.2 Impact of outputs

The project has built capacity for policy formulation that favours pro-poor service provision, and promoted the process especially for integrated aquaculture by facilitating stakeholders to work together, through the development and sharing of briefing media targeting policy-makers and by nurturing policy-related indigenous research by national fisheries institutions.

The project has contributed to the transformation into practice of six of the recommendations for policy change and improved service provision identified by R8100 across eastern India where *adivasi* people are suffering problems with processes (e.g., for pond leasing, extension, research and communications, marketing operations and planning from the grassroots level); a need for knowledge and financial products; and for greater awareness of government schemes and policies. These have resulted in outcomes in service provision and impacts on people's lives that have been captured by a project monitoring and evaluation system which has itself been adopted by the government of Orissa. Detailed evidence of the project's impact is collected against the OVIs in Appendix II, Annex A.

7.3 Uptake Promotion

The short-term uptake from this project has been substantial across eastern India, as reported. There are significant prospects for further uptake promotion of the learning in India due to its incorporation into medium-term plans of the Governments of Jharkhand and Orissa as well as NGO plans (especially SVA) and the adoption of monitoring and evaluation procedures by government institutions. The Government of Jharkhand, Department of Fisheries, and the Government of Orissa (GoO), Orissa Watersheds Development Mission (OWDM), have already incorporated all of the key findings that emerged from R8334 into their current policy and five-year plan respectively. The GoO OWDM, which receives DFID development support, is highly visible to Government of India policy processes and provides a promotion pathway for the incorporation of aquaculture components into the existing *watersheds approach* to development being implemented nationwide in India. In the long-term, the prospects for influencing this fundamental indigenous development approach in ways demanded by farmers and fishers, and prioritized by service providers, are excellent. Continued uptake promotion of this mechanism for the delivery of improved rural services will help to develop and promote strategies to provide specific groups of poor people with better access to knowledge that can enhance their decisions on management of natural capital.

Broader uptake promotion outside of eastern India is supported by ICAR research, especially in Maharashtra State. Uptake promotion in the Asia-Pacific region is being facilitated by the regional STREAM Initiative. Early uptake of the CBP in Pakistan and the OAS approach in Vietnam, within the life of this project, augers well for widespread uptake and impact. Further support to learning and communications such as through STREAM Communications Hubs and expansion of OASIS in India and regionally would be likely to provide cost-effective promotion uptake. Exposure by STREAM – piloting with donor support – visibility to national government and an existing development framework into which it could be incorporated (as is the case in Vietnam) provides a highly feasible promotion pathway.

During the implementation of R8334 a further DFID-NRSP uptake promotion project R8363, "Enhancing Development Impact of Process Tools Piloted in Eastern India," began. R8334 and R8363 shared common areas such as the production of a Policy Brief on the CBP and the production of Better-Practice Guidelines (BPGs), but R8363 shared the Indian experiences widely in Asia-Pacific, producing and sharing briefing documents and guidance in fourteen languages.

Professionally-facilitated internet-based meetings hosted by the STREAM Initiative, shared the Policy Brief with Communications Specialists from ten other Asia-Pacific countries (Cambodia, China [Yunnan], Indonesia, Lao PDR, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka and Vietnam). Others have subsequently been developed on other topics (Annex B2).

About 1,130 hard copies of the Policy Brief have been shared at state and national levels and through STREAM Communications Hubs in the ten countries, through One-stop Aqua Shops in eastern India, at the Indian Fisheries Forum (Bangalore 2005), and 323 copies have so far been downloaded from

the STREAM website as PDF files.

The sharing of “facilitated advocacy” as a mechanism to give farmers and fishers a voice in policy-making processes and the “consensus-building process” (CBP), to help build consensus within line agencies around change priorities, has subsequently taken place outside of India during 2005. Through the STREAM Initiative, the Fisheries Commissioner in Islamabad, Pakistan, came to know of the approach of R8100 and with the support of the FAO-funded Support to Fisheries Sector Policy and Strategy Formulation TCP/PAK/3005 (A) project and the STREAM Initiative **the process was implemented in the development of a “National Policy Framework and Strategy for Fisheries and Aquaculture Development in Pakistan”** with people being given a voice in the policy development process in Punjab with early trials in Gujranwala District and Multan District, Sindh in Karachi and Thatta, Balochistan in Gwader and NaSeerabad and North West Frontier Province in Swat and Peshawar.

8 Publications and other communication materials

8.1 Books and book chapters

8.2 Journal articles

8.2.1 Peer reviewed and published

Haylor, G, Savage, W and Tripathi, S.D. 2004 . *People and Policy Change in Indian Fisheries, Fishing Chimes, Volume 25. No. 1.* pp 66-68

Nayak, B and Mukherjee, R, Savage, W. (ed) 2003. *Lessons learned for Fulwar Toli from an exposure visit to Jabarrah.* STREAM Journal, Volume 2 Number 4. ISSN 1685-4012. (6-8)

Parida, G.B, Savage, W. (ed) 2003. *Livelihood intervention by fish farmers' development agency-A success story from Mayurbhanj, Orissa.* STREAM Journal, Volume 2 Number 4. ISSN 1685-4012.. (8-10)

Prasad, A, Singh, V, Sahay, B and Dutta, G, Savage, W. (ed) 2003. *An experience with group formation in Jabarrah, West Bengal* STREAM Journal, Volume 2 Number 4. ISSN 1685-4012. (2-4)

Sahay, B, Savage, W. (ed) 2003. *Understanding of assets-based livelihoods through participatory rural appraisal to eliminate hunger.* STREAM Journal, Volume 2 Number 4. ISSN 1685-4012. (10-12)

Sahay, B, Savage, W. (ed) 2003. *Poverty ranking tools in PRA-experiences of EIRFP in addressing vulnerability* STREAM Journal, Volume 2 Number 4. ISSN 1685-4012. (12-14)

Tripathi, S.D, Haylor, G and Savage, W. 2005. *People and Policy Change in Indian Fisheries.*, Fishing Chimes, Volume 25. No. 1. (66-68)

Tripathi, S.D, Haylor, G, Savage, W, Gangwar, J, Sing, V, Dutta, G and Pathak, P, Savage, W. (ed). 2003. *Aquaculture Self-Help Groups in Rural West Bengal* STREAM Journal, Volume 2 Number 4. ISSN 1685-4012. (4-6)

8.2.2 Pending publication (in press)

8.2.3 Drafted

8.3 Institutional Report Series

Haylor, G, Tripathi, S.D, Savage, W, Ansari, K, Dutta G and Yadba, S.A. 2005. *Empowerment is a laudable term - Here's an example of what it can look like, DFID-NRSP Annual Report 2004-2005 Part I-Success Stories.* DFID-NRSP. (SS-i-SS-iii)

Haylor, G, Savage, W and Tripathi, S.D. 2004. *Responding to the Voices of the Poor - pro-poor policy change for aquaculture in eastern India. DFID-NRSP Annual Report 2003-2004 Part I-Success Stories.* . DFID-NRSP. (SS-xi-SS-xii)

Haylor, G, Tripathi, S D, Satpathy, B K and Behera, D. 2005. *The Kandhkelgaon Story (Bengali, English, Oriya).* STREAM. 5pp.

Haylor, G, Tripathi, S.D, Savage, W, Ansari, K, Dutta, G and Yadav, S L. 2004. *The Kaipara Story (Bengali, English, Hindi and Oriya).* STREAM. 8pp.

Haylor, G, Tripathi, S.D, Savage, W, Gangwar, S, Sing, V, Dutta, G and Pathak, P K. 2003. *Jabarrah -- Beginning of New Era (Bengali, English and Hindi).* GVT 7pp.

Haylor, G. 2003. *Investigating Improved Policy on Aquaculture, Rural Aquaculture Vol. 5 No. 2.* GVT (6-7)

Tripathi, S D, Haylor, G, Savage, W, Gangwar, J S, Singh, V, Dutta, G and Pathak, P K. 2003. *Back to Jabarrah (Bengali, English Hindi and Oriya).* STREAM. 7pp.

8.4 Symposium, conference and workshop papers and posters

Bulcock, P and Panda, B. 2005. *Display, discussion and distribution of project media* 7th Indian Fisheries Forum, University of Veterinary and Agricultural Sciences, Bangalore, Karnataka, India. November 8th to 12th 2005 Asian Fisheries Forum.

Haylor, G. 2004. *Adopting a STREAM approach to inland fisheries management: Participatory approaches in reservoir fisheries management: Issues, challenges and policy*", October 4-6th 2004 at the Culture Club Resort, Dambulla, Sri Lanka. NAQDA. 10pp.

Tripathi, S.D, Haylor, G, Savage, W, Gangwar, J S, Singh, V, Dutta, G and Pathak, P K. 2004. *Back to Jabarrah* . Session 1: Best practice for establishing sustainable aquaculture ventures in indigenous communities of the ‘Indigenous participation in aquaculture: the Pacific experience,’ Australasian Aquaculture 2004 conference, Sydney Convention and Exhibition Centre, Darling Harbour, on 27-28 September 2004 ACIAR. 7pp.

Tripathi, SD. 2005. *Chhattisgarh-The Heartland of Aquaculture:* Department of Fisheries seminar for the Government of Chhattisgarh State, India November 2005 7pp.

Tripathi, S.D. 2005. *Consultation Workshop on Development of Strategies for Enterprise Promotion and Sustainable Livelihoods in Fisheries Sector in Orissa* 6pp .

Tripathi, S.D. 2004. *People and Policy Changes in Indian Fisheries* 7th Asian Fisheries Forum, Penang, Malaysia 30 November- 4 December Asian Fisheries Society.

8.5 Newsletter articles

Haylor, G. (ed) 2005. *STREAM Update Issue 11 June 2005.* STREAM 4pp.

Haylor, G. (ed) 2004. *STREAM Update Issue 10 December 2004.* STREAM 4pp.

Haylor, G. (ed) 2004. *STREAM Update Issue 9 September 2004.* STREAM 4pp.

Haylor, G. (ed) 2004. *STREAM Update Issue 8 June 2004.* STREAM 4pp.

Haylor, G. (ed) 2004. *STREAM Update Issue 7 March 2004.* STREAM 4pp.

Haylor, G. (ed) 2003. *STREAM Update Issue 6 November 2003.* STREAM 4pp.

Haylor, G. and Bulcock, P. 2004. *OASIS: The One-Stop Aqua-Shop Information Service, NACA Newsletter August 2004 (Bengali, English, Oriya).* NACA 4pp.

8.6 Academic theses

8.7 Extension leaflets, brochures, policy briefs and posters

Kumar, A. 2005. *One-stop Aqua Shop at FFDA Doranda Ranchi Promotional Poster (English and Bengali)* .

Haylor, G. (ed) 2005. *What are Policy Briefs (Bahasa, Bengali, English, Hindi, Ilonggo, Khmer, Myanmar, Nepali, Oriya, Sinhala, Urdu, and Vietnamese)* . STREAM. 1pp.

Haylor, G. (ed) 2005. *Building Consensus (Bahasa, Bengali, English, Hindi, Ilonggo, Khmer, Myanmar, Nepali, Oriya, Sinhala, Urdu, and Vietnamese).* STREAM 2pp

Haylor, G. (ed) 2005. *Livelihoods Approaches (Bahasa, Bengali, English, Hindi, Ilonggo, Khmer, Myanmar, Nepali, Oriya, Sinhala, Urdu, and Vietnamese).* STREAM 2pp

8.8 Manuals and guidelines

Copley, K, Haylor, G and Savage, W. (eds) 2005. *Consensus-Building Proces Version 1.0 (Bahasa, Bengali, English, Hindi, Ilonggo, Khmer, Myanmar, Nepali, Oriya, Sinhala, Urdu, Vietnamese).* STREAM 4pp.

Ansari, K and Mukherjee, R. 2005. *One-stop Aqua Shop.* STREAM 4pp.

Bahari, R and Mukherjee, R. 2005. *Buying Fish Seed* . STREAM 4pp.

Copley, K, Haylor, G, Savage, W and Tripathi, S.D. (eds) 2005. *What is Fish Culture?.* WORLP. 4pp.

Copley, K, Haylor, G, Savage, W and Tripathi, S.D. (eds) 2005. *Pond Construction: Selection of Good Places for Ponds.* WORLP. 4pp.

Copley, K, Haylor, G, Savage, W and Tripathi, S.D. (eds) 2005. *Pond Construction: Design and Layout of Ponds.* WORLP. 4pp.

Copley, K, Haylor, G, Savage, W and Tripathi, S.D. (eds) 2005. *Broodstock Collection, Transport and Maintenance (English and Oriya).* WORLP. 4pp.

Copley, K, Haylor, G, Savage, W and Tripathi, S.D. (eds) 2005. *Spawn Production in Hapas.* WORLP. 4pp.

Copley, K, Haylor, G, Savage, W and Tripathi, S.D. (eds) 2005. *Spawn Production in Hatcheries (English and Oriya)* WORLP. 4pp.

Copley, K, Haylor, G, Savage, W and Tripathi, S.D. (eds) 2005. *Spawn Production of Common Carp. (English and Oriya).* WORLP. 4pp

Copley, K, Haylor, G, Savage, W and Tripathi, S.D. (eds) 2005. *Fry Production: Nursing Spawn (English and Oriya).* WORLP. 4pp

Copley, K, Haylor, G, Savage, W and Tripathi, S.D. (eds) 2005. *Fast Fingerling Production: Nursing Spawn in Ponds (English and Oriya).* WORLP 4pp

Copley, K, Haylor, G, Savage, W and Tripathi, S.D. (eds) 2005. *Fingerling Production: Nursing Fry in Ponds.* WORLP. 4pp.

Copley, K, Haylor, G, Savage, W and Tripathi, S.D. (eds) 2005. *Fingerling Production:Nursing Spawn and Fry in Pens.* WORLP. 4pp.

Copley, K, Haylor, G, Savage, W and Tripathi, S.D. (eds) 2005. *Advanced Fingerling Production: Seasonal Ponds.* WORLP. 4pp.

Copley, K, Haylor, G, Savage, W and Tripathi, S.D. (eds) 2005. *Advanced Fingerling Production: Perennial Ponds.* WORLP. 4pp.

Copley, K, Haylor, G, Savage, W and Tripathi, S.D. (eds) 2005. *Packing and Transport of Spawn, Fry and Fingerlings.* WORLP. 4pp.

Copley, K, Haylor, G, Savage, W and Tripathi, S.D. (eds) 2005. *Marketable Fish Production: Seasonal Ponds.* WORLP. 4pp.

Copley, K, Haylor, G, Savage, W and Tripathi, S.D. (eds) 2005. *Marketable Fish Production: Perennial Ponds.* WORLP. 4pp.

Copley, K, Haylor, G, Savage, W and Tripathi, S.D. (eds) 2005. *Recognizing and Managing Common Fish Diseases.* WORLP. 4pp.

Copley, K, Haylor, G, Savage, W and Tripathi, S.D. (eds) 2005. *Marketing and Hygiene*. WORLP. 4pp.

Copley, K, Haylor, G, Savage, W and Tripathi, S.D. (eds) 2005. *One-stop Aqua Shops*. WORLP. 4pp.

8.9 Reports and data records

8.9.1 Project technical reports including project internal workshop papers and proceedings

Haylor, G, Keating, C and Bulcock P. 2005. *Final Technical Report R8334* STREAM. 22pp.

Haylor, G, Keating, C, Mukherjee, R, Savage, W and Tripathi, S.D. 2005. *Publication 8 :Final Workshop Report Bhubaneswar Orissa 30-31 August 2005* STREAM. 28pp.

Haylor, G, Keating, C, Mukherjee, R, Savage, W and Tripathi, S.D. 2005 *Publication 7:Second Monitoring and Evaluation Workshop at the One-stop Aqua Shop in Kaipara, West Bengal 17-18 May 2005*. STREAM. 28pp.

Haylor, G and Savage, W. 2004 *Publication 6: Monitoring and Evaluation Workshop, Ranchi, Jharkhand 7-8 October 2004*. STREAM. 30pp.

Haylor, G and Savage, W. 2004 *Publication 5: One-Stop Aqua Shop Planning Meeting, Purulia, West Bengal, 26 May 2004*. STREAM. 9pp.

Haylor, G and Copley, K. 2004 *Publication 3: Planning Meeting Workshop Ranchi, 29-30 January 2004*. STREAM 25pp.

Haylor, G, Savage, W and Tripathi, S D. 2003 *Publication 2: State-level Communications Strategy Workshops, Kolkata, West Bengal 30-31 October 2003; Ranchi, Jharkland, 3-4 November 2003; Bhubaneswar, Orissa, 6-7 November 2003*. STREAM. 41pp.

Haylor, G, Savage, W and Tripathi, S D. 2003 *Publication 1: Stakeholders meeting, Ranchi, Jharkland, 18-19 September 2003*. STREAM. 41pp.

Kumar, A and Mukherjee, R. 2004 *Publication 4: West Bengal Visit, Kaipara, 25-28 February 2004*. STREAM 5pp.

8.9.2 Literature reviews

8.9.3 Scoping studies

8.9.4 Datasets

8.9.5 Project web site, and/or other project related web addresses

<http://www.streaminitiative.org/Library/India/india.html>

<http://www.streaminitiative.org/Library/bpg/index.html>

<http://www.streaminitiative.org/Library/PolicyBrief/index.html>

9 References cited in the report, sections 1-7

10 Project Logframe

Narrative summary	Objectively verifiable indicators	Means of verification	Assumptions
Goal			
Strategies to provide specific groups of poor people with better access to knowledge that can enhance their decisions on management of natural capital, developed and promoted	By 2005, integrated natural resources management strategies adopted by target institutions in at least two target countries that include cost efficient delivery systems for provision of agricultural services (<i>inter alia</i> marketing, input supply, mechanization, storage, financing)	Reviews by program manager Reports of research team and collaborating /target institutions Appropriate dissemination outputs Local, national and international statistical data	Adoption of strategies changes behaviour in the private sector Enabling environment exists Budgets and program of target institutions are sufficient and well managed
Purpose			
<p>Mechanisms for the delivery of improved rural services (critical to the development of rural livelihoods of poor marginalized people with complex and diverse livelihood strategies) developed and promoted at state and national levels in India, with priority given to three target States in eastern India</p>	<p>By Sep 2005, evidence that stakeholders in at least two state-level institutions and some key national level policy actors are using the knowledge that the project has generated in ways that can benefit the poor, and specifically:</p> <ul style="list-style-type: none"> • The consensus-building process (CBP) used in at least two target States and one apex national organization towards pro-poor policy formulation • National and state level policy-related action has made use of the findings of R8100 • At least two state institutions for service provision begin to act on the policy recommendations for service improvement that the stakeholders of project R8100 identified • Farmers in at least one State recognize favorable changes for them regarding the Government’s service provision 	<p>DFID-NRSP end of project impact assessment report</p> <p>Policy-relevant GOI documentation at national level</p> <p>Policy-relevant GOI documentation at state level</p> <p>Minutes and/or other state-level reports of meetings</p> <p>DFID-India report</p>	<p>Pro-poor policy sustained in India</p>

Outputs			
<i>Promotion of process for pro-poor policy formulation</i>			
<p>1. Building on the findings of R8100, key national and state level stakeholders brought to a level of engagement with, and sense of ownership of, the Consensus-Building Process (CBP) and its pro-poor features that could engender sustained pro-poor policy formulation, particularly as it relates to the use of water bodies for livelihood enterprises</p>	<p>By Dec 2003, agreement obtained and meeting held of some kind of a Policy Working Group (PWG)</p> <p>By April 2005, a CBP Policy Brief available in draft</p> <p>By Sept 2004, at least two policy-related mini-projects, initiated by DDG-ICAR Fisheries, have specified the use of CBP in their designs</p> <p>By Aug 2005, stakeholder awareness is optimal for policy-favourable use of the CBP for pro-poor outcomes</p>	<p>Project annual report for 2003-04</p> <p>CBP Policy Brief (with evidence of state and national level involvement in its preparation and senior level endorsement)</p> <p>ICAR-DDG Fisheries policy research project reports</p> <p>State and National Government reports</p> <p>Records of PWG meetings</p> <p>Information on STREAM-India Communications Hub (SCH)</p> <p>Project display for Fish Expo India Sept 2004</p>	<p>For all Outputs:</p> <p>Key stakeholders continue to engage with the policy change objectives</p> <p>DFID-NRSP appreciates that the plans for follow-up work should be implemented respectively within the three target states, at national level, and at the level of national-state linkage</p>
<i>Capacity building for policy formulation that favours pro-poor service provision, especially for integrated aquaculture</i>			
<p>2. Potential for implementation of the pro-poor recommendations for service provision that R8100 identified further progressed through institutional capacity-building, including improved sharing of policy-related experiences and promotion of the policy recommendations in relevant government policy-related communication channels</p>	<p>By Mar 2004, state and national-level policy ‘shapers’ share a common vision on how to advance R8100’s recommendations into formal policy channels</p> <p>By Jul 2005, draft policy briefs available for the suite of pro-poor service priorities of R8100</p> <p>By Jul 2005, evidence from an improved system of quantitative and qualitative monitoring of where and how the Communications Hub has assisted pro-poor policy dialogues</p> <p>By Jul 2005, evidence of use of information in the R8100-related policy briefs by apex-level policy-makers at national and state levels</p>	<p>Project communication strategy and action plan</p> <p>Suite of policy briefs (based on the R8100 findings)</p> <p>Project display for Fish Expo India Sept 2004</p> <p>Government circulars relating to fisheries policy</p> <p>Donor documentation relating to uptake of R8100 findings</p> <p>Communications Hub records</p>	

<i>Capacity building for transforming policy recommendations into pro-poor service provision (learning-by-doing)</i>			
<p>3. State-level capacity to provide pro-poor services for livelihoods improved through stakeholders designing and pilot testing revised procedures and institutional arrangements for service delivery</p>	<p>By Feb 2004, key GO and NGO stakeholders in at least one state agree on prioritized plan to test revisions in service delivery</p> <p>By Jul 2005, stakeholders assess progress and evaluate their experiences in pilot testing of revised service delivery</p> <p>By Aug 2005, at least three stakeholders in service provision communicate their experiences to apex-level policy actors</p>	<p>Action plan for pilot testing of pro-poor service provision for integrated aquaculture</p> <p>National and/or state government and/or NGO-FFDA reports on pilot testing of revised service provision</p> <p>Donor documentation relating to uptake of R8100 findings</p> <p>Process monitoring reports of pro-poor service provision (available for the end of project workshop)</p>	
<i>Assessing progress towards livelihood improvement of target groups of the poor</i>			
<p>4. GO and NGO stakeholder understanding of the quality of their performance in pro-poor service delivery and requirements for pro-poor services further improved through assessment of emerging trends in change in livelihood circumstances of the poor people targeted in this project</p>	<p>By Jul 2005, ‘significant change’ assessed in at least one target state with a sample of at least 30% of the men and women exposed to the project’s pilot testing</p> <p>By Aug 2005, findings on ‘significant change’ communicated and implications discussed amongst intermediate stakeholders</p> <p>By Aug 2005, evidence of at least two ways by which intermediate stakeholders have internalized the project feedback</p>	<p>Farmer feedback report on pilot approaches through ‘significant change’ stories</p> <p>Communications Hub records</p> <p>Reports on emerging findings for pro-poor service provision (available for the end of project workshop)</p>	

11 Keywords

Participatory policy improvement, eastern India, aquaculture, poor tribal groups, service provision, uptake promotion, Consensus-Building Process, monitoring and evaluation