

**STREAM**

**Support to Regional Aquatic Resources Management**



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

# **Inception Report**

**May 2002**

Investigating Improved Policy on Aquaculture Service Provision  
to Poor People

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## Acronyms and Glossary

AICRP	All India Coordinated Research Project
CEO	Chief Executive Officer
Chhattisgarh	New “tribal” state of about 22 million people created out of Madhya Pradesh in 2001
Chhota Nagpur	Tribal area of eastern India
CIFA	Central Institute of Freshwater Aquaculture, Bhubaneswar, Orissa
CIFE	Central Institute of Fisheries Education, Mumbai
DFID	Department for International Development, United Kingdom
DOF	Department of Fisheries
EIRFP	Eastern India Rainfed Farming Project
FFDA	Fish Farmers Development Agency
GoI	Government of India
GVT	Gramin Vikas Trust, an NGO, formerly the DFID-funded EIRFP
ICAR	Indian Council of Agricultural Research
IDRC	International Development Research Centre (Canada)
IFAD	International Fund for Agricultural Development (UN)
IoA	Institute of Aquaculture, University of Stirling, Scotland
Jharkhand	New “tribal” state of about 19 million people created out of Bihar in 2001
NACA	Network of Aquaculture Centres in Asia-Pacific
NRSP	Natural Resources Systems Programme (DFID)
Rabi	Winter cropping season often associated with irrigation
Rupee	Indian currency (US\$ = 47 Rupees)
Sardar	Labour contractor
SC and ST	Scheduled Castes and Scheduled Tribes
STREAM	Support to Regional Aquatic Resources Management
VSO	Voluntary Service Overseas, a UK-based international NGO

## 1. Introduction

This document is the Inception Report of the DFID NRSP Research Project R8100 (March 2002 – May 2003), being managed by the Network of Aquaculture Centres in Asia-Pacific (NACA) under the STREAM Initiative. The purpose of the project is 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 objectives, strengths and constraints of marginalized groups and their complex diverse livelihoods. (For more details, see Project Memorandum R8100 available from the STREAM Regional Office.)

An Inception Visit was made by Dr Graham Haylor, Mr William Savage and Dr S D Tripathi from 17-24 March 2002 (Terms of Reference in Appendix 1). The team met with colleagues in Mumbai, Delhi and Ranchi, where discussions and field visits were conducted to inform this Inception Report. Summaries of these activities can be found in Appendix 2.

The Inception Report highlights the project's poverty focus, its geographic scope and key stakeholders, a potential policy change mechanism, the project workplan and its revised logframe.

## 2. Poverty Focus of the Project

### 2.1 Demographic 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.

### 2.2 Livelihoods of Poor People

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 follows:

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.

### 3. 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 R8100 project would first consult with poor men and women in tribal areas would be Jharkhand, Orissa and West Bengal, facilitated by GVT and DOF.

*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

### 4. Policy Change Mechanism

#### 4.1 Background to Current Policy

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 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 FFDA's 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%. 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. [Note that Jharkhand was formerly part of Bihar and Chhattisgarh was formerly part of Madhya Pradesh.]

Table 2: FFDAs in States with Large Tribal Populations

State	No. of FFDAs	Water area (ha)	Fish farmers trained	No. of beneficiaries	Average productivity (kg/ha/yr)	Total 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

#### 4.2 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 Aquamillennium 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, coordinated 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 research and contextual information collection. Project partners included the Eastern India Rainfed 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.

### **4.3 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."

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 Rainfed 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 northeastern 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.

#### **4.4 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" rainfed 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" (Appendix 3) was drafted and provided to the Commissioner by 31 March 2002. This Inception Report will follow by 31 May 2002. A plan for "Investigating Improved Policy on Aquaculture Service Provision to Poor People" is proposed in section 5. 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.

### **5. Project Workplan and Revised Logframe**

As a result of the Inception Visit, and the fruitful, enthusiastic discussions with a range of colleagues and stakeholders, the proposed project workplan has been revised (Table 3). For another view of the process, see the project flow-chart in Appendix 4. The activities in both the workplan and flow-chart are numbered to correspond with the activities in the revised logframe (Appendix 5).

Table 3: Project Workplan

Month	Activities	Roles and Responsibilities
March 2002	Inception Visit (1.1)	Co-ordinator (Graham Haylor) and Communications Specialist (William Savage) travel to Mumbai, Delhi and Ranchi to meet Dr Tripathi, Dr Ayyappan, DFID India, Fisheries Development Commissioner, ICAR Deputy Director General (Fisheries), VSO, GVT CEO, GVT Ranchi and West Bengal, and DOF Ranchi Visit tribal areas in Jharkhand and West Bengal to identify specific locations, key actors and processes Plan first workshop (1.2) for May 2002
May 2002	Inception Report (1.1) on feasibility and process for transacting change, drafted	Prepare Inception Report detailing feasibility, process, and a revised project workplan and logframe For feedback and revision at the Recipients and Implementers Workshop (1.2)
May 2002	Recipients and Implementers Workshop (1.2)	Communications Specialist to facilitate in Ranchi, with advance fieldwork in tribal areas in Jharkhand with Dr Tripathi, GVT co-facilitators and DOF Ranchi Submit workshop report detailing agreed plan, mechanisms and indicators
May-December 2002	“Lessons learnt from elsewhere” (2.1)	Co-ordinator to engage a researcher on study of “lessons learnt from elsewhere” Draft to be presented and discussed at Stakeholders Workshop (2.3) for feedback
July 2002 – February 2003	Conduct case studies (1.3) in tribal areas, highlighting service provision from recipients’ viewpoints, and eliciting recommendations for change	In Jharkhand, Orissa and West Bengal, in collaboration with GVT, DOF and FFDA, facilitated so that service recipients “can be given space to explain how it is for them”, using a variety of media and local languages
July 2002 – February 2003	Conduct a process characterized by anonymity of responses and iterative and controlled feedback, with representatives of key stakeholder groups, to arrive at a consensus on “modes and priorities for policy change” (2.2)	Involve key policy actors in a consensus-building process using a Delphi technique and analysis, with inputs from the “lessons learnt from elsewhere” (2.1) and case studies (1.3)
September 2002	State workshops (2.3)	State workshops will be held in Jharkhand, Orissa and West Bengal especially involving State and District Government officials as well as number of tribal communities
December 2002	Stakeholders Workshop (2.4)	Stakeholders engage to agree indicators for assessing progress in the process of transacting institutional and technical change
March 2003	Prepare briefing materials for Policy Review Workshop (3.1)	Prepare briefing materials and plan workshop based on deliverables from activities 2.1, 1.3 and 2.2
April 2003	Policy Review Workshop (3.2)	Facilitate Policy Review Workshop
May 2003	Draft documents (3.3) (2.5)	Report on the progress towards policy change and lessons learnt, and on the transaction process and lessons learnt

## Appendix 1: Inception Visit Terms of Reference

Dr Graham Haylor, Mr William Savage and Dr S D Tripathi will plan and conduct an Inception Visit in India, with these Terms of Reference:

1. The team will visit CIFE in Mumbai and discuss relevant work of CIFE and tribal development initiatives in Maharashtra.
2. The team will visit Delhi to brief and consult with members of GoI Fisheries, ICAR and DFID, and to discuss the project proposal.
3. The team will visit Ranchi to brief members of GVT and discuss the proposal. Field visits to tribal communities will be made to help the team formulate an appropriate consultation process.
4. An Inception Report drafted by the team will recommend:
  - specific geographical locations for case studies where these are deemed appropriate,
  - a process to understand recommendations for change from recipients of service provision for aquaculture development in tribal areas of at least two states,
  - a process for a multi-level stakeholder discussion of modes and priorities for policy change (possibly using a Delphi technique), and
  - indicators for assessing progress in the process of transacting institutional and technical change
5. The team will make an assessment of the likelihood of successfully transacting policy change.
6. The team will prepare a plan for conducting and documenting the transaction process and documenting lessons learnt.

## Appendix 2: Summary of Inception Visit Activities

17-03-02	<b>Graham Haylor</b> and <b>William Savage</b> arrive in Mumbai
18-03-02	<b>Dr Ayyappan</b> (Central Institute for Fisheries Education) and <b>Dr Tripathi</b> (Inception Visit team member, former Director CIFA and CIFE, ICAR). Discussed the proposal and the STREAM Initiative, formulated visit plans and visited CIFE.
19-03-02	<b>Raghavendra Rao</b> (Rural Livelihoods Advisor, DFID India, especially West Bengal) and <b>Dr Kevin Crockford</b> (Rural Livelihoods Advisor, DFID India, especially Madhya Pradesh) confirmed that aquaculture was an important component within the portfolio of livelihoods activities that were considered valuable. They were positive about the NRSP project. They had recently reviewed Gramin Vikas Trust (GVT) activities including aquaculture and confirmed that the IFAD/DFID programme proposed for the states of Jharkhand and Chhattisgarh (formerly tribal areas of Bihar and Madhya Pradesh respectively), with a substantial aquaculture component, was set to begin. They commended the STREAM Initiative and the proposed NRSP policy change project, and hoped to contribute to both. Raghu Rao will take a position on the Regional Co-ordinating Committee of the STREAM Initiative and co-ordinate information exchange with all the Livelihoods Advisors. They requested multiple copies of STREAM documentation to share with partners at state level and a copy of the Inception Report.
20-03-02	<b>Dr M K R Nair</b> (Fisheries Development Commissioner): We discussed the aquaculture research and development work undertaken and the level of uptake by tribal groups, especially in eastern India, and highlighted some policy concerns that had arisen. The Commissioner said that there are many programmes for tribal groups under different schemes. However, he stressed that in spite of efforts, the aquaculture development needs of tribal groups were not being adequately addressed. In the (new) Tenth Five-year Plan April 2002-2007, some 24 schemes are to be reduced down to four or five umbrella schemes. There are special concessions for SCs and STs, and in the NE region (due to topography and soil resulting in higher pond construction costs); for example, higher subsidies are available. We discussed the timeframe and mechanisms for linking in with the planning process. The process began about two years ago and takes the form of a broad outline, discussion by the Planning Commission, and discussion over the budget with the Finance Ministry. The Tenth Plan will be finalised in May 2002. The Commissioner suggested that we might play a role in recommending reforms to the FFDA scheme or suggest a new “tribal” rainfed fish farming component. He suggested there were pros and cons to each but showed some preference for the latter. Given the state of the current planning process he thought we might be able to launch such a component early next year. He then suggested elements of our potential input to that process, including interactive seminars and consultations that might lead to recommendations as to if a new scheme or components of a new scheme would be most relevant. He asked if we knew from work to-date if we were able to describe policy concerns and constraints, and if so could these be presented to him to enable a slot to be created within the Tenth Plan. Such a submission would also indicate further directions necessary more in-depth data and information to be gathered. He asked who our contact point would be for this project. We asked if this could involve him. The Commissioner had been unaware of NACA’s rural development programme or of the STREAM Initiative but expressed his willingness to be our contact point for interaction on the policy process with his department. He suggested that an exchange of letters between STREAM/NACA and him would be the appropriate way to move forward. With this submission we would also request him to endorse letters of support to the directors of the states to be involved, and the concerned districts, which he agreed to do. He would be willing to receive a “component concept note” from us by 31 March, then by May he would like to receive the Inception Report for the NRSP project and hoped that we could jointly develop a new component over one year. We also welcomed the opportunity for the “component concept note” to get feedback from the interactive consultative processes. Unpublished details of the recent critical review of the FFDA’s chaired by Dr Ayyappan would be made available from CIFE.

## Appendix 2: Summary of Inception Visit Activities (continued)

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20-03-02	<p><b>Dr Kopalkumar</b>, Deputy Director General (Fisheries), Indian Council of Agricultural Research (ICAR). As a NACA Governing Council member, Dr Gopalkumar was aware of NACA's rural development programme and of the STREAM Initiative. He expressed his willingness to support, in whatever way ICAR could, the policy change process proposed by the NRSP project. He suggested that the key link person for this process should be the Fisheries Development Commissioner (Dr Nair) and promised support from his department. He suggested that from an administrative viewpoint, STREAM/NACA already had an agreement with the Government of India and was the most efficient and appropriate way to move forward, as a separate agreement between NRSP and ICAR would be a long time in coming in relation to a 15-month project. Dr Kopalkumar confirmed his retirement will be at the end of next month.</p> <p><b>Arun Muttreja</b>, VSO, returned to working in India about six years ago. The organisation focuses on work in Uttar Pradesh, Uttaranchal, Tamil Nadu, Orissa, West Bengal, Karnataka and Delhi, in health, education and livelihoods. They work most commonly with other NGOs. VSO India had been made aware of the STREAM Initiative by the SE Asia regional co-ordinator. The proposed South Asia VSO co-ordinator position is still seeking a candidate. Arun Muttreja will leave VSO India in July; his successor is being recruited.</p>
21-03-02	<p><b>Dr V S Tomar</b> (CEO) and <b>Mr Gangwar</b> (Project Manager) of the Gramin Vikas Trust (GVT) [formerly the DFID-supported Eastern India Rainfed Farming Project (EIRFP)] were positive about working in partnership with the STREAM Initiative and the NRSP to give tribal people a voice in a proposed aquaculture policy change process. They were extremely interested in the process for policy change being explored by the NRSP project as the key focus of GVT is now sharing the processes and outcomes from their work (including six years of experience of working in aquaculture with poor marginalized people, mainly from tribal groups). They said that, 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 deficit farmers (those 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 had 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 had been a new and successful undertaking researched in partnership with NRSP and ICAR.</p>
22-03-02	<p>Graham Haylor attended the Department of Fisheries seminar on "Sustainable Development of Fish Culture in Jharkhand State" on 22-23 March at Engineers Hall, Doranda, Ranchi. He met with <b>Ashish Kumar</b> (Deputy Director General of Fisheries); <b>Babulal Marandi</b> (Chief Minister), <b>Devidhan Besra</b> (Fisheries Minister, Jharkhand State), <b>P K Jajoria</b> (Secretary of Fisheries, Jharkhand State), <b>Rajeev Kumar</b> (Director of Fisheries).</p> <p>William Savage and Dr Tripathi visited Ranipur, Purulia, West Bengal with <b>Gautham Dutta</b>, and attended a <i>kisan mela</i> (farmers fair) organised with GVT.</p>
23-03-02	<p>William Savage and Dr Tripathi visited village men associated with Kalyani Nari Kalyan Samiti (Kalyani Womens Welfare Groups), Hajra Bandh (pond), Jabura, Bajra Cluster, Purulia, West Bengal.</p>
24-03-02	<p>William Savage and Dr Tripathi visited a village with <b>Dr K P Singh</b> and <b>M K Mishra</b> (GVT engineer) to see a GVT check-dam and other civil engineering works.</p> <p>A final meeting took place with William Savage, <b>Mr Gangwar</b> and <b>Dr K P Singh</b>. GVT needs letter through the CEO (cc to Gangwar, K P Singh and Sodhi) and a brief project description, indicating GVT involvement, how GVT would benefit, and comments about budgets. K P Singh will check venues for a workshop in Ranchi. Three co-facilitators (Pinki Singha, Mamta Rani and Smita Swetha) were proposed to assist with the workshop process. GVT would like a copy of the "component concept note" for the Fisheries Development Commissioner and the Inception Report. There is also a need to finalise the project workplan and inform all stakeholders of the process.</p>

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## Appendix 3

### **Component Concept Note (DRAFT) Aquaculture Diversification and Self-help Investment Support – ADIVASIS**

#### **1 Background**

During a 20 March 2002 meeting in Delhi, a DFID NRSP mission, comprising Graham Haylor (Director, STREAM Initiative), William Savage (Communications Specialist, STREAM) and Satyendra Datt Tripathi (Indian Fisheries and Institutions Specialist), met with the Fisheries Commissioner, Dr Nair. They discussed aquaculture research and development work supported by DFID and the level of uptake by tribal groups, especially in Eastern India, and agreed that some policy concerns had arisen.

The Commissioner highlighted that there are many programmes for tribal groups under many different schemes. However he stressed that in spite of efforts, the aquaculture development needs of tribal groups were not being adequately addressed. He indicated that in the proposed Tenth Five-Year Plan (April 2002-07), the existing 24 or so schemes are to be reduced down to four or five umbrella schemes. There are special considerations for Scheduled Castes and Scheduled Tribes, and the farmers in the eastern region (due to topography and soil resulting in higher pond construction costs) for whom higher subsidies are available.

The Commissioner invited the DFID NRSP project “Investigating improved policy on aquaculture service provision to poor people” under the STREAM Initiative, in association with the Network of Aquaculture Centres for Asia-Pacific (NACA), to play a role in recommending reforms to the FFDA scheme or even suggesting a new “tribal” rain-fed fish farming component. He suggested there were pros and cons to each but showed some preference for a component within an existing scheme.

We discussed the timeframe and mechanisms for the DFID NRSP project and STREAM Initiative to contribute to the Government of India planning process that will be finalised in May 2002. Given the state of the current planning process, the Commissioner indicated that it might be possible to launch such a component early next year. He then suggested elements of our potential input to that process, including interactive seminars and consultations that might lead to recommendations on whether a new scheme or components of a new scheme were most relevant. He asked if we could, based on the work done to date, describe opportunities, constraints and policy concerns and, if so, these could be presented to him to enable a *slot* to be created within the Tenth Plan.

The Commissioner agreed to be the key contact point for the project for interaction on the policy process with his department. He suggested that an exchange of letters between STREAM/NACA and himself would be the appropriate way to move forward. With this submission we would also request him to endorse letters of support to the directors of the States to be involved, and the concerned districts.

The Commissioner agreed to receive this “Component Concept Note” from STREAM by 31 March, for consideration in the Tenth Five-Year Planning, and then by May he would like to receive the Inception Report for the DFID NRSP project, which would indicate further directions and the sorts of data and information to be gathered. He hoped that we could jointly develop a new component over the next year. He also welcomed the opportunity for the Component Concept Note to get feedback from the interactive consultative processes. Unpublished details of the recent critical review of the FFDA's, chaired by Dr Ayyappan, would be made available to STREAM from CIFE.

## 2 Aquaculture and poverty alleviation: from opportunities and constraints towards policy development

### 2.1 Poor people can benefit

It has been demonstrated over six years that men and women belonging to scheduled castes and tribes, who are among the poorest communities in India, can benefit substantially from aquaculture.

### 2.2 How do we know?

Since November 1996, the DFID Natural Resources Systems Research Programme, “Integration of aquaculture into the farming systems of the eastern plateau of India” project (DFID R6759), the DFID Eastern India Rainfed Farming Project (EIRFP) (subsequently the Gramin Vikas Trust), the ICAR, Central Institute for Freshwater Aquaculture, Bhubaneswar, and the Department of Fisheries (Ranchi), Government of Bihar (now Jharkhand), worked together with 193 groups of poor men and women (over 4,500 farmers in total) in the Eastern Plateau region of India. The region is characterised by poverty and inequality, land alienation and seasonal migration. The farmers undertaking aquaculture comprised 75% men and 25% women from Scheduled Tribes (59%), Scheduled Castes (16%) and General Castes (25%), of whom 86% belong to a socio-economic category called *deficit* (see Box 1).

### 2.3 What do we mean by poor?

#### Box 1: A characterisation of *Deficit* farmers

Poor men and women, typically belonging to scheduled tribes or castes, who lack the means to produce sufficient food throughout the year. Their livelihoods can be characterised as:

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 upon local labouring for better-endowed farmers, for a 30 (women) to 50 (men) Indian Rupees daily wage (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 Chotonagpur 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 in terms of exploitation and underpayment.

(Key informant discussions March 2002 GVT Monitoring and Evaluation section)

## 2.4 What are the benefits of aquaculture?

Key Benefits		Indicators
Livelihoods improved	Appropriate livelihood opportunities identified Opportunities to use them provided	Sustained uptake of new opportunities Increased use of under-utilised resources Opportunities maintained and developed without continued external support
Migration reduced	Local labour opportunities created High opportunity cost for aquaculture labour	Migration rates substantially reduced (40-50% down to 15-20%), 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 subsidised rates for group members)
Capital assets built	Group formation (building social capital - as an entry-point for development)	Self-selecting, self-sustaining groups
	Building group 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% from money lenders)
	Developing new livelihood skills (appropriate training, building human capital)	"Jankars" develop skills and experience
	Improved resource use (natural capital assets developed)	Seasonal water bodies utilised for aquaculture stages
	Mini-dam development (building physical capital)	New water bodies provide aquaculture opportunities

(Key informant discussions March 2002 GVT Monitoring and Evaluation section)

## 2.5 What are some opportunities?

Appropriate forms of aquaculture have been identified, introduced and tested with representative groups of poor people in Eastern India. Despite a cultural bias towards fish in the diet and a physical resource base that can support fish culture, aquaculture did not form a component of the farming systems prior to the EIRFP's interventions. Participation with both farmer-beneficiaries and local development organisations ensured that potentials, needs and constraints were understood and incorporated into the design of service provision. Multipurpose use of under-utilised water resources that includes fish culture is now a dynamic part of peoples' livelihoods in the communities where the research was undertaken. Key Opportunities include:

- The potential of under-utilized *seasonal water bodies*. The targeting of poor groups, ensuring their access, and the introduction of species suitable for short-season conditions and local markets.
- The concept of *production niches* for groups that could not undertake full cycle aquaculture. For example, *hatchling production* of common carp and nursing of slower-growing, but popular, species typically grown in perennial ponds (Indian major carps) proved adoptable by the beneficiaries, even after project support was withdrawn.
- *Innovative extension* techniques and organic spread of the techniques introduced by the project to neighbouring communities.

## **2.6 What are some constraints?**

- Lack of awareness among development professionals of the scope for aquaculture and the range of potential options within micro-watersheds.
- Lack of capacity for participatory appraisal of men and women's strengths, objectives and constraints as a basis for support.
- Prevalent policy-focus on transferring technology rather than identifying, monitoring and adapting opportunities attuned to the cultural, technical and economic circumstances of tribal communities.
- Limited support for the formation of Aquaculture Self-help Groups and rotating micro-credit.
- Access rights are commonly disputed.

## **2.7 Policy recommendations**

Establish a new component of a scheme called ADIVASIS (Aquaculture diversification and self-help investment support) based on a participatory approach to understand the strengths, resource use priorities and constraints of (poor) farmers and fishers.

Move towards a process rather than a target-oriented approach so that recipients play a role in defining the services they need (diverse choice in the aquaculture system they employ, control over the supply of inputs, date of harvest, nature of loan or repayment schedule). Key to this will be:

- Capacity building in participatory and livelihoods approaches of fisheries officers
- Awareness raising of poverty focussed aquaculture options among fisheries officers
- Encourage the formation of self-selected Aquaculture Self-help Groups (ASHGs) based on common interests among (poor) farmers and fishers
- Provide support to establish group savings and micro-credit schemes among ASHG

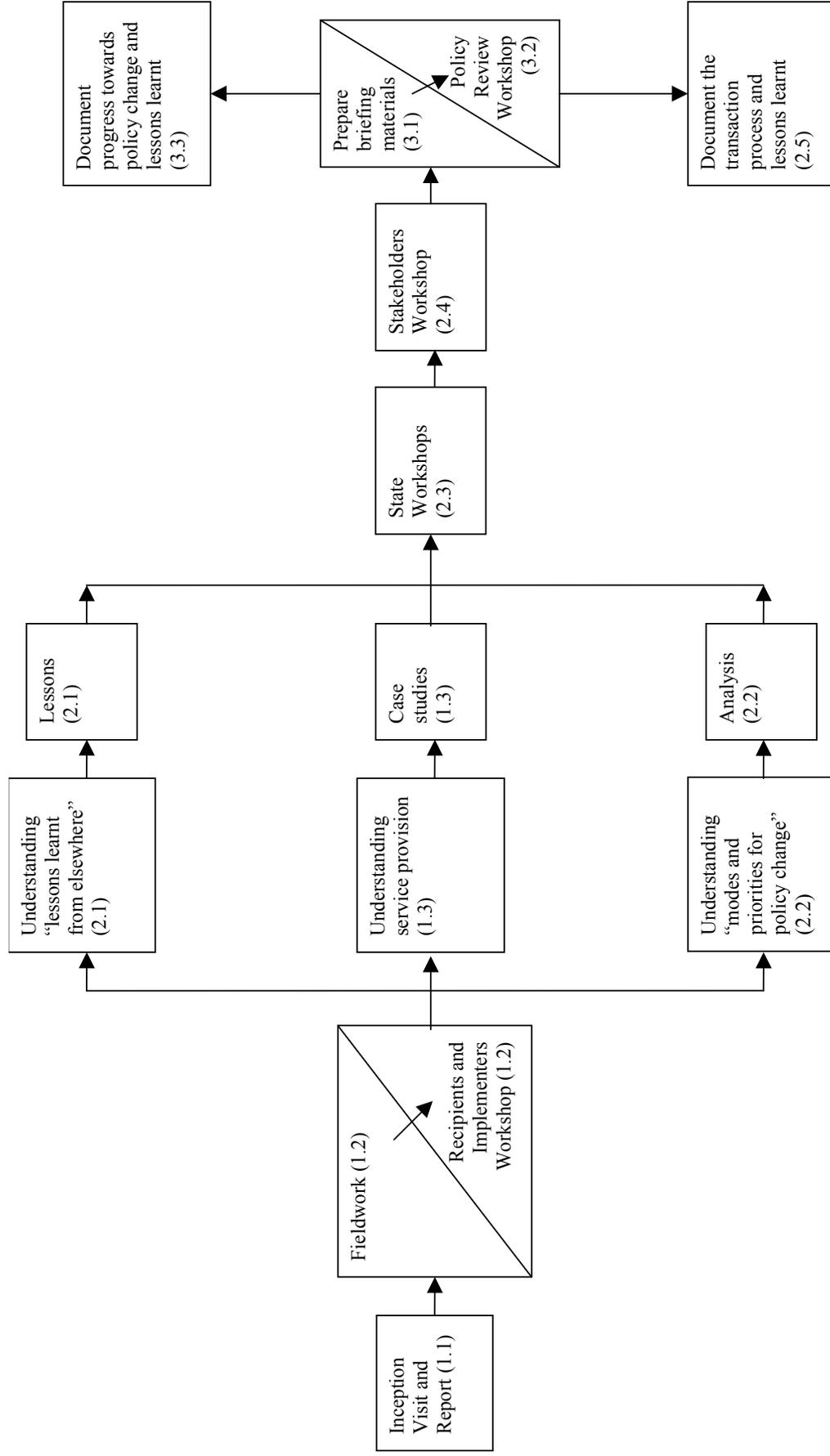
Support the development of innovative extension and communication approaches, including the use of mass media and links with other service providers in Asia-Pacific

Set up a commission to address disputes over access and leasing rights, which constrain aquaculture. Even where leasing is controlled by legal statute, problems still exist.

## **2.8 Policy development support**

If the component is proposed for the Tenth Five-Year Plan, the DFID NRSP project and the NACA STREAM Initiative would be able to work with Government of India and selected State governments to define and pilot the component.

### Appendix 4: Investigating Improved Policy on Aquaculture Service Provision to Poor People



Appendix 5: Logframe (Revised 26-04-02)

Narrative Summary	Objectively Verifiable Indicators (OVI)	Means of Verification (MOV)	Important Assumptions
<p><b>Goal</b></p> <p>Efficient systems for the provision of rural services to poor people, developed and promoted</p>	<p>By 2003, knowledge constraints to the delivery of rural services essential to the livelihoods of poor people, identified and disseminated</p> <p>By 2005, cost-efficient delivery systems for the provision of agricultural services (including marketing, market infrastructure, input supply, mechanisation, storage, financing) adopted by target institutions in two targeted countries</p>	<p>Dissemination outputs</p>	<p>Enabling environment</p> <p>Budgets and programmes of target institutions are sufficient and well managed</p>
<p><b>Purpose</b></p> <p>Mechanisms for the delivery of improved rural services critical to the development of rural livelihoods identified, tested and promoted, with emphasis on services in support of aquaculture objectives, strengths and constraints of marginalized groups and their complex diverse livelihoods</p>	<p>By 2003, through case studies in which the participation of service recipients and implementers of support are carefully facilitated, opportunities to improve the delivery of aquaculture support services for scheduled castes and tribes by government (including opportunities to improve research for these groups by ICAR and decentralized development through national-local government Fish Farmers Development Agencies) and non-government (including GVT) actors, taking account of the role for aquaculture in their livelihoods, identified and articulated by key policy actors</p> <p>By 2003, priorities for institutional change to ensure cost-efficient delivery systems for the provision of aquaculture support services targeting scheduled castes and tribes (including financing, input supply, information-sharing) agreed by target institutions in India (ICAR, DOF/FFDAs, others including GVT) through presentation and discussion of recipient case studies of service provision, using a Delphi technique and analysis</p> <p>By 2003, policy change promoted by key actors within the government system based on multi-level consensus on priorities for institutional change</p>	<p>Minutes of GVT Board meeting</p> <p>Minutes of ICAR meeting</p> <p>Monitoring report on progress of policy change proposals</p> <p>NRSP impact assessment (changes in DOF, CIFA, CIFE)</p>	

Appendix 5: Logframe (Revised 26-04-02) (continued)

Narrative Summary Outputs	Objectively Verifiable Indicators (OVI)	Means of Verification (MOV)	Important Assumptions
<p>1. Understanding developed of current context of rural aquaculture service provision for specific groups of poor people</p>	<p>By May 2002, a process and specific geographic locations agreed for case studies and recommendations for change from recipients of service provision in tribal areas of at least two states</p> <p>By February 2003, media (such as videos, drama and photos) and paper drafted to document case studies of recipients' perspectives for national multi-level stakeholders discussion of modes and priorities for policy change</p>		
<p>2. Understanding developed of processes whereby technical and institutional changes can be transacted to engender policy change that can give rise to rural aquaculture services that are inclusive of specific groups of poor people</p>	<p>By December 2002, "lessons learnt from elsewhere" compiled for stakeholder consideration in the context of rural aquaculture development</p> <p>By December 2002, indicators for assessing progress in the process of transacting institutional and technical change agreed with key stakeholders</p> <p>By February 2003, national multi-level stakeholders discussion of modes and priorities for policy change using a Delphi technique</p> <p>By May 2003, paper drafted to document the transaction process and lessons learnt</p>		
<p>3. Engagement achieved with key actors with respect to aquaculture policy-related information in such a way that it could stimulate policy debate and influence policy change</p>	<p>By April 2003, recommendations formulated for scaling-up (policy, infrastructural, institutional, and funding) which highlight how policies in support of tribal and other disadvantaged groups can be enhanced to better support the livelihoods of those target groups with contributions and support, and indicative endorsement provided by key policy actors</p> <p>By May 2003, paper drafted to document the progress toward policy change and lessons learnt</p>		

Appendix 5: Logframe (Revised 26-04-02) (continued)

Narrative Summary Activities	Objectively Verifiable Indicators (OVI)	Means of Verification (MOV)	Important Assumptions
<p>1.1 Inception Visit to Mumbai, Delhi and Ranchi (Jharkhand)</p> <p>1.2 Recipients and Implementers Workshop to define plan, mechanisms and indicators for the assessment of rural aquaculture services</p> <p>1.3 Case studies in tribal areas highlighting service provision from recipients' viewpoints, and eliciting recommendations for change (in Jharkhand, in collaboration with GVT and FFDA, facilitated so that service recipients "can be given space to explain how it is for them", using a variety of media and local languages)</p>	<p>By May 2002, Inception Report recommending any changes to the proposed logframe</p> <p>By May 2002, workshop report detailing agreed plan, mechanisms and indicators</p> <p>By February 2003, case studies and change recommendations compiled</p>		

Appendix 5: Logframe (Revised 26-04-02) (continued)

Narrative Summary Activities (continued)	Objectively Verifiable Indicators (OVI)	Means of Verification (MOV)	Important Assumptions
<p>2.1 “Lessons learnt from elsewhere” compiled of the ways whereby technical and institutional changes can be transacted to engender policy change that can give rise to rural aquaculture services that are inclusive of specific groups of poor people</p>	<p>From May-December 2002, conduct student MSc thesis, as an input for activity 2.2</p>		
<p>2.2 Conduct a process characterized by anonymity of responses and iterative and controlled feedback, with representatives of key stakeholder groups, to arrive at a consensus on “modes and priorities for policy change”</p>	<p>From July 2002 – February 2003, conduct a Delphi technique and analysis</p>		
<p>2.3 State workshops to involve state and district government officials</p>	<p>By September 2002</p>		
<p>2.4 Stakeholder Workshop to agree indicators for assessing progress in the process of transacting institutional and technical change</p>	<p>By December 2002, workshop report detailing indicators</p>		
<p>2.5 Draft document on the transaction process and lessons</p>	<p>By May 2003, draft document completed</p>		

Appendix 5: Logframe (Revised 26-04-02) (continued)

Narrative Summary Activities (continued)	Objectively Verifiable Indicators (OVI)	Means of Verification (MOV)	Important Assumptions
3.1 Prepare briefing materials and plan Policy Review Workshop and based on deliverables from activities 2.1, 1.3 and 2.2	By March 2003, distribute briefing materials to Policy Review Workshop participants		
3.2 Hold Policy Review Workshop	By April 2003, hold Policy Review Workshop		
3.3 Draft document on the progress towards policy change and lessons learnt	By May 2003, draft document completed		