

**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**

## **Indicators of Progress, Consensus-building Process and Policy Recommendations**

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

Investigating Improved Policy on Aquaculture Service Provision to Poor People

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and Policy Recommendations

February-March 2003

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  - Dr V V Sugunan, Director CIFRI, Barrackpore, West Bengal
  - Mr A K Sarkar, Secretary of State Fisheries, Jharkhand
  - Mr Rajiw Kumar, Director of Fisheries, Jharkhand
  - Mr Manoj K Thakur, DFO, Hazaribagh, Jharkhand
  - Mr R R Prabhakar, DFO, Saraikela, Jharkhand
  - Mr S P Singh, DFO, Latehar, Jharkhand
  - Mr Ashish Kumar, DFO, Ranchi, Jharkhand
  - Mr A K Patnaik, Principal Secretary, Fisheries Department, West Bengal
  - Mr Supriya Gupta, Director, West Bengal
  - Mr Bijan K Mondal, ADF, Midnapur, West Bengal
  - Mr T Mondal, ADF, Purulia, West Bengal
  - Mr Samir Pal Chowdhury, MD State FDC
  - Mr A K Tripathi, Secretary of State, Orissa
  - Mr S Sahu, Director Fisheries, Orissa
  - Mr G B Porida, DFO cum CEO, Baripada, Orissa
  - Mr P K Choudhary, FEO, Dhenkanal, Orissa
  - Mr Ranjit K Das, Deputy Superintendent of Fisheries, Dhenkanal, Orissa
  - Mr P R Rout, ADF, Dhenkanal, Orissa
  - Mr T K Behera, MD Orissa FSDC

We thank each participant for working with us in such a productive and collaborative manner, and look forward to continuing our association with these friends and colleagues.

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## Consensus-building Process and Policy Recommendations

This Consensus-building Process builds on “emerging indicators of progress” originating from the planning process for the State-level Workshops. It follows on from:

- the Stakeholders Workshop in January 2003, where one of the specific workshop objectives was to review and refine “emerging indicators of progress” to feed into a Consensus-building Process
- three State-level Workshops in Purulia, West Bengal; Ranchi, Jharkhand and Bhubaneswar, Orissa in October 2002
- an August 2002 Planning Visit
- the Rural Aquaculture Service Recipients and Implementers Workshop held in May 2002 in Ranchi, Jharkhand, and
- an Inception Visit in March 2002.

Reports of these activities are available in separate documents.

The aim of the Consensus-building Process, as with all project activities, was “contributing to ‘giving people a voice’ in policy-making processes that have an impact on their livelihoods.”

### Emerging Indicators of Progress: Origin, Discussion and Feedback

During the State-level Workshops planning process, Dr S D Tripathi, Dr K P Singh, Mr Ashish Kumar and Mr William Savage reviewed and discussed the outcomes of previous project activities, with reference to the various outcomes documented in the reports. They then drafted a statement of “Emerging Indicators of Progress Towards Transacting Institutional and Policy Change” (Appendix 4 of the State-level Workshops report – October 2002). This statement was structured around three indicators of progress:

- I. Opportunities identified to improve the delivery of aquaculture services and support by government and non-government actors
- II. Priorities for institutional and policy change agreed by key actors, [suggestions for change incorporated from recipients, implementers and the project, and recommendations formulated for scaling up]
- III. Policy change promoted by key actors within the government system based on multi-level consensus on priorities for change

Of note, is that the original policy recommendations in the draft Component Concept Note (Appendix 3 of the Inception Report – May 2002), were incorporated into the “Emerging Indicators ...” This was then the primary workshop instrument about which participants at the State-level Workshops were asked to provide feedback. Using the “Indicators” draft as the starting point, participant responses and reactions to it were incorporated through feedback from fourteen discussion groups of stakeholders in West Bengal, Jharkhand and Orissa.

The “Emerging Indicators of Progress Towards Transacting Institutional and Policy Change” was revised based on the feedback from the State-level Workshops (documented in Appendix

5 of the State-level Workshops report – October 2002). This revision was then provided to participants in the Stakeholders Workshop for another round of feedback (Appendix 6 of the Stakeholders Workshop Report – January 2003). Following this, the suggested policy changes were compiled into a document called “Proposed Changes for Consensus-building Process” (Appendix 7 of the Stakeholders Workshop report – January 2003). This version then formed the initial discussion document for the Consensus-building Process which commenced immediately after the Stakeholders Workshop.

## Note on Nomenclature

At the outset of this project and in early project reports, the process of building consensus was referred to as the “Delphi technique”, named after the Greek city of Delphi, which in ancient times was considered the center of the known world, the place where heaven and earth met. This was the place on earth where man was closest to the gods. The cave where the divinity Gaia (Mother Earth) uttered prophecies, guarded by her son, the serpent Python, dates from the second millennium BC (Mycenaean period). The Delphi technique was developed by the Rand Corporation in the late 1960s as a forecasting methodology. Later, the US government enhanced it as a group decision-making tool with the results of Project HINDSIGHT, which established a factual basis for the workability of Delphi. That project produced a tool in which a group of experts could come to some consensus of opinion when the decisive factors were subjective, and not knowledge-based.

Delphi is particularly appropriate when decision-making is required in a political or emotional environment, or when the decisions affect strong factions with opposing preferences. The tool works formally or informally, in large or small contexts, and reaps the benefits of group decision-making while insulating the process from the limitations of group decision-making, e.g., over-dominant group members, deference to seniors. The technique has four distinguishing features: anonymity, iteration with controlled feedback, statistical group response and expert input.

To avoid confusion about the name of the process and because Greek mythology is not commonly known in India, which enjoys a rich culture inspired by Hindu, Muslim, Buddhist and other religious and secular stories, the term “Consensus-building Process” was used.

## Consensus-building Process

Project team members spent time preparing a list of Consensus-building Process (CBP) participants (Appendix 1) who develop and implement policy nationally and in the three states. They also prepared a “Brief on Consensus-building Process” (Appendix 2) for distribution to the CBP participants (this first appeared as Appendix 8 of the Stakeholders Workshop report). The participants included national policy development and implementation stakeholders (Deputy Fisheries Commissioner and relevant Indian Council for Agricultural Research Fisheries Institute Directors), and state-level policy-makers and implementers [including Secretaries of State for Fisheries, State Fisheries Directors, Assistant Fisheries Directors and District Fisheries Officers, and Managing Directors of the State Fisheries Development Corporations (FDCs)].

The “Briefing for First Round of Consensus-building Process (CBP-1)” (Appendix 3) was sent out to the participants on 14 February 2003. The “Institutional and Policy Changes Proposed by Stakeholders” contained 42 recommendations for policy changes derived from stakeholders who participated in previous project workshops. These colleagues included:

- Participants from communities in Jharkhand, Orissa and West Bengal who represented people who were receiving support from government and NGOs (e.g., GVT), including Jankars, and communities receiving no support
- GVT senior staff, Community Organizers and others
- DOF and ICAR-CIFA staff, and
- NRSP project staff.

Two facilitators on the ground in eastern India visited all participants individually to explain the CBP-1 documents and to elicit their individual responses. The process across the three states and with the national-level participants (in Delhi) took ten days.

Participants were asked to rank each of the 42 proposed changes as 1, 2 or 3 (1 = most important; 2 = next most important; and 3 = least important) by putting 1, 2 or 3 in the “importance” column next to the proposed change. The resulting opinions from the first round of the Consensus-building Process (CBP-1) were collated and captured as unrestricted preference ranks<sup>1</sup>. The arithmetic mean and standard deviation (STDEV)<sup>2</sup> were calculated for each change from the responses of all participants. These were then ranked in order from lowest to highest mean value. The lowest mean values indicate the most important changes; the lower the standard deviation, the greater the level of agreement among participants. If *all* participants had agreed on exactly the same policy recommendation being most important, its mean value would be one and its standard deviation would be zero (the lowest possible mean value). If *all* participants had agreed on exactly the same policy recommendation being least important, its mean value would be three (the highest possible mean value), and its standard deviation would be zero. In the event, mean values ranged from 1.048 to 2.429. The proximity of the lowest mean values to 1 is an indicator of the degree of consensus about the most important changes.

To select from the 42 policy change priorities proposed by project participants and ranked (1, 2 or 3) by the Consensus-building Process participants, change priorities with mean values less than 1.5 were selected. This resulted in 12 prioritized recommendations (Table 1).

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<sup>1</sup> To maintain the anonymity of participants in the Consensus-building Process, details of the collated responses have not been printed here. They are on file in the STREAM Regional Office. Persons interested in this information may contact the first author.

<sup>2</sup> “Mean” (it is close enough to say “average”) is a measure of the middle point (in this case, of a group of responses that one would not expect to be identical). You add the responses and divide by the number of responses.

“Standard deviation” (STDEV) is a measure of the spread about the mean, a measure of the degree of agreement (if it is small) or disagreement (if large).

“Ranking” in this case means putting the numbers in order from smallest to largest.

*Table 1 Consensus-building Process (CBP-1): Policy Change Recommendation (Mean < 1.5)*

<b>Proposed Changes</b>	<b>Mean</b>	<b>STDEV</b>
1. Develop infrastructure for timely production of fingerlings at local level	1.048	0.218
2. Procedure should be simplified for getting government schemes and bank loans	1.095	0.301
3. Government needs to change how information is made available to farmers, since information on its schemes to support fish culture is required to be known to farmers	1.238	0.436
4. Integrated aquaculture may be encouraged and loans and other facilities extended on a priority basis so that farmers may not suffer during aquaculture stress periods	1.238	0.436
5. Leases should be given to Self-Help Groups (SHGs) for ten years	1.286	0.463
6. Site selection for pond construction should be given proper emphasis	1.333	0.577
7. Timeliness of delivery of services, support and materials	1.333	0.577
8. Establishment, defining and identification of model aquaculture villages for benefits to be disseminated to nearby “untouched” villages	1.333	0.483
9. Encourage formation of self-selected Aquaculture Self-Help Groups (ASHGs) based on common interests among farmers and fishers	1.381	0.590
10. Insurance schemes for aquaculture	1.429	0.507
11. Provide support to establish group savings and micro-credit schemes among Aquaculture Self-Help Groups (ASHGs)	1.429	0.507
12. Water quality testing equipment (should be provided)	1.476	0.512

The “Briefing for Second Round of Consensus-building Process (CBP-2)” (Appendix 4) was sent to participants on 10 March 2003. They were asked to describe the level of their agreement with the selection that had resulted from the first round of the process. Where people wanted to make a change, they were asked which recommendation(s) from the original list of 42 (also attached) should be included. More than three-quarters of the CBP participants agreed with the selection; the remainder highlighted changes or clarifications. Three respondents from Orissa and one from West Bengal felt that the recommendation for a “single-point under-one-roof service provision” should be included in the final selection (for an explanation of this approach, see Box 1).

One respondent from Jharkhand pointed out that capacity-building of Jankars and recipients, in terms of provision and use of equipment (such as that for testing water quality) and of technical knowledge, is essential on a priority basis as they are the main connecting link between government, technology and farmers. It was pointed out that the proposed policy change #5 [of the original 42] (capacity-building of Jankars and recipients and equipment of technical knowledge is essential on a priority basis as they are the main connecting link between the government, technology and farmers), would be more appropriate than #28 (water quality testing equipment should be provided), as the latter dealt only with equipment provision.



One respondent from Jharkhand felt that the Self-Help Group (SHG) approach was valuable and that these should be members of the Fishermen's Development Committee.

With these three modifications made, 13 agreed prioritized policy change recommendations from the Consensus-building Process are presented in Table 2.

*Box 1 "Single-point Under-one-roof Service Provision"*

A significant number of stakeholders at the implementation level consistently advocated for policy change that would enable farmers to access services such as information, financial capital and inputs, all at one location.

Currently the process can be described as:

- Interested farmers have to first go to the bank for information about getting a loan for aquaculture
- For any information about seed availability, farmers have to go to a local hatchery (both government and private)
- For technical information about fish species and water quality analysis, farmers have to go to the District Fisheries Office.

In this way, farmers have to make their way to 3-4 places to get information they need, wasting their valuable time in the process. During CBP-2, a number of participants expressed the need for a single point for information, under one roof, where farmers could get the information.

A single-point information mechanism will also help in establishing an assured database for planners and the target group.

(Mr Bijan K Mondal, ADF, Midnapur West Bengal; Mr G B Porida, DFO cum CEO, Baripada, Orissa; Mr Ranjit K Das, Deputy Superintendent of Fisheries, Dhenkanal, Orissa; Mr P R Rout, ADF, Dhenkanal, Orissa)

*Table 2 Consensus Building Process (CBP-2): Policy Change Recommendations Agreed*

<b>Agreed Prioritized Changes</b>
1. Develop infrastructure for timely production of fingerlings at local level
2. Procedure should be simplified for getting government schemes and bank loans
3. Government needs to change how information is made available to farmers, since information on its schemes to support fish culture is required to be known to farmers
4. Integrated aquaculture may be encouraged and loans and other facilities extended on a priority basis so that farmers may not suffer during aquaculture stress periods
5. Leases should be given to Self-Help Groups for ten years (it should be considered if these should be members of the Fishermen’s Development Committee)
6. Site selection for pond construction should be given proper emphasis
7. Timeliness of delivery of services, support and materials
8. Establishment, defining and identification of model aquaculture villages for benefits to be disseminated to nearby “untouched” villages
9. Encourage the formation of self-selected Aquaculture Self-Help Groups based on common interests among farmers and fishers
10. Insurance schemes for aquaculture
11. Provide support to establish group savings and micro-credit schemes among Aquaculture Self-Help Groups
12. Capacity-building of Jankars and recipients and equipment for water quality testing (which should be provided) is essential on a priority basis as they are the main connecting link for technical knowledge between the government, technology and farmers
13. Single-point under-one-roof service provision (see Box 1 again)

### Outcome of the Consensus-building Process

The process built consensus among national and state-level policy-makers about priorities for policy changes derived from stakeholders. Agreement was strong and the Consensus-building Process concluded after two iterations.

It is the view of participants that integrated aquaculture may be encouraged, and loans and other facilities extended on a priority basis, so that farmers may not suffer during aquaculture stress periods. Participants agreed that procedures should be simplified for getting government schemes and bank loans. The government also needs to change how information is made available to farmers (means and languages), since information on its schemes to support fish culture is required to be known to farmers. The most pressing need is to develop infrastructure for timely production of fingerlings at local level and to ensure the timeliness of delivery of services, support and materials.

There is consensus that support for aquaculture should be mediated through self-selected Aquaculture Self-Help Groups based on common interests among farmers and fishers. The formation of such groups should be encouraged. Site selection for pond construction should be given proper emphasis and leases should be given to Self-Help Groups for ten years (it should be considered if these should be members of the Fishermen's Development Committees). Support should be provided to establish group savings and micro-credit schemes among Aquaculture Self-Help Groups (ASHG). Capacity-building of Jankars (group representatives) and recipients of equipment for water quality testing (which should be provided), is essential on a priority basis as they are the main connecting link for technical knowledge between the government and farmers. Insurance schemes for aquaculture should be made available.

In terms of broader sharing, there was agreement that the benefits of the ASHG approach should be disseminated to nearby "untouched villages" through the establishment of model aquaculture villages where people could see examples of self-help groups in operation.

### Policy Recommendations

As the government of India enters its 10th 5-year planning cycle, thought is being given to how to refine and reshape existing policies and even develop new ones. In March 2002, the Fisheries Commissioner in Delhi invited the DFID NRSP project under the STREAM Initiative, in association with NACA, to play a role in recommending reforms or in developing a new concept (see Inception Report – May 2002). In his Memo No. 31035/4/2000, he encouraged Secretaries, Directors and their staff to take part in this Consensus-building Process.

How do the policy recommendations from this process fit with the Vision Statement of the Department of Animal Husbandry and Dairying, Ministry of Agriculture of the Government of India? According to the latest Vision Statement of the Department of Animal Husbandry and Dairying (undated), the Department of Fisheries occupies an important place in the socio-economic development of the country. The Department recognizes that fish is a source of livelihoods for a large section of the economically-underprivileged population. It highlights that average animal protein intake in India is low: 10 g compared to a world average of 25 g. The role of the Department of Fisheries is seen as the expansion of aquaculture, inland and marine fisheries and looking after the welfare of fisherfolk. The Department estimates that 8-8.5 million tons of fish will be required by 2020 (1999-2000 production was 5.7 million tons).

The Department's current milestones are bulleted below with annotations drawn from the outcomes of the Consensus-building Process. These include:

- Brackish and freshwater aquaculture to contribute more than 85% of inland fisheries production within ten years.

From the paragraph and the milestone above, it is clear that the need to support aquaculture in respect of the welfare of poor people is encapsulated in the Consensus-building Process and the Vision Statement.

- Welfare schemes to be evaluated and revised for the 10th Plan within one year.

Therefore the opportunity to revise the 10th Plan for the provision of support through Self-Help Groups has a one-year window.

- All the revised schemes for the 10th Plan should be finalized and implementation to be started within two years.

There is then another year to begin their implementation with improvements in local level infrastructure for fingerling provision and the timely supply of inputs and services.

- Insurance schemes for aquaculture to be made operational in one year.

The need for insurance is a shared vision of Consensus-building Process participants and the Departments of Fisheries.

- Management information system for sector to become operational within five years.
- Extension materials to be available through the internet in all regional languages within ten years.

These milestones relate to the strong consensus identified in the Consensus-building Process about the need to change how information is made available to farmers.

- Legal measures required for the implementation of the code of conduct for responsible fisheries to be finalized within five years.
- Fish disease diagnostic facilities where aquaculture contributes most of the production of the inland sector within five years.
- Fisheries potential to be re-evaluated for marine and inland within five years.
- Inland Fisheries Acts to be enacted in all states within five years.

The above milestones provide opportunities to enact appropriate legislation in support of new approaches to service provision highlighted by the Consensus-building Process.

Current Department programs which might be revised include:

- Development of Fresh Water Aquaculture Program – this includes 422 Fish Farm Development Agencies nationally.
- Fisheries Training and Extension Program – this focuses on training staff, assisting fisherfolk and upgrading and assistance to two Centers.

*Appendix 1 Participants*

	<b>Participant</b>	<b>Office</b>	<b>Role in Policy</b>	<b>Location</b>
1	Dr Chauchan	Deputy Commissioner Fisheries	The Deputy Commissioner and the Commissioner assist the Joint Secretary in formulating policies for the country which are to be funded partly or wholly by the central Government to the State Governments.	Delhi
2	Mr A K Sarkar	Secretary of State Fisheries	The final authority who forms the policies and makes rules for his state. Implements new policies throughout the state, particularly policies related to financial support.	Jharkhand
3	Mr Rajiw Kumar	Director of Fisheries	The Director shares the experience in the field with the Secretary and recommends further changes. All the ADFs and DFOs report to the Director, so through them he implements new policies at village level.	
4	Mr Manoj K Thakur	DFO Hazaribagh	Come into direct contact with villagers and the Director so they can implement new policies easily.	
5	Mr R R Prabhakar	DFO Saraikela		
6	Mr S P Singh	DFO Latehar		
7	Mr Ashish Kumar	DFO Ranchi		
8	Dr VV Sugunan	Director, CIFRI, Barrackpore	Research provides knowledge that can contribute to policy, and training can support implementation.	West Bengal
9	Mr A K Patnaik	Principal Secretary, DOF	The final authority who forms the policies and makes rules for his state.	
10	Mr Supriya Gupta	Director of Fisheries	See 3	
11	Mr Bijan K Mondal	ADF, Midnapur	See 4-7	
12	Mr T Mondal	ADF, Purulia		
13	Samir Pal Chowdhurry	MD State FDC		
14	Dr K J Ram	Director, CIFA	See 8	Orissa
15	Mr A K Tripathi	Secretary of State	See 2	
16	Mr S Sahu	Director of Fisheries	See 3	
17	Mr G B Porida	DFO cum CEO FFDA, Baripada	See 4-7	
18	Mr P K Choudhary	FEO, Dhenkanal		
19	Mr Ranjit K Das	Deputy Superintendent of Fisheries, Dhenkanal		
20	Mr P R Rout	ADF, Dhenkanal		
21	Mr. T.K. Behera	MD FSDC		

Note: The Joint Secretary, Ministry of Agriculture and Cooperation, GOI, is the final authority for making policies at the highest level.

## *Appendix 2 Brief on Consensus-building Process*

### **Aquaculture is not new so why all the fuss now?**

Aquaculture is not a new farming activity. Indian major carps have been grown together in ponds for over 1,000 years. Over the last 30-50 years, people have become more interested in fish farming throughout Asia. There are many reasons for this new interest. As populations grow:

- fishing pressure increases (as more people are catching fish)
- agriculture is intensified (as people try to feed their families)
- people try to control flooding (which stops many fish spawning)
- they use pesticides and fertilizers (which can kill fish)
- forests are depleted, as trees are cut down
- so soils erode,
- water bodies silt up,
- so wild fish catches decline

Therefore, in regions where people eat fish, crabs, prawns or frogs, aquaculture becomes increasingly important.

Aquaculture is now one of the fastest growing food production systems in the world, with most output produced in developing countries. Most freshwater aquaculture around the world has been shown to benefit people and improve nutrition, generally with little or no damage to the environment.

### **So what is new?**

Small-scale aquaculture (for poor people) is still a new technology in many parts of the world, including India. One problem is that most aquaculture recommendations are not for poor farmers in remote, diverse and risk-prone regions. Therefore, as with many other new agricultural technologies, there are low rates of adoption, lower than expected productivity and poor sustainability of projects.

### **Who is behind this?**

The STREAM Initiative of the Network of Aquaculture Centres in Asia-Pacific (NACA) is implementing the UK Department for International Development (DFID), Natural Resources Systems Programme (NRSP) Project R8100 on “Investigating Improved Policy on Aquaculture Service Provision to Poor People”.

STREAM (Support to Regional Aquatic Resources Management) is a learning and communications initiative currently working in six Asia-Pacific countries to promote understanding of and support for the livelihoods of poor people involved with fishing and aquaculture.

**Why is STREAM doing this?**

The Government of India (GOI) recognizes the need to develop the fisheries sector, and in particular aquaculture, for disadvantaged groups. It has been demonstrated over six years by the DFID-funded KRIHBCO's Eastern India Rain-fed Farming Project that men and women belonging to scheduled castes and tribes, who are among the poorest communities in India, can benefit substantially from aquaculture.

The Fisheries Development Commissioner, Dr Nair, encouraged the regional STREAM Initiative of the intergovernmental organization NACA, with project funding from DFID NRSP, to play a role in recommending reforms under the FFDA scheme or even suggest a new "tribal" rain-fed farming component that could replicate the approach and success of groups of tribal farmers in eastern India.

Dr Nair also requested all Secretaries, Commissioner and Directors of Fisheries to request all FFDA officials to take part in a Consensus-building Process to be managed by the STREAM Initiative. This process involves workshops and the use of a Consensus-building Process that is looking at priorities for changes in policy and ways to bring these about. (GOI Ministry of Agriculture, Department of Animal Husbandry and Dairying Memo No. 31035/4/2000).

**So what is the Consensus-building Process?**

There are many "stakeholders" involved in the development of schemes to support tribal people to undertake aquaculture. These should include tribal people, researchers, policy-makers and others. Stakeholders often face a situation in which different people have conflicting views. Such differences can be over the appropriate goals of a scheme, the types of outcomes, who should be helped and in what way, or the merit and worth of particular activities.

Sometimes when people have conflicting views they argue, increasing their differences. Sometimes people are unable to say what they think, perhaps because they are intimidated by others, or because it would seem wrong to criticize a boss or an older person. The Consensus-building Process is a useful decision-making tool that can be used to build consensus or limited agreement in situations like these.

The purpose is for those involved to move towards a "oneness of mind" (consensus means solidarity of belief). The purpose is to reach a consensus together.

**How does the Consensus-building Process work?**

Each member of the "group" knows who the other group members are but each member works separately. In the first step, opinions or views on policy change are presented for comment to state and national government policy-makers to establish views and opposing views among the group. A moderator then collates the responses and returns them to the participants. They are then presented with the comments of everyone involved in the process (but without knowing which comment came from which person). They are now free to agree or disagree and to change their own view, namelessly.

All participants in the process are then to accept the collected response of the moderator and support it, perhaps changing their views to align with the new emerging consensus, or to

reject it and propose further arguments why others should change their views. Through several iterations of this evolutionary process, “oneness of mind” will be sought. The technique keeps the benefits of group decision-making while avoiding some of its limitations, e.g., over-dominant group members, political lobbying, “not wanting to criticize the boss”.

To select from the 42 change priorities proposed by project participants and ranked (1, 2 or 3) by the Consensus-building Process participants, change priorities with mean values less than 1.5 have been selected. This has resulted in the attached list of 12 prioritized recommendations.



**Appendix 3 Briefing for First Round of Consensus-building Process (CBP-1)**

<b>Project:</b>	<b>Investigating Improved Policy on Aquaculture Service Provision to Poor People</b>
<b>Implementing Agencies:</b>	<b>Government of India, Ministry of Agriculture, Department of Animal Husbandry and Dairying</b>
	<b>STREAM Initiative, Network of Aquaculture Centres in Asia-Pacific, Bangkok, Thailand</b>
	<b>Gramin Vikas Trust, Ranchi, Jharkhand</b>
	<b>UK Department for International Development, Natural Resources Systems Programme</b>
<b>Consensus-building Process:</b>	<b>February – March 2003</b>

**Institutional and Policy Changes Proposed by Stakeholders**

Please rank **each of the 42** proposed changes **1, 2 or 3** (1 = most important, 2 = next most important, 3 = least important) by putting 1, 2 or 3 in the importance column next to the proposed change.

<b>Category</b>	<b>Proposed Changes</b>	<b>Importance</b>
Training and Information		
1	Government needs to change how information is made available to farmers, since information on its schemes to support fish culture is required to be known to the farmers	
2	Periodical meetings (and support to attend) between fisheries officials and community groups for better communication (also through radio, TV, newspaper articles and journals)	
3	Service providers at Gram Panchayat level should be knowledgeable	
4	Capacity-building and training in technical aquaculture and participation (for service providers)	
5	Capacity-building of Jankars and recipients, and equipment of technical knowledge is essential on a priority basis as they are the main connecting link between the government, technology and farmers	
6	Necessary skills for fishing in ponds needs to be developed through training	
7	Exposure-cum-lesson-learning visits of Jankars and NGO officials to successful aquaculture sites and fish farmers cooperatives	
8	Capacity-building in participatory and livelihoods approaches of fisheries officers	
9	Awareness raising of poverty-focused aquaculture options among fisheries officers	

Category	Proposed Changes	Importance
<b>Planning</b>		
10	Site selection for pond construction should be given proper emphasis	
11	Leases should be given to the Self-Help Groups for ten years	
12	Single-point under-one-roof service provision	
13	Timeliness of delivery of services, support and materials	
14	In West Bengal, aquaculture planning should start at Gram Sabha-level	
15	Participation of women (to be encouraged)	
16	Integrated aquaculture may be encouraged and loans and other facilities extended on a priority basis so that farmers may not suffer during aquaculture stress periods	
17	Policies should be adopted at district level	
18	Fish breeding farm at Panchayat level	
19	Develop infrastructure for timely production of fingerlings at local level	
20	Village-level posts like Village Aquaculture Workers created	
21	Establishment, defining and identification of model aquaculture villages for the benefits to be disseminated to nearby "untouched" villages	
22	Database (using remote sensing) on water resources and farmers (registration and licensing)	
23	Increased use of non-traditional resources and systems	
24	Formulation of act to prohibit culture of banned species	
25	Leasing of ponds should be given to groups and lease period should be a minimum of 3-5 years (current policy prevents lessees from extending, which is a problem since their livelihoods come to depend on the leased pond)	
26	Development of innovative extension and communication approaches, including the use of mass media and links with other service providers in Asia-Pacific	
27	Set up a commission to address disputes over access and leasing rights, which constrain aquaculture	
<b>Inputs</b>		
28	Water quality testing equipment (should be provided)	
29	Financial (e.g., subsidies) and in-kind support during flood and drought situations	
30	Procedure should be simplified for getting government schemes and bank loans	
<b>Other Support</b>		
31	Insurance schemes for aquaculture	
32	Facilities for storage at production sites (should be provided)	
33	Provide support to establish group savings and micro-credit schemes among Aquaculture Self-Help Groups	
34	Encourage the formation of self-selected Aquaculture Self-Help Groups based on common interests among farmers and fishers	
35	Marketing through local cooperative (primary cooperative) society (to be encouraged)	
36	Address issues of alcohol abuse in fishing communities	
<b>Participation</b>		
37	(Allow more) diverse choice in the aquaculture system employed	
38	Allow farmers more control over supply of inputs they need to use	
39	Allow more flexibility about the nature of loans	
40	Allow farmers greater control over the timing of harvest	
41	Allow farmers more input into negotiation to agree a repayment schedule	
42	Greater collaboration between government and NGOs	

***Appendix 4 Briefing for Second Round of Consensus Building Process (CBP-2)***

**Project:** **Investigating Improved Policy on Aquaculture Service Provision to Poor People**

**Implementing Agencies:** **Government of India, Ministry of Agriculture, Department of Animal Husbandry and Dairying**

**STREAM Initiative, Network of Aquaculture Centres in Asia-Pacific, Bangkok, Thailand**

**Gramin Vikas Trust, Ranchi, Jharkhand**

**UK Department for International Development, Natural Resources Systems Programme**

**Consensus-building Process:** **February – March 2003**

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**Institutional and Policy Changes Proposed by Stakeholders, Prioritized by Consensus-building Process**

Thank you for contributing to the first round of the Consensus-building Process (CBP-1).

All the results have been put together and the arithmetic mean and standard deviation of participants' responses have been calculated for each recommendation. These are now arranged in ascending order of the mean values. (The lower the mean value the more important the recommendation is to the group of respondents, and the smaller the standard deviation the greater the level of agreement among respondents).

To select from the 42 change priorities proposed by project participants and ranked (1, 2 or 3) by the Consensus-building Process participants, change priorities with mean values less than 1.5 have been selected. This has resulted in the attached list of 12 prioritized recommendations.

I would now like you to answer the following:

	Strongly Agree	Agree	Make a Change*
How do you feel about the recommendations that you have selected by this process?			

\* if you have checked this box please answer the following:

	I want to include recommendation #	This is important because ...
Which recommendation(s) from the original list of 42 (also attached) should be included?		

The 12 top-ranking proposed changes from the first round of the Consensus-building Process (CBP-1):

Proposed Changes	Mean	STDEV
Develop infrastructure for timely production of fingerlings at local level	1.048	0.218
Procedure should be simplified for getting government schemes and bank loans	1.095	0.301
Government needs to change how information is made available to farmers, since information on its schemes to support fish culture is required to be known to farmers	1.238	0.436
Integrated aquaculture may be encouraged and loans and other facilities extended on a priority basis so that farmers may not suffer during aquaculture stress periods	1.238	0.436
Leases should be given to the Self-Help Groups for ten years	1.286	0.463
Site selection for pond construction should be given proper emphasis	1.333	0.577
Timeliness of delivery of services, support and materials	1.333	0.577
Establishment, defining and identification of model aquaculture villages for benefits to be disseminated to nearby "untouched" villages	1.333	0.483
Encourage formation of self-selected Aquaculture Self-Help Groups based on common interests among farmers and fishers	1.381	0.590
Insurance schemes for aquaculture	1.429	0.507
Provide support to establish group savings and micro-credit schemes among Aquaculture Self-Help Groups	1.429	0.507
Water quality testing equipment (should be provided)	1.476	0.512

The remaining changes in ranked order:

Capacity-building of the Jankars and recipients and equipment of technical knowledge is essential on a priority basis as they are the main connecting link between the government, technology and the farmers	1.571	0.507
Periodical meetings (and support to attend) between fisheries officials and community groups for better communication (also through radio, TV, newspaper articles and journals)	1.571	0.746
Development of innovative extension and communication approaches, including the use of mass media and links with other service providers in Asia-Pacific	1.571	0.811
Participation of women (to be encouraged)	1.619	0.590
Leasing of pond should be given to groups and lease period should be a minimum of 3-5 years (current policy prevents lessees from extending, which is a problem since their livelihoods come to depend on the leased pond)	1.619	0.669
Greater collaboration between government and NGOs	1.619	0.740
Service provider at Gram Panchayat level should be knowledgeable	1.667	0.658
Exposure-cum-lesson-learning visits of Jankars and NGO officials to successful aquaculture sites and fish farmers cooperatives	1.667	0.913
Capacity-building and training in technical aquaculture and participation (for service providers)	1.714	0.561
Single-point under-one-roof service provision	1.714	0.463
(Allow more) diverse choice in the aquaculture system employed	1.714	0.717
Awareness raising of poverty-focused aquaculture options among fisheries officers	1.762	0.700
Marketing through local cooperative (primary cooperative) society (to be encouraged)	1.762	0.768
Formulation of act to prohibit culture of banned species	1.810	0.680
Database (using remote sensing) on water resources and farmers (registration and licensing)	1.857	0.793
Allow farmers greater control over the timing of harvest	1.857	0.793
Village-level posts like Village Aquaculture Workers created	1.905	0.944
Facilities for storage at production sites (should be provided)	1.905	0.700
Policies should be adopted at district level	1.952	0.805
Increased use of non-traditional resources and systems	1.952	0.669
Set up a commission to address disputes over access and leasing rights, which constrain aquaculture	2.000	0.837
Financial (e.g., subsidies) and in-kind support during flood and drought situations	2.000	0.837
Capacity building in participatory and livelihoods approaches of fisheries officers	2.048	0.865
Allow farmers more input into negotiation to agree a repayment schedule	2.048	0.865
In West Bengal, aquaculture planning should start at Gram Sabha-level	2.050	1.191
Allow farmers more control over supply of inputs they need to use	2.095	0.768
Allow more flexibility about the nature of loan	2.143	0.854
Address issues of alcohol abuse in fishing communities	2.211	0.713
Fish breeding farm at Panchayat level	2.333	0.796
Necessary skill for fishing in ponds needs to be developed through training	2.429	0.746