Uptake of Adaptive Learning (R8292)

Communications Strategy

Robert Arthur

July 2005

This document is an output of the FMSP project R8292 – Uptake of Adaptive Learning funded by the UK Department for International Development (DFID) for the benefit of developing countries. The views expressed are not necessarily those of DFID.

Table of Contents

Glossary of terms used in this document

Stakeholder: Persons, groups or organisations with an interest in, or who may benefit or be negatively affected by project. Stakeholders may be sub-divided as follows:

Communication and Scaling-up (CSU) stakeholder: Organisations that are expected to implement and/or communicate the research products beyond the life of the project. These can be further divided into three types with potentially different communication needs:

- National and regional organisations prepared to promote the approach (including policy makers);
- Implementing agencies (government organisations, regional and national NGOs and collaborators);
- Organisations with a training and capacity-building remit.

Target groups: individuals, households, communities, associations, etc., that are engaged with the management of natural resources and therefore directly affected by project activities (e.g. fishers, service providers, village administration groups, management committees etc.). These groups are expected to be the end users/beneficiaries of the approach.

Collaborators: those with whom the research is conducted.

Data: Recordable facts such as facts and figures.

Information: data that has been structured and formatted. As such, information is passive. Information can be communicated and may or may not become knowledge. It needs to be transmitted, received, interpreted, processed, understood and believed in order to become knowledge.

Knowledge: The sense that is made of information. Knowledge is created through the accumulation of selected items of information. Knowledge is information, which has been interpreted, and made concrete in the light of the individual's understanding of the context.

Communication: The transmission of data, information or knowledge between two or more points. Communication is an active, dynamic process in which ideas and information are exchanged leading to modification of people's knowledge, attitudes or practices.

Dissemination: The process of passing on research outputs, or information about research outputs, to uptake pathways.

Product: The information the project wishes to promote.

Media: The form in which the information is 'packaged'.

Pathway: The route through which information is disseminated to the intended recipients. The means by which stakeholders search for information and the means by which research projects make their products known.

1. Introduction

The project, uptake of Adaptive Learning for enhancement fisheries, is a project funded by the UK Department for International Development (DFID) through the Fisheries Management Science Programme (FMSP). This project contributes towards the overall aim of the FMSP (Livelihoods of poor people improved through sustainably enhanced production and productivity of land / water interface systems) as well as the objective (Benefits for poor people generated by application of new ***knowledge*** to fisheries management systems) through the refinement and promotion of the adaptive learning approach. The purpose of this project, as stated in the project logical framework (logframe), is to increase uptake by identified organisations and resource users of the adaptive learning approach, management tools and fisheries enhancement strategies most likely to support improved livelihood outcomes of the poor.

In a recent research demand assessment carried out by FSMP as part of their programme development, enhanced fisheries were seen as important areas for research by ***stakeholders*** in all geographical regions relevant to this proposal and in the South East Asian region as a whole (MRAG 2002a). A significant demand was expressed for the outputs of existing FMSP projects: “Adaptive learning approaches to fisheries management” (R7335) and “Potential yield of small reservoir fisheries in South Asia” (R5023).

Apart from demand from collaborating organisations, a large number of identified organisations have complimentary objectives. For example, guiding principles of Support to Regional Aquatic Resources Management’s (STREAM’s) mission statement include; a recognition that aquatic resource management will be both appropriate and sustained, if those whose livelihoods depend on aquatic resources are fully involved in the definition of objectives and policies; and dialogue and collaboration between stakeholders will increase awareness and skills for livelihoods support by and for, poor people (STREAM, 2001).

1.1 Background to the project

The project is a follow on from FMSP project R7335, which tested the Adaptive Learning approach in small waterbody community fisheries in southern Lao PDR and

seeks to test and refine the ***products*** developed in R7335 making them more applicable to a range of resource systems and institutional arrangements. (Final technical report and project products from R7335 available on-line at http://dialspace.dial.pipex.com/town/green/gov67). Refinement and increased applicability of the products from R7335 will be achieved by testing the existing products in three different resource systems. The project will test the adaptive learning approach through implementation of the approach using the existing adaptive learning guidelines, frameworks and methodologies in three different resource and institutional settings in India (two) and the Mekong Basin (one) thereby developing a better understanding of its current transferability and what refinements are required to increase its potential for transfer. In addition, the project will seek to incorporate knowledge relating to the approach that currently exists in the region.

In a report commissioned by the UK Overseas Development Administration (ODA), now the Department for International Development (DFID), in 1994, it was concluded that the products of research should be more actively ***disseminated*** to target institutions (Farrington *et al.* 1993). Additionally Woodfield (1998) states that dissemination needs to be a key part of a research project that should be conducted over and beyond the lifespan of the project. Despite this, a significant amount of dissemination in recent years has remained targeted at the scientific community in the form of academic papers in peer-reviewed journals (e.g. Myers *et al.* 1998, Felsing et al. 2000). It is in the light of this that recent research has shown that the development impact of outputs from natural resource management research is often low (Norrish, 2001; Gundel *et al.,* 2001). Reasons for this include poor involvement of intended users; a lack of understanding of the communication context (e.g. what ***information*** do stakeholders have access to, what are preferred means of ***communication***, what are appropriate ***media*** types), and insufficient appreciation of the real costs involved in producing and distributing appropriate materials. A well-developed communication strategy is therefore now seen as a vital component of any RNRRS research project and by developing a communication strategy the project will ensure that both existing knowledge and new information from pilot projects and elsewhere will reach stakeholders throughout the region in a way that it can be both utilised and adapted.

1.2 The communications strategy

Development of the communications strategy was informed primarily by the DFID guidelines on scaling up and communication (DFID-NRSP, 2002) and the draft communications strategy for the Natural Resources Systems Programme (NRSP) project (PD 124) Better options for integrated floodplain management (Mulhall *et al*. 2003). In DFID (2001), the communication strategy is described as the means through which effective scaling up of research products after the project ends can be achieved. The communications strategy is intended to raise awareness and communicate through an on-going dialogue the process and outputs of the project.

Because the project is concerned with uptake of the approach, the project communications strategy must be at the centre of the project and not simply an add-on. For this reason the development of the communications strategy has been one of the first activities undertaken in the project and is incorporated as one of the three outputs in the project logframe. It was intended that the strategy will continue to be developed and refined over the course of the project and it was continuously monitored, evaluated and, where necessary, adapted. It has been suggested that when it comes to disseminating the products from research projects, a suitable place to start is with an assessment of who the main stakeholders are and how they have been involved in the research and the promotion of the research products (Norrish, 2001). Such an assessment helped to identify the lines of communication so far established, who has participated so far, and with whom, gaps in communication, with whom research findings should be communicated and when findings should be communicated.

As part of the Adaptive Learning project (R7335) it had been necessary to identify ***target groups*** and their communications and to develop appropriate ways to communicate. This was essential to the Adaptive Learning approach because the whole approach is concerned with researchers, extension workers and resource users generating, sharing and utilizing knowledge with the resource users actively participating in determining the type of knowledge to be generated. Thus the approach could not be implemented as a transfer of technology but was a participatory process. This required close linkages to be developed between the stakeholders that had been identified as potentially affecting or being affected by implementation of the approach and the development of an effective information

exchange network that enabled information to move effectively between the groups. While it was felt that communication with target groups was very successful in R7335 using this network, communication with the ***Communication and Scaling-up (CSU) stakeholders***, including those who are able to create or influence change, to promote the approach and the products of the research was less so.

The CSU stakeholders from all three sub-groups will have to be identified and analysed with respect to their potential communication role and capacity. It is anticipated that some organisations will fit into more than one of the sub-groups (see Glossary). These CSUs include ***collaborators*** (MRC, CIFRI, DoF Agriculture West Bengal, India, WorldFish) but also other organisations that it would be useful to inform of project progress or involve in project activities. A number of these have already been identified and include; Regional policy bodies and donor agencies (e.g. Asian Development Bank, World Bank, FAO, DFID, SIDA, DANIDA), research organisations (e.g. AIT, Australian Mekong Centre, Stirling University, Imperial College) and regional networking and communication bodies (e.g. NACA, STREAM) from the first sub-group. These organisations work closely with those in the second sub group i.e. the implementing organisations (e.g. national government agencies, regional and national NGOs) and so those implementing agencies not already known about will be identified through them. Finally, some implementing agencies (e.g. RDC and MRC) have a training capacity but further organisations from the sub-group that have a training and capacity building remit will need to be identified. The products from this project and discussions about the approach will need to be promoted and developed with the CSU stakeholders and a crucial part of the strategy is, therefore to identify medias and processes for engaging, raising awareness and communicating project products to these stakeholders. The specific objectives of the communications strategy are discussed in the next section.

1.3 Communications objectives

The research call (FMSP, October 2002) identified the overall communications objective as promoting uptake of existing research products and more specifically determining the format and media project outputs should be in for each of the relevant stakeholder groups.

Within the project proposal and project logframe the communications strategy objectives included:

- Influencing policy by raising awareness of the approach and providing evidence of the usefulness of the approach in order to influence those who can create or facilitate change within an organisation towards adopting the approach for aquatic resources management.
- Creating awareness and interest in the approach amongst those organisations that can provide skills, knowledge and capacity building in key areas that are relevant to the approach and raising awareness of skills and expertise existing in the region for help in implementation of the approach.
- Collaborative learning through implementation of the adaptive learning approach. Facilitating resource users, extension workers, researchers and other relevant stakeholders to share knowledge and experiences at each of the pilot study sites. A crucial aspect of this is that information does not flow in only one direction but that information flows between and within each of the stakeholder groups.
- Learning within the project. Experiences at each of the pilot study sites will be fully documented and shared between collaborators.
- Learning from the experiences of other researchers, trainers and development practitioners;

What is crucial, given these objectives, is ensuring that the stakeholder groups can be effectively identified and engaged early in the project. Regarding the target stakeholders (i.e. those managing the resources), as mentioned, the adaptive learning process is concerned with the timely generation, sharing and utilization of knowledge in order to reduce uncertainties related to aquatic resources management leading to more appropriate and effective resource management. This includes the generation, sharing and utilization of ***new*** knowledge (aquiring information about the resource system through passive and active experimentation) as well as improving the access by this group to ***existing*** knowledge. A lot of uncertainty can come from not having access to information so that more efficient mechanisms for communicating in order to share information are likely to produce benefits all on their own.

In R7335 it was certainly found that villagers valued the opportunities to meet with others and exchange ideas and experiences. Even if generation of new information is required, creating it in a way that allows the simultaneous sharing of existing information is likely to substantially broaden the scope of what is being learnt. In order to do this within the adaptive learning approach an effective communications network has to be created by:

- Identifying target group stakeholders involved in, or affected by the management of resources in question, and characterise the types of knowledge and experience they have.
- Identifying current systems of information flow, where constraints lie and where new linkages should be made.
- Identifying the needs of the target groups to ensure that information shared would be relevant and provided in a media that would be most appropriate.
- Integrating these needs and linkages into the overall adaptive learning approach so that the target groups are encouraged to share and exchange their knowledge and practices and actively participate in defining the learning objectives.
- Ensuring that the process of sharing information is monitored, evaluated and adapted as necessary

More details of this can be found in Garaway and Arthur (2004). Essentially within the adaptive learning process there is a communications strategy that seeks to engage and communicate with the target groups and this will be documented Target groups, their needs and the ***pathways*** and media that will be used in communicating with them are described in Section 2.2.

2. Developing the communications strategy

Mulhall *et al.* (2003) explain that communications activities should be expected to evolve as the project progresses and this was certainly the case within this project. While planning at the start of a project can include an assessment of the communications context and the communications needs of stakeholders, project cycles are dynamic and the activities often have to be changed as a result. The process of implementing an Adaptive Learning approach in particular requires a great deal of flexibility because of the participatory and experimental nature of the process.

As learning occurs and new knowledge is generated, the process may be adapted and because of this the communications strategy may also have to be adjusted.

Mulhall *et al.* (2003) also suggest that there should be some form of mechanisms in place to ensure that communications activities can respond to new information about the context (e.g. about new and/or improved forms of media for communicating a message). Bearing this in mind, the stages that were identified in order to develop a communications strategy were:

- An assessment of products from the previous research project (R7335)
- Identify CSU and target group stakeholders and their levels of participation and develop initial contacts through introduction to the research.
- Initial assessment of the communication context (current information systems, media needs and knowledge of, and attitude towards, adaptive learning)
- Identify and understand the target group for communications
- Identify communication objectives
- Develop appropriate communications media
- Develop monitoring and evaluation mechanism for communications activities and outputs
- Modify communications media and activities as required

2.1 Assessment of Products from R7335

Among the products produced in project R7335, the guidelines on implementing the Adaptive Learning approach and on Community Fisheries, which together contain the main findings of the project, are those that are most relevant to this project. These guidelines have been produced to be easily disseminated to potential users of the approach, are easy to read, provide an understanding of the approach and aim to raise awareness. Currently both sets of the guidelines are hosted on the FMSP website (www.fmsp.org.uk) from which they can be downloaded and hard copies of the Community Fisheries guidelines (in English and Lao) are available from the RDC in Savannakhet. These guidelines have been disseminated within Southern Lao PDR by the RDC. As mentioned, the approach itself was positively received and there had been interest expressed by several organizations in South and Southeast Asia in implementing the approach.

Other outputs from R7335 included knowledge gained and recommendations that have been disseminated through the project Final Technical Report, peer reviewed journal articles, conference presentations, workshops with target groups, TV, radio and exhibits at government fairs. As with many natural resources projects, R7335 did not have a communications strategy for the promotion of products to CSU stakeholders. Some links had been made by the project team with some key organizations in Southeast Asia (including AIT, RDC, Department of Livestock and Fisheries, STREAM, World Vision, MRRF, Australian Mekong Centre) but no CSU stakeholder analysis had been conducted and in only a few cases was there an on-going dialogue about the process and outputs of the project. Links were closest with the Department of Livestock and Fisheries and the RDC in Lao PDR, who were collaborating in the implementation of the approach. In addition there was on-going dialogue with the MRRF/MRC given the synergies between the approaches used in the project and the programme. Communications activities were much more directed towards the target groups and this can be seen from the summary of communications activities for this project presented in Appendix 1.

The development of the project products, i.e. the guidelines, was based on assumptions about who might be interested in the approach and the media they would prefer. The project team produced all the materials and there was no systematic pre-testing of these products. While a flyer had been created would be used to raise awareness of the guidelines and their availability, with the guidelines sent on request, no mechanism to monitor responses to the flyer and whether and how the guidelines are used and where they have been distributed to was created.

2.2 Stakeholders and participation

Using the communications strategy guidelines (DFID-NRSP, 2002) CSU a preliminary assessment of CSU stakeholders that might be considered in the communications strategy and how they might be involved in the project were identified. Identification of stakeholders is a crucial first stage in the development of a communication strategy (Woodfield 1998). The stakeholders identified in the preliminary assessment included key stakeholders that were familiar from previous work in the region and from a search of the web for organizations with similar interests (Table 1).

Table 1 Results of preliminary assessment of potential CSU stakeholders and their communication needs.

Stakeholder	Involvement of stakeholder							
	A	B	C	D	E	F	G	H
CIFRI	Y	Y	Y	?	Y	Y		Y
MRC	Y	Y	Y	Y	Y	Y	Y	Y
WorldFish	Y	Y	?	Y	Y	Y		Y
MRAG	Y		Y	Y	Y	Y	Y	Y
DoA West Bengal	Y	Y	?					
STREAM			?	Y	Y			Y
RDC		?		Y	?		Y	
DFID India		?	?	?	?		?	
NACA			Y	Y	Y		Y	
FAO Asia			Y	Y	Y		Y	
Australian Mekong Centre				Y		?		
AIT			?	Y	Y		?	Y
ADB		?	?	?	?			
World Bank		?	?	?	?			
Stirling University			Y	Y				
Imperial College			Y	Y				
ODG (East Anglia)			Y	Y				
ACIAR			Y	Y				
ICAR		?	?	?				?
Massey University				Y	?		Y	

A = Implementing pilot study; B = Dissemination to target groups; C = Dissemination of technical findings; D = Dissemination of the approach; E = Discussing means of communication; F = Project design; G = Sharing experiences; H = Policy dialogue (promoting policy).

As a part of engaging these stakeholders, they (and others as they are identified) were asked about their possible role in the project and about their communications requirements.

As an additional activity, the background to the regional policy arena was reviewed in order to examine selected policies on inland fisheries to assess whether and how the project will fit into the policy arena. This review for selected organizations is summarised in Table 2 below.

Table 2 Initial review of the inland fisheries policy arena for selected regional organisations

Organisation	Evidence of inland fisheries policy	Project fit with existing policy
Worldfish Center	Mandated to contribute to food security and poverty eradication in developing countries. Organisation is working to improve policies for sustainable development of aquatic resources and strengthen the capacity of national programs to support sustainable development.[1]	Potential for synergies appears high.
Mekong River Commission	Mission is to promote and co-ordinate sustainable management and development of water and related resources for the countries' mutual benefit and the people's well-being by implementing strategic programmes and activities and providing scientific information and policy advice.[2]	Potential for synergies appears high.
Food and Agriculture Organisation of the United Nations (FAO)	Mandated to raise levels of nutrition and standards of living, to improve agricultural productivity, and to better the conditions of rural populations.[3]	Potential for synergies appears high.
STREAM	Aims to support organizations to utilize existing and emerging information more effectively in order to better understand poor people's livelihoods and enable poor people to exert greater influence over policies and processes that impact on their lives. Achieved by supporting the development of policies and processes of mediating institutions, and building capacity to identify aquatic resources management issues impacting on the livelihoods of poor people, monitor and evaluate different management approaches, extend information, and network within and between sectors and countries.[4]	Potential to include the approach and project outputs in STREAM products and promotion activities.
World Bank	Primary focus is on helping the poorest people and the poorest countries. Mission statement includes: To help people help themselves and their environment by providing resources, sharing knowledge, building capacity, and forging partnerships in the public and private sectors.[5]	Possibility for synergies but no previous contact with the organization
Asian Development Bank	ADB's overarching goal is to reduce poverty in Asia and the Pacific. In fisheries there are three basic objectives: sustainability (in conservation and utilization of fisheries and aquatic resources); equity (in balancing the interests of competing resource users); and efficiency (in the development and management of aquatic resources). A more holistic and precautionary approach will generally be adopted to fully consider the fishery-environment linkages.[6]	Possibility for synergies but no previous contact with the organization
Indian Council of Agricultural Research	Annual report indicates the organisation seeks to develop of agriculture at the national level through planning, promoting, conducting and coordinating research, education and extension and training on all aspects of agriculture for ensuring optimal utilization of land, water and plant and animal genetic resources.[7]	Potential for synergies

Network of Aquaculture Centres in Asia-Pacific (NACA)	The focus of NACA's Work Programme (2001-2005) is *Aquaculture for Rural Development.* This overall goal is supported by five key programs, including: capacity building through education and training, research and development cooperation, policy development and institutional support and information technology and communications.[8]	Potential for synergies appears high.
DFID country offices	The country office seeks to support country policies that provide pro-poor benefits, liaise with other donors and support research capacity in country.	Potential for synergies appears high

1. Source: WorldFish Center website (http://www.worldfishcenter.org) 2. Source: MRC website (http://www.mrcmekong.org) 3. Source: FAO website (http://www.fao.org) 4. Source: STREAM website (http://www.streaminitiative.org) 5. Source: World Bank website (http://www.worldbank.org) 6. Source: ADB website (http://www.adb.org) 7. Source: ICAR Annual Report 2002 8. Source: NACA website (http://www.enaca.org)

Where potential synergies were identified, communication would be developed in order to discuss how the activities and products of the project will fit into their policy agendas. This will require the development of an information sharing format and a system of information exchange.

In order to get a better picture of the stakeholders that should and/or could be involved in the project a further initial stakeholder analysis was conducted for this communications strategy with the project collaborators. This was carried out at a meeting of project collaborators in June 2003 (The meeting is described in more detail in MRAG 2003). The meeting was also an opportunity for the collaborators to meet and to discuss the project and research to be conducted at each pilot study site, the products from R7335 and to establish links. On the way to the collaborator meeting, the opportunity was also taken to discuss the project and develop initial contact through a face to face meeting with representatives of STREAM. At the collaborator meeting the communications strategy was discussed by the following:

- Central Inland Fisheries Research Institute (CIFRI), Barrackpore: Dr V.V. Sugunan (director), Dr Pradeep Katiha (senior scientist – economics) and Dr Utpal Bhaumik (senior scientist – extension).
- CIFRI, Bangalore: Dr D.S Krisna Rao (senior scientist – reservoir fisheries)
- Department of Agriculture for West Bengal, Calcutta: Dr Nirmal Saha (director - M&E) and Dr S.K. Bardhan Roy (senior scientist)
- Management of River and Reservoir Fisheries in the Mekong Basin (MRRF/MRC), Vientiane: Wolf Hartmann (programme coordinator)
- MRAG Ltd, London: Dr Caroline Garaway (social scientist) and Dr Robert Arthur (fisheries biologist)

Using a similar method to Mulhall *et al*. (2003), a first stage was for the group to identify who they considered were the relevant stakeholders. Following this the group went on to identify the importance and influence of each of the stakeholder groups that had been identified, classifying both influence and importance to the project aims as either high or low. This assessment identified the stakeholders that should be addressed. Further examination of some of the groups in more detail was necessary in some cases where the groups could be further divided into groups based on different communications needs. This is particularly the case for the target groups e.g. fishers (for example the MRRF/MRC work in several countries and the needs of fishers in each will be different).

As mentioned, the adaptive learning approach requires a stakeholder analysis as one of the initial stages in engaging stakeholders so this occurred as the approach is implemented (see Annex 2 of the Final Technical Report). Mulhall *et al*. (2003) make the important point that stakeholder analysis should not only be conducted at the start of the project but that there should also be a review of the roles, influence and importance of the different stakeholder groups during the project.

2.3 Initial Stakeholder Analysis: Results

The initial stakeholder analysis was conducted to identify stakeholders groups and assess both their importance and influence to the aim of the project (implementation, promotion and uptake of the adaptive learning approach). The stakeholders were grouped by the sub-group of CSU stakeholders (organizations to promote, implementing agencies and those with capacity building remit) and target groups. The three pilot studies where the approach is to be implemented meant that there were a large number of stakeholders identified. Stakeholders of high importance and low influence are considered as ‘additional’ stakeholders and those of low influence and low importance are listed in Appendix 2.

Because each pilot study was represented by only one organization, there was no opportunity to compare between organizations to assess whether or not opinion varies regarding the influence and importance of the stakeholder groups that had been identified. However, there will be opportunities to reassess stakeholder groups during the project.

Table 3 Summary of stakeholders identified as important and influential in the implementation, promotion and uptake of the adaptive learning approach.

Organisations to promote	
MRC	Links from grass roots to policy-making bodies in each country in the Mekong Basin (see also Table 2). The MRRF component has several years experience with developing similar participatory collaborative learning based approaches for the management of aquatic resources. Positive links exist between MRRF and MRAG concerning the development of these approaches. The organisation implementing the approach in the countries of the Mekong Basin
WorldFish	Links from grass roots to policy-making bodies in many countries around the world (see also Table 2). Experience in a wide range of resource systems and with community-based management initiatives. The organisation will be assisting with implementing the approach in West Bengal, India.
CIFRI	Indian inland fisheries research body who advise the state fisheries departments on management matters. Involved in development of inland fisheries and sustainable resource use.
Department of Agriculture, West Bengal	Organisation involved in developing production from rice-fish systems. Implementing the approach with WorldFish in West Bengal. Positive links already exist between the two organisations. Have a wide network from grass-roots to state government level.
Department of Fisheries, West Bengal	Involved with developing sustainable aquatic resource use in West Bengal and therefore an important group to involve. As with the Agriculture department, have a wide network from grass-roots to state government level.
STREAM	Becoming established in South and Southeast Asia as an organisation for supporting information exchange and disseminating information and lessons learned about aquaculture and aquatic resources management (see also Table 2).
Asian Institute of Technology (AIT)	The University Outreach programme has an important regional role in aquaculture and aquatic resources management. Have a wide network and high influence and importance in SE Asia.
Inland Fisheries Research and Development Institute, Cambodia (IFREDI)	Responsible of research on aquatic resources in Cambodia, the organization with whom MRRF collaborate in Cambodia. Mission is to promote sustainable development and sound use of living aquatic resources including the dissemination of scientific and technological information.
Living Aquatic Resources Research Centre, Lao PDR (LARReC)	Similar role to IFREDI but in Lao PDR, the organization with whom MRRF collaborate in Lao PDR.
Research Institute for Aquaculture 3, Vietnam (RIA 3)	Similar role to IFREDI and LARReC but in central Vietnam, the organization with whom MRRF collaborate in Vietnam.
Farmer/fisher cooperatives and committees	Target groups and end beneficiaries of the approach. Have the potential to influence state departments and others in 'bottom-up' fashion.
Implementing agencies	
National fisheries departments in Mekong Basin	Most important groups for sustainable use of aquatic resources in these countries. Potential to influence policy and policy makers.
Department of Agriculture, West Bengal	Potential to incorporate approach into current practices and to influence policy makers.
Village Panchayat (India)	Local government structure at the local level with elected representatives. Can affect the implementation of management actions at the local level as well as assist in inter-village communication and conflict resolution.
CIFRI	Will be implementing the approach (with state fisheries department) in Karnataka, India.
DFID country offices	Potential to incorporate approach into current practices and to through the offices influence national policy makers.
Capacity building	
AIT	Central theme in Aquatic resources and the Outreach programme has been capacity building of both individuals and institutions in Southeast Asia. Involved in both research and development in the region.

Southeast Asian Fisheries Development Centre (SEAFDEC)	Has training remit including locally based coastal fisheries management and inshore fisheries enhancement measures.
NACA	Involved in sustainable aquatic resource use including appropriate research involving local people (see also Table 2)
Regional Community Forestry Training Centre (RECOFTC)	Training in participatory resource management in Southeast Asia
IUCN The World Conservation Union	Involved in training and capacity building, including participatory methods
FAO	Involved worldwide in resource management and have training remit
Collaborators	In this project all will have a role in building capacity among the target groups as part of the process of implementing the approach.
Target groups (to be identified further)	
Fishers	Involved in harvesting the resources and end users of any management interventions. Little or no influence on policy makers.
Fisher groups/ management committees/ waterbody leasee	Crucial group of resource users. Probable level of co-management in the adaptive learning approach and therefore important groups to engage.
Extension agents	Extension workers (e.g. local government departments) are another key group whose help is essential in the implementation of the approach. Have an important role in mobilising and communicating with the resource users but traditionally little influence on policy decisions.
Additional stakeholders (high importance/low influence)	
FMSP	DFID research programme developing and disseminating tools and methods for improved management of aquatic resources.
MRAG	Organisation coordinating the Uptake of Adaptive Learning project. Has links with many international organisations
RDC (Lao PDR)	Has a capacity building capability within Lao PDR and the organisation collaborated in the testing of the Adaptive Learning approach.
Rice farmer	In rice-fish systems the farmer is an important target group but with little influence as decisions are made by farmers groups through which farmers are represented.

Interestingly, none of the collaborators considered national NGOs to be an important stakeholder group in any capacity. Additionally there were not as many regional organisations concerned with South Asia as Asia. This may be due in part to the national remit of those doing the assessments for India.

2.4 The communications context

Understanding the communications context is considered by both DFID-NRSP (2002) and Mulhall *et al.* (2003) to be an important part of a communication strategy. They describe the context as including the identification (for various stakeholder groups) of current knowledge about adaptive learning, available sources of information, preferred sources of information, communication needs and the enabling and constraining factors (e.g. support and capacity for making a short film).

Current knowledge at project start and available sources of information

At the start of the project the current levels of knowledge and awareness varied considerably between stakeholder groups. Efforts had been made during R7335 to promote the approach, with efforts concentrating within Southeast Asia on those CSU stakeholders likely to implement the approach. However this was not done in a systematic way. Opportunities were taken to promote the approach at conferences, both real and virtual, workshops and through the publication of guidelines that are available on the internet. A series of FMSP stakeholder workshops in Africa, South and Southeast Asia (e.g. MRAG 2002) also raised awareness of the approach and created some demand. However, knowledge of the approach remained relatively low and was localised for the most part in Lao PDR within the RDC and the target groups involved in R7335.

The main source of information about the adaptive learning approach remained the adaptive learning guidelines (Garaway and Arthur 2002) and these were only widely available on the FMSP website. As part of the project these guidelines were pre-tested and developed over the course of the project (see sections in the FTR relating to Output 3).

Available and preferred communications pathways

As different communications pathways are more appropriate to different stakeholder groups it is important to consider the types of pathway that might be used and their appropriateness to different groups. In order to do this, an assessment exercise was conducted with the collaborating organisations in order to identify pathways that are most appropriate, most easily understood and most likely to have the greatest impact for stakeholders groups operating at different scales (Table 4). This provides an initial assessment that was refined over the lifetime of the project as a wider range of stakeholder groups were contacted and asked for their opinion.

Table 4 Potential impact of different communications media on stakeholder groups.

Media	End users		Local organisations		National/regional organisations	
	MRC	India	MRC	India	MRC	India
Internet/email	Zero	Zero	Low	Low	High*	High*
National language	Country	State	Country	English		
English	Zero	Zero	Zero	Low	Zero/med	High
Exchange visit	High	High	High	Low	Low	Low
Technical paper	Low	Low	Low/med	Med	High	High
Policy brief**	Low	Low	Med	Med	High	High
Training	High	High	High	Med	Low/med	Low
One-to-one	Low	Low	Med	Med	High	High
Radio	High	High	Med	Med	Low	Low
Newspapers	Low	Low	Med	Med	High	High
Poster	High	High	High	High	High	High
Video screening	High	High	High	High	High?	High?

* While access may be high file size of attachments that can be handled is low
** In an accessible language

The results in Table 4 indicate a preference among end users for visual and practical communication such as exchange visits. Information should always be produced in the local language and, because of low levels of literacy, written outputs should be avoided. For national level stakeholders, similar pathways, both activity (except in India) and visual, appear to be the most appropriate although printed materials, in the most appropriate language, are more accessible to this group as literacy levels are likely to be higher. For national and regional stakeholders, written materials were considered to be the most appropriate and to potentially have the greatest impact. There was some discussion about visual communication, in particular the use of posters and video screening for this group and it was agreed that well designed posters and video screening sessions were also appropriate for this group and could be effective. Further assessments of the most promising pathways for each of the levels were also conducted in order to determine both the comparative advantage of each for the promotion and uptake of project products.

Current pathways used for communicating with existing CSU stakeholders.

A useful step in the development of the communication strategy is to assess the current communication and dissemination activities of the collaborators including the reach of these activities (i.e. the range of stakeholders currently communicated with). This will provide something of a base to build from in terms of communications within the project and with stakeholder groups. This was done using methods developed by

Dr Pat Norrish using a large table on the wall and individual sticky paper notes which were attached to the table. The currently used communication pathways for different categories of information to the various stakeholder groups for each of the collaborators are summarised in Tables 5 to 9 below.

Table 5 Types of information provided and the pathways for communicating employed by the MRRF/MRC to inform stakeholder groups (1 = CSU Policy makers; 2 = CSU Potential implementers; 3 = CSU Capacity building/facilitators; 4 = Target groups/end users).

Communication pathways	Type of information					
	General information	Current Activities	Technical findings	Policy recommendations	Meetings and workshops	Activities of other organisations
Face to face						
Lunchtime discussions						
One-to-one meetings		2,3,4				
Group meetings		4	4		4	
Workshops/ conferences		4	4			
Study tours or exchanges			4	2,3,4		
Electronic						
Website	1,2					
Database/ CD ROM						
Online listserv						
Video conference						
Real time net meeting					1,2	
E-mail						2,3,4
Telephone						
Print						
Conference Proceedings			1,2,3,4			
Project mail shot						
Journal article						
Newspaper article						
Technical report		4		1,2,3,4		
Other						

Table 6 Types of information provided and the pathways for communicating employed by MRAG to inform stakeholder groups (1 = CSU Policy makers; 2 = CSU Potential implementers; 3 = CSU Capacity building/facilitators; 4 = Target groups/end users).

Communication pathway	Type of information					
	General information	Current Activities	Technical findings	Policy recommendations	Meetings and workshops	Activities of other organisations
Face to face						
Lunchtime discussions						
One-to-one meetings		1,2,3				
Group meetings		1,2,3				
Workshops/ conferences			1,2,3			
Study tours or exchanges						
Electronic						
Website	1,2,3	1,2,3				
Database/ CD ROM						
Online listserv						
Video conference						
Real time net meeting						
E-mail		1,2,3			1,2,3	
Telephone						
Print						
Conference Proceedings						
Project mail shot		1,2,3	1,2,3			
Journal article						
Newspaper article						
Technical report			1,2,3			
Other						

Table 7 Types of information provided and the pathways for communicating employed by the Department of Agriculture of West Bengal to inform stakeholder groups (1 = CSU Policy makers; 2 = CSU Potential implementers; 3 = CSU Capacity building/facilitators; 4 = Target groups/end users).

Communication pathway	Type of information					
	General information	Current Activities	Technical findings	Policy recommendations	Meetings and workshops	Activities of other organisations
Face to face						
Lunchtime discussions						
One-to-one meetings						
Group meetings	4					
Workshops/ conferences					4	
Study tours or exchanges						
Electronic						
Website						
Database/ CD ROM						
Online listserv						
Video conference						
Real time net meeting						
E-mail						
Telephone						
Print						
Conference Proceedings				2,3,4		
Project mail shot						
Journal article						
Newspaper article						
Technical report						
Other				4		

Table 8 Types of information provided and the pathways for communicating employed by CIFRI to inform stakeholder groups (1 = CSU Policy makers; 2 = CSU Potential implementers; 3 = CSU Capacity building/facilitators; 4 = Target groups/end users).

Communication pathway	Type of information					
	General information	Current Activities	Technical findings	Policy recommendations	Meetings and workshops	Activities of other organisations
Face to face						
Lunchtime discussions			4	4		
One-to-one meetings						
Group meetings			4	4		
Workshops/ conferences			4	1,2,3,4		
Study tours or exchanges						
Electronic						
Website	1,2,3,4	4				
Database/ CD ROM						
Online listserv						
Video conference						
Real time net meeting					1,2	
E-mail					1,2,3,4	
Telephone					4	
Print						
Conference Proceedings	4					
Project mail shot					1,2,3,4	
Journal article						
Newspaper article						
Technical report		4	4			
Other						

Table 9 Types of information provided and the pathways for communicating employed by WorldFish to inform stakeholder groups (1 = CSU Policy makers; 2 = CSU Potential implementers; 3 = CSU Capacity building/facilitators; 4 = Target groups/end users).

Communication pathway	Type of information					
	General information	Current Activities	Technical findings	Policy recommendations	Meetings and workshops	Activities of other organisations
Face to face						
Lunchtime discussions	1,2			1		
One-to-one meetings	1,2	1,2,3		1		
Group meetings	1,2	1,2,3		1		
Workshops/ conferences		1,2		1		
Study tours or exchanges		2,3,4	2,3,4			
Electronic						
Website	1,2,3		1,2,3	1,2	2,3	
Database/ CD ROM	1,2,3		1,2,3			
Online listserv	1,2,3					
Video conference				1		1
Real time net meeting						
E-mail		2,3	2,3	1,2	2,3	1,2,3
Telephone		2,3				
Print						
Conference Proceedings			1,2	1,2,3		
Project mail shot		1,2,3				
Journal article			2	1		
Newspaper article		1,2,3,4				
Technical report						
Other (extension materials)		1,2,3	1,2,3	1,2,3		

Developing links with CSU stakeholders and strengthening collaborator communication

It can be seen from Tables 5 to 9 that collaborators varied in their use of pathway with some using a wide range of pathway to communicate with the different stakeholder groups and others only a few. Effective two way communication in the project is crucial if a learning network is to be established for the exchange of ideas and experiences throughout the project. This has also been identified by DFID-NRSP (2002) as a vital step for identifying options for uptake pathways and opportunities for scaling up ensuring sustainablility after the project has ended. The need has been recognised within the project and an initial assessment of preferred communication pathways for communicating with CSU stakeholders and between collaborators for

use in the project has been conducted. This initial assessment was conducted by the collaborators and the results are summarised in Table 10.

Table 10 Pathways by which the collaborators felt information should be communicated to CSU stakeholders during the project.

Communications pathway	Type of information					
	Detail about the approach and methodologies	Technical findings	Sharing experience across pilot studies	Current activities	About other relevant projects	Other information
Face to face						
Lunchtime discussion	1		2	3		2 (between collaborators)
One-to-one meetings	6	3	3	2	1	
Group meetings	5	5	8	6	3	Clarifications
Workshops/ conferences	6	7	7	3	3	Clarifications
Study tours/ exchange visits		4	7	1	3	Clarifications
Electronic						
Website	4	5	5	5	5	
Database on CD ROM	2	4				
Online database (listserv)	2	5	3	5	4	2 (between collaborators)
Video conference/ on-line net meeting	1		1			
E-mail	6	6	6	9	6	2 (between collaborators)
Telephone			1	1	1	
Print						
Project mailshot	4	5	5	3	2	
Newspaper article		2		1	2	
Journal article	2	6			3	
Conference proceedings	1	8	4		2	

Face to face meetings were considered to be an important way of presenting technical findings and sharing experiences across the pilot studies. They were

considered an important way of engaging with stakeholders and provided an ideal opportunity for two-way communication and networking. Because of this, opportunities that present themselves, for example at conferences and international workshops, would be used for collaborators to meet and discuss and to share findings and experiences with CSU stakeholders.

A website was considered the most appropriate way of presenting a wide range of information about the project and of getting results out to a wider audience. In a review of alternative pathways, Woodfield (1999) has indicated that this can be an immediate and convenient way to present information although access in developing countries may be more limited. It was felt that a very useful extension would be to create a kind of 'living' website to which collaborators' contributions (reports, suggestions, etc.) could be easily uploaded and with links to collaborator websites. Options for website hosting that were identified included a dedicated site or space on either the FMSP and MRAG sites, STREAM site and possibly the MRC site. While it was recognised that a dedicated project website would be the best option there were a number of issues associated with it. Foremost among these would be responsibility for design, hosting and updating of the site. There was also the question of how the site would be maintained after the life of the project. If a dedicated website could not be supported then it would be important to look at the other options. After considering the alternatives it was decided that creating a project website would be the best option as it would provide the most responsive and flexible option.

E-mail was identified as the most applicable and effective method for general contact between collaborators and with CSU stakeholders, particularly for sharing experiences (where face to face meeting is not possible) and for keeping everyone informed of current activities. It provides a rapid way of communicating that also allows messages to be archived. However, it was noted that in many countries access is patchy and for this reason attaching files over one megabyte in size should be avoided.

Printed materials, and in particular conference proceedings and peer reviewed journal articles were considered to be an appropriate way to communicate any technical findings from the project to CSU stakeholders. The project mailshot was also considered a useful way to communicate, although a preference was given to using it to communicate technical findings and sharing experience rather than providing regular updates on project activities.

It is important that the pathway are identified by purpose as it has been found (e.g. Woodfield 1999) that optimum communication is achieved by making use of a wide range of pathways and media in order to cover the range of user needs and users. However the information is communicated, it is crucial that attention is paid to the content to ensure that the message is clear and presented so that it may be understood.

Links with other projects/programmes/networks

In order to maximise the opportunities for scaling up liaison with and communication through existing networks and possibilities to interact with other projects and programmes (both within FMSP and DFID and outside) will be sought. As a first step, an assessment of the relevant networks and projects communications strategies will be undertaken. The initial assessment indicated that within the region STREAM and the WorldFish Community Based Fisheries Management (CBFM2) networks may prove to be useful communications pathways for raising awareness and influencing policy.

Communications strategy for the target groups

It has been recognised that actively involving target groups in research increases the potential to achieve research outputs that reflect their needs and priorities. Indeed, several authors including Pomeroy *et al*. (2001), van de Fliert and Braun (2002), Cornwall and Jewkes (1995) believe that resource users should be involved in decision making for resource management and Pomeroy *et al*. (2001) attribute the failure of some participatory management initiatives in the Philippines to a lack of problem recognition by stakeholders because management objectives were conceptualised away from the communities and without their participation. Much was learned in R7335 about identifying and engaging poorer resource users (target groups), identifying the means by which target groups can learn from project experiences, and from each other, and ensuring that research findings were both relevant and accessible to them.

In R7335, as part of the process of adaptive learning, a stakeholder analysis was conducted to determine those target group stakeholders that affected or were

affected by the management of the resources. The relative strengths and weaknesses of each group were assessed together with their potential importance to and influence on the process. For those groups that it was considered beneficial and practicable to include, the communications needs were assessed and groups engaged through appropriate pathways. The communications activities were subject to continuous monitoring and evaluation by all groups to ensure that they were effective. A similar approach was taken in this project and this, and the effectiveness of the methods, can be seen in Annex 3. With the target groups it was found that by far the best methods for communicating were visual and face-to-face methods, including workshops, training sessions and exchange visits, for communicating information about the approach, the findings, for sharing experiences and other information. For raising awareness amongst the target groups in the region it was found that more mass media methods such as newspaper articles, television and radio could be used providing they were in local languages, though these would be less effective than face-to-face methods.

As an example, looking at the target group in West Bengal we found that the group were characterised by fairly low levels of education and literacy (see Figure 1), indicating that written materials would be less likely to be effective and that any results had to be presented in fairly simplified ways.

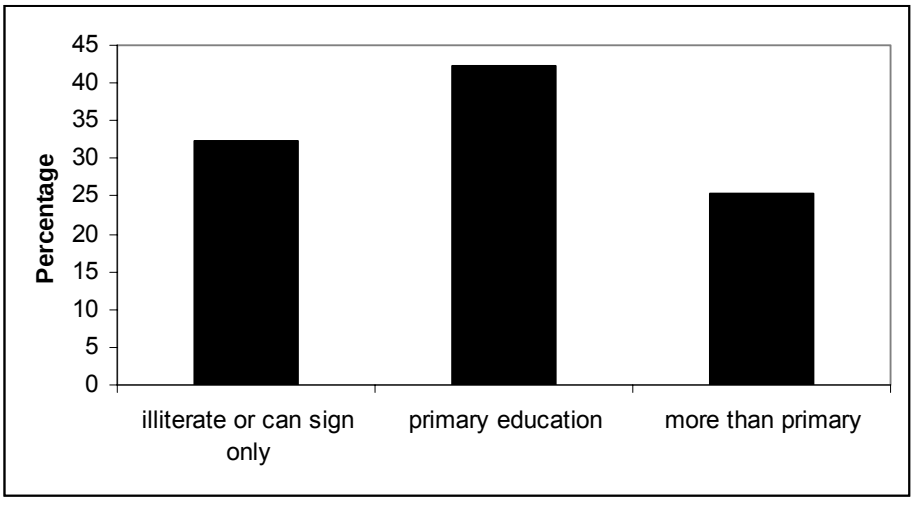

Figure 1 Results of a survey of the target group in West Bengal, India to establish levels of education and literacy and inform communications activities.

As well as having low levels of education and literacy it was also found that the most trusted sources of information amongst the group were face-to-face methods

involving trusted individuals such as family, friends and input suppliers (see Figure 2). Face-to-face interaction with Government officials was a less trusted source of information while traditional extension materials were found to have very little impact whatsoever. This fact meant that it was important to develop communications networks of farmers where the group could learn together and discuss the information that the project was providing so that it would be more likely to be accepted. This meant that workshops became an important forum for learning and that within the workshops it was vital to ensure that the target group were given the opportunity to contribute, comment and interact on the messages that were being provided. How this was done is detailed in reports such as MRAG (2004) and Bhaumik *et al.* 2005. The appropriateness of the workshops and their effectiveness in sharing information within West Bengal are considered in Arthur (2005).

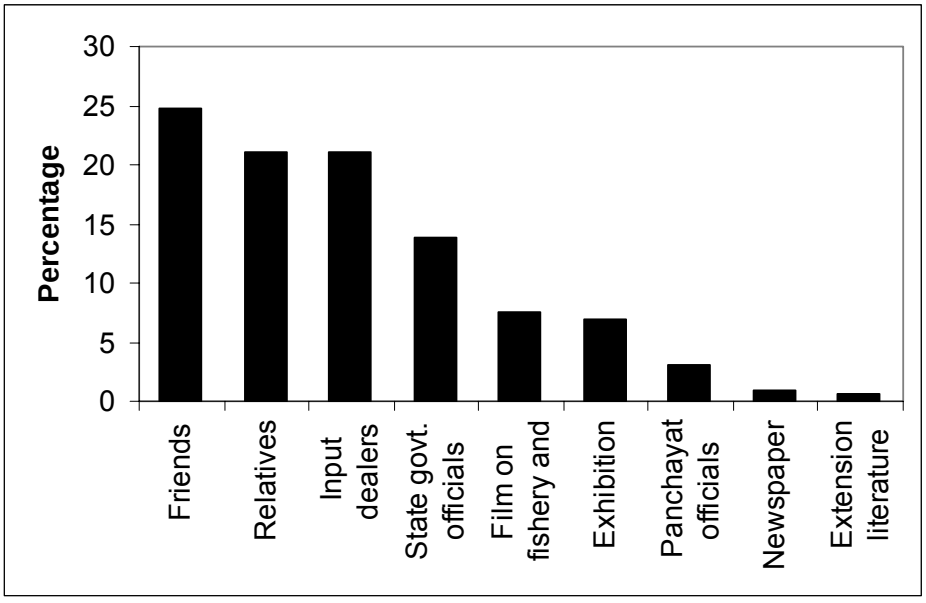

Figure 2 Main sources of information relating to the management of the resource system according to respondents in West Bengal, India.

3. Monitoring and evaluating the communications strategy

Monitoring and evaluation (M&E) is central to the adaptive learning approach, where there is constant monitoring and evaluation of both process and outcomes that inform the process and lead to real changes in order to increase the effectiveness of the approach (see Garaway and Arthur 2004 and Arthur 2005). Monitoring and

evaluating the communications strategy requires an extension of this process monitoring and this was developed alongside the process monitoring systems.

As with process monitoring, effective M&E needs to involve the target groups and CSU stakeholders in the process. Shordt (2000) and Menou (1993) have also stressed the importance of monitoring communications activities and the need to involve target groups in this monitoring. Table 11 provides a summary of the monitoring and evaluation activities that could be applied for the communications strategy (adapted from White and Best 2003). A crucial first step will be to identify the indicators and means by which changes can be measured. This will include for the dissemination, uptake, effectiveness and relevance of all communications activities and products. It is envisaged that the indicators for tracking changes will have been developed by mid-way through the project and subject to review after this.

Table 11 Possible Monitoring and Evaluation framework for the communications strategy

Project/product development activity	Focus of M&E	M&E Measures	Information used to:
Communications products developed and/or refined and introduced to stakeholders.	Project products Raising awareness Dissemination	Success in identifying and contacting stakeholders. Accessibility of the products, response of users (pre-testing).	Develop products and adapt communications strategy.
Collaborators implement approach using products to support activities.	Project products	How collaborators use and adapt the products, outcomes of implementation.	Develop products and adapt communications strategy.
Collaborators, target groups and other stakeholders share experiences.	Project products Raising awareness Dissemination	Responses of target groups, collaborators and other stakeholder, process of implementation.	Develop products and adapt communications strategy.
Products applied by users other than the collaborators.	Dissemination	How widely the products are received and how they are used.	Adapt communication strategy and develop exit strategy.

Within this section of the report the monitoring and evaluation measures (column 3 in Table 11 above) will be used as the means of structuring the evaluation. This can be broken down into the success in establishing a communications network with the CSU stakeholders (communications pathways and appropriate media) and secondly the extent to which the CSU stakeholders have taken up the messages and adopted the approach. The success in communicating with the target groups is dealt with separately as part of the process of implementing the approach (Output 2) and is reported in Arthur (2005).

3.1 Establishing an effective communications network.

This aspect with in two parts, firstly the development of appropriate media and pathways and secondly the extent to which the CSU stakeholders have been contacted and provided with materials on the adaptive learning approach.

Development of appropriate media and pathways.

As mentioned, at the start of the project the main source of information about the adaptive learning approach was the Adaptive Learning guidelines and these were available only on the FMSP website. An electronic and hard copy flyer had been produced and had been disseminated by both MRAG and RDC, but not widely. During the development of the communications strategy it had been decided that the project should make use of a wide variety of pathways types including face-to face, electronic and print (see Table 10). The effectiveness of the project in establishing these pathways to communicate with the CSU stakeholders have that had been identified can be seen in Table 12 below.

Table 12 Pathways and types of information communicated thus far during the project.

Communications pathway	***Type of information***				
	Detail about the approach and methodologies	Technical findings	Sharing experience across pilot studies	Current activities	About other relevant projects
Face to face					
Lunchtime discussion					
One-to-one meetings	Yes			Yes	Yes
Group meetings	Yes	Yes	Yes	Yes	Yes
Workshops/ conferences	Yes	Yes	Yes	Yes	Yes
Study tours/ exchange visits			Yes		
Electronic					
Website	Yes	Yes	Yes	Yes	Yes
Database on CD ROM					
Online discussion group	Yes				
Video/net conference					
E-mail	Yes	Yes	Yes	Yes	Yes
Telephone					
Print					
Project mailshot	Yes		Yes	Yes	
Newspaper article				Yes	
Journal article	Yes	Yes			
Conference proceedings	Yes	Yes			

Overall it can be seen that the pathways established reflected those decided upon and that the overall strategy is in line with the opinion that optimum communication is achieved by making use of a wide range of pathways and media in order to cover the range of user needs and users (e.g. Woodfield 1999).

It was recognised that an important part of communicating will be to develop communication between collaborators CSU stakeholders. It was felt this would be crucial if a learning network is to be established for the exchange of ideas and experiences throughout the project In order to facilitate this. The assessment suggested that face-to-face meetings were considered to be an important way of presenting technical findings and sharing experiences across the pilot studies. They were considered an important way of engaging with stakeholders and provided an ideal opportunity for two-way communication and networking as a result, every opportunity to engage in face-to-face meetings has been followed up and the opportunities afforded by conferences (such as the Asian Fisheries Forum and the Symposium on participatory approaches to reservoir fisheries management) and

other project workshops (for example the held by R8285) have been used as a means of raising awareness of the research outputs and messages and exchanging experiences. One-to-one meetings have been held with representatives of various organisations including the State government of West Bengal, Government of Lao PDR, Thai Fisheries Department, MRC, CG centres including WorldFish Center, CIFOR and CIAT, national research agencies including CIFRI, Indian Council for Agricultural Research (ICAR), LARReC, representatives from various Universities including Deakin University, AIT and Sydney University, donors including DFID and other DFID funded research projects (e.g. R8365, R8360 and R8285).

Electronic means for communicating have been an important means for raising awareness and disseminating the research messages and products over a wide geographical area and for establishing two-way communications with dispersed stakeholders. In each case it was found that the electronic means was all the more effective if face-to-face contact had been established first. Hence it was very important that the opportunities to put a human face on the adaptive learning project at meetings, conferences and workshops were taken. The electronic communications methods were centred around email and website, as determined at the outset of the strategy (Table 10).

Options for website hosting that had been identified included a dedicated site or alternatively trying to get some space on the FMSP, MRAG, STREAM, MekongInfo or possibly MRC sites. In the end, while it was recognised that a dedicated project website would involve issues such as design, hosting and updating of the site and maintenance beyond the life of the project, it did not seem possible to host the site in the form that was required elsewhere. The website was to perform two important functions. In the first place it was to make available the project products and secondly it was to be used as a resource centre where other materials, not widely available elsewhere, could be made available, links to useful websites established and a space for practitioners to discuss issues around adaptive co-management provided. Given these requirements it was found that the other options would provide neither the space nor flexibility required so it was decided to establish a dedicated project website.

The dedicated site has been established (https://www.adaptivelearning.info - See also Appendix 3) and materials have been made available on it and links established to and from other relevant websites. Because it has been possible to determine some

of the features of the site, discussion threads to which interested individuals can contribute have been included. It was hoped that this would facilitate some sort of discussion concerning the approach and allow participants to share their experiences however in practice there has been a reluctance to post messages on the website. The site was designed with monitoring and evaluation in mind and it allows the monitoring of access by recording the number of times the site is accessed and that each document is downloaded. At the time of writing there have been almost 10,000 hits on the website and the daily hit rate is around 50-60 hits per day. There are over 70 members of the site who are able to contribute to the message boards, 10 articles available to read, various downloads including the project briefs, guidelines in each language, project reports from both of the case study sites and over 120 links to other sites of interest including those covering adaptive management, participatory methods, international development and capacity building.

In addition to the dedicated project website, the adaptive learning guidelines are held on the FMSP website where they are available for downloading. Unfortunately, it has not been possible to gauge the effectiveness of this as the FMSP website does not currently allow statistics on access or the number of times that the guidelines have been downloaded. In order to raise awareness of the approach and promote these existing guidelines, the website managers of a number of relevant sites were approached to see if they would be prepared to host a link to the guidelines on their sites. Appendix 4 provides a summary of sites approached and where links have been created. Many of these, as well as a number of other sites also host links to the adaptive learning website as well.

One of the main pathways for communication that the project has been using is e-mail. Access to email in developing countries can be patchy and this has been recognised in that every attempt has been made to ensure that files produced for dissemination in this way are less than over one megabyte in size. Initially email was used for contacting stakeholders, for raising awareness about the project and approach and for providing information about current activities in the form of short, two-page project briefs (see Appendix 5). However it was clear that it would also be useful for these stakeholders to receive some background to the current project and information about the approach and the potential benefits of using the approach. In order to address this, a short, non-technical briefing paper was written and this was also sent out to a number of stakeholders (see Appendix 6).

Over the lifetime of the project the number of individuals and organisations on the project email mailing list grew from around 55 up to over 300 (dissemination by product and stakeholder type is shown in Table 13 below). During this time there has been only one case where an individual was contacted and where that person asked to be removed from the mailing list. In addition to efforts made by the project, details of the outputs and the website were included in an FMSP Programme level brief that was sent to 278 individuals and organisations. Other email based communication has included submissions to email listservs such as FishFolk, Food and Nutrition Security Community, PD Forum and KM for development highlighting the project achievements and products and providing a link to the website. Details of the approach have also been included in other electronic newsletters with a wide and relevant audience including MekongInfo, STREAM Media Monitor, id21, OneFish newsletter and Inforesources newsletter (see Appendix 7).

Table 13 Dissemination of communications products during the project lifespan.

Stakeholder group	Communications product					
	Background	Brief 1	Brief 2	Brief 3	Brief 4	Brief 5
Policy and donor	28	7	17	28	28	55
National implementing	37	10	31	37	37	40
Regional and international implementing	47	12	20	41	47	45
National research	11	3	9	11	11	14
Regional and international research	69	15	54	67	69	98
Promotion organisations	11	2	8	9	11	15
Capacity development	23	2	21	23	23	32
Consultants	16	4	13	13	16	25

Print was identified as a less important pathway at the outset but it has increased in importance over the lifetime of the project as it became clear that there are a number of key stakeholders for whom information in the form of peer-reviewed papers is very important and for whom the information provided in the current forms will achieve only a limited effect. During the project some peer reviewed papers were produced for Journals such as the STREAM Journal, Journal of the Sri Lankan Fisheries

Society and Aquatic Resources, Culture and Development and the Journal of Human Ecology (see Appendix 8). As well as the journal articles a short article outlining the implementation of the adaptive learning approach in Lao PDR and some of the benefits from the process was written and submitted to the peer reviewed CIP UPWARD 'Sourcebook on Participatory Research and Development' (see Appendix 9). This is a relatively non-technical sourcebook aimed at development practitioners that is available free on the internet as well as in hard copy. As well as these articles, contributions were also made to two FAO Fisheries Technical Papers that are due to be printed and widely distributed after the lifetime of the project.

In addition to the print articles that were aimed at researchers and development practitioners and designed to influence activities and policy there were attempts made to raise awareness amongst target groups in order to influence the adoption of recommendations from the bottom up. These were fewer in number but there were efforts made in West Bengal (see Appendix 10 for example). In addition to these products awareness raising media products including a flyer (Appendix 11) was developed and used at workshops. While not strictly print, funding was also provided for the transfer of messages on community fisheries in Lao PDR from video to the now more widely available VCD format for promotion amongst villages in southern Lao PDR.

During the project efforts have been made to identify additional CSU stakeholders who might be able to share experiences, have a capacity-building remit or might promote the approach. This was fairly successful and is reflected in the fact that the number of briefs sent out to individuals/organisations has risen from 55 for the first brief to 300 by the end.

Developing the media products, such as the guidelines, being promoted.

Obviously establishing the pathways is only part of the equation as the media products being channelled down the pathways have to reflect the needs and requirements of those receiving them. Development of media products was informed by discussions and input from the project communications advisor Dr Pat Norrish together with the needs expressed by the CSU stakeholders and the calls for feedback on the products being developed. The central product was the adaptive learning guidelines and a key issue that was identified early in the project was the need to ensure they were revised to reflect demand from the CSU stakeholders. The

existing guidelines were generally well received and successful in describing the approach and the context in which it would be of most use and are useful starting point for the development of a more refined product (see Annex 3 for a summary of the testing and refinement of these guidelines).

Because of the preferences of the national and regional stakeholders at whom the guidelines are aimed, it was decided to make the final guidelines available as both written materials and as a download from the project, STREAM and FMSP websites at the very least. In order to maximise the potential for the uptake of the approach the guidelines were translated into Bengali/Bangla, Khmer, Vietnamese and Lao languages by STREAM who also offered to produce hard copies that will be disseminated from the STREAM country hubs. Feedback on media products was requested within the project briefs (see Appendix 5), pre test forms, one-to-one discussions, emails and the website. All this influenced the design of the products. The only exception was in the case of the website. While it would be preferable to include pictures on the website and make it less text based, the security issues around the site and other aspects of the design mean that this was not possible.

3.2 Success in communicating with the CSU stakeholders.

Establishing the communications pathways and developing appropriate media is only one aspect of successful communication and it is important to consider how effective the efforts made have been in achieving uptake and in influencing policy and practice. Unfortunately in the case of the website, and indeed much of the email communication it is not possible to fully evaluate the extent of uptake because it is not possible to identify the final recipient. While a survey is planned as part of further FMSP impact assessment exercises, it is possible at this stage to examine the responses from some of the agencies and individuals contacted during the project. These are summarised for the different categories of CSU stakeholder in Table 14 below. This is by no means exhaustive as over 300 individuals and agencies have been receiving regular updates on the project and project activities and outputs and to detail all of the responses would be excessive.

Table 14 Examples of evidence of dialogue and uptake within key CSU stakeholder groups.

Stakeholder group	Examples	Promotion	Evidence of dialogue	Evidence of uptake/promotion
Organisations to promote				
	STREAM	One-to-one, email	meetings	STREAM website, STREAM Media monitor
	VSO	Email	Email	Inclusion of guidelines in resource library
	MekongInfo	Email	Email	Link, hosting guidelines, newsletter
	Inforesources	Email	Email	Newsletter (see Appendix 7)
	CBNRM Asia	Email	Email	Hosting materials on website
	EU DG Fisheries	Email	Email	Circulating materials within DG
Implementing agencies				
	WWF Mekong	Email, one-to-one	Meetings, email	Intention to incorporate into WWF activities
	DANIDA	Email	Email	Informing activities of SUFA in Vietnam
	Worldfish Center	Collaborator	Various	Informing WorldFish Center Challenge Programme activities
	ACIAR	Email, one-to-one, presentations	Various	Informing culture-based fisheries projects in Sri Lanka
	CIAT	Email, one-to-one	Email	Informing CG thinking on innovation systems
	Community Forestry International	Email	Email	Informing activities of the Community Forestry Alliance for Cambodia (CFAC)
	IFPRI	Email	Email	Informing the initiative on "institutional learning and change" in the CGIAR.
	IUCN	Email	Email	Circulated within the IUCN SSC Sustainable Use Specialist Group
Capacity building				
	AIT	Email, one-to-one	Email	Approach informing extension activities
	University of the Phillipines	Email	Email	Incorporate materials into teaching
	Stirling University	Email, one-to-	Email	Website used as a

		one		resource in distance learning.
	Plymouth University	Email	Email	Incorporate materials into teaching
	Graduate students	Various	Various	Informing the research of a number of students in Australia, EU, SE Asia, and Canada.
	FAO	Email, one-to-one	Email, discussions	Hosting materials and links

Around a half of those contacted have responded to the emails and of these, the majority indicated that they would be making use of the information and said that they would also forward it to others. This is an encouraging response as many people are busy and do not have the time to deal with essentially unsolicited mail. In ten cases, contact has led to exchanges of information regarding similar approaches.

In addition to the responses to emails, there has been encouraging use of the website with around 150 page hits per day and nearly 400 copies of the English edition of the revised guidelines having been downloaded so far. It is hoped that the efforts put into testing and refining these guidelines will increase the likelihood that they are utilised. A further means of communicating was through listservs and other existing communications networks in order to raise awareness of the approach and promote products. A good working relationship has been developed with STREAM and the project is being promoted through their website and in their regular Media Monitor bulletins. There were however few direct responses to postings on the listservs (fewer than ten from five postings), though it is difficult to tell how many recipients followed up with visits to the website. Likewise there has been no direct response from those receiving products from the other communications networks.

Conferences and workshops were useful fora for promoting the research messages and products and it was possible to use these opportunities not just to promote the outputs but also to share experiences. In a number of cases, e.g. the workshop held for project R8285, it was possible to include materials on a CD that was given out to participants. Similarly, materials in hard copy and as a CD were also presented to participants in the final workshop held in India (see Appendix 12 for the list of participants).

The communications strategy was successful in getting the research messages incorporated into training materials and used as a resource for those who are

thinking about learning and innovation systems as well as participatory resource management and co-management. It is hoped that over the next few years there will be increased evidence of some of the principles of adaptive learning, and the tools developed to support the implementation of these principles, being put into practice. Where the project communications activities have had the least success has been within DFID itself. There has been no measurable interest from the country offices in India or Southeast Asia who have been contacted and in some cases invited to be involved in project activities. Additionally, the Central Research Department has not been able to provide any evidence of uptake within DFID. Given the interest from other donor agencies including SIDA and DANIDA this is disappointing.

3.3 Exit strategy

The communications strategy was considered to have been successful in meeting many of the objectives and the exit strategy was therefore developed with two objectives in mind. The first was to provide continued access to the research messages and the second was to increase the awareness of the approach and the research messages amongst those who would continue to promote relevant messages – e.g. researchers.

The component of the exit strategy designed to provide continued access tried to ensure the messages and products from the project would be as widely available as possible. This component was developed over the lifetime of the project and within it, the placing of the revised guidelines and links to the guidelines on as many relevant websites as possible was considered a priority. A second priority was the creation of a living website that would provide a supporting resource and forum where practitioners could continue to discuss the approach and their experiences with it.

In terms of the second objective of the exit strategy, It became evident over the course of the project that there was an influential group of researchers who were not making use of the research messages – for example the guidelines were not being cited in cases where learning approaches and interdisciplinary methods were being reviewed and lessons drawn from experience. It was considered that this was because of two factors. The first was that there was some reluctance to cite non peer reviewed literature and secondly the information was being provided along, for this group, less effective pathways. To address this, a communications specialist with

considerable technical knowledge was engaged at the end of the project to make use of the project data sets and outputs in order to develop a number of products that would be targeted at this group. This will include two peer reviewed journal articles, a WorldFish Center technical report (to be promoted by WorldFish Center). Both of these are aimed at generating uptake of the research messages. Furthermore, two articles in periodicals that are circulated to this audience will be produced in order to highlight the achievements and raise awareness amongst this group.

4. Conclusions

In conclusion, it is felt that the communications strategy has been successfully implemented and, overall, has proved effective in raising awareness of the approach and promoting the messages to the CSU stakeholders. Increasing numbers of stakeholders have been identified and contacted and the response from these has been positive. It is hoped that this success will be build upon through an exit strategy that is aimed at providing continued widespread access to the project products combined with activities that will target particular stakeholder groups.

From the start of the project it was recognised that it order to reach the greatest number of stakeholders it was necessary to make the project messages available through a range of pathways. It is felt that the project has again been fairly successful in achieving this. While the emphasis has been on communicating through meetings, e-mail and the project briefs, efforts are ongoing to make sure that awareness is raised through short articles and peer reviewed papers. The website took time to organise but once up and running this seems to have been an effective means of reaching stakeholders.

5. References

Arthur, R.I., 2005 Evaluation of the Adaptive Learning Approach as applied in West Bengal, India 2003 – 2005. Report for project R8292, MRAG Ltd. London

Bhaumik, U., Pandit, P.K., Saha, S., Ghosh, T. and Arthur, R.I. 2005 Impact of Training and Workshops with farmers and State extension Officers: Report from the Uptake of Adaptive Learning project (R8292) on the sharing of information from the learning strategy.

Cornwall A. and R. Jewkes 1995. What is participatory research? Social Science and Medicine vol. 41 (12): 1667-1676

DFID-NRSP 2002. Scaling-up and communication: guidelines for enhancing the developmental impact of natural resources systems research. 8pp

Felsing, M., G. Haylor, A. Lawrence and P. Norrish 2000. Reaching rural poor: developing a strategy for the promotion and dissemination of participatory aquaculture research: a case study from Eastern India. Journal of Extension Systems 16 (June 2000): 82-106

Garaway, C.J. and R.I. Arthur 2002. Adaptive learning: lessons learned from southern Lao PDR. MRAG Ltd. London.

Garaway, C.J. and Arthur, R.I. 2004 Adaptive learning: a practical framework for implementing adaptive co-management. MRAG Ltd. London.

Gundel, S. J. Hancock and S. Anderson 2001. Scaling-up strategies for research in natural resources management: a comparative review. Natural Resources Institute (NRI), Chatham.

Menou, M.J. (ed.) 1993. *Measuring the impact of information on development*. IDRC, Ottawa, Canada.

MRAG 2002 Fisheries Management Science Programme: Programme Development visit to SE Asia, 12 January-4 February 2002: Trip Report. Report to FMSP, MRAG Ltd, London. Available at: http://www.fmsp.org.uk/

MRAG 2003. DFID R8292 Uptake of Adaptive Learning first collaborator project meeting. Kolkata 23rd – 24th June 2003. Report for R8292, MRAG Ltd., London

MRAG 2004 Summary Report of the village meetings to discuss and
agree a learning strategy for the rice-fish systems.Report for Project R8292, MRAG Ltd., London

Mulhall, A., A. Islam and M. Rahman 2003. Draft communications strategy for PD124: Integrated floodplain management in Bangladesh: uptake promotion. A report to NRSP, draft April 2003. Dhaka, Bangladesh: Centre for Natural Resources Studies (CNRS)

Myers, M., P. Norrish and C.L. Morgan 1998. A critique of current context, practice, processes and technology for dissemination of NR results. Report No. 52. Agricultural Extension and Rural Development Department (AERDD), Reading.

Norrish, P. 2001. PD93: Study of the impact of selected NRSP project communication activities and media products. Report to NRSP.

Pomeroy, R.S., B.M. Katon and I. Harkes 2001. Conditions affecting the success of fisheries co-management: lessons from Asia. Marine Policy 25: 197-208

STREAM 2001. Booklet promoting STREAM's objectives and Activities. STREAM, Bangkok, Thailand

van de Fliert, E and A.R. Braun 2002. Conceptualizing integrative, farmer participatory research for sustainable agriculture: from opportunities to impact. Agriculture and Human Values 19: 25-38

White, S. and J. Best 2003. Working Project Document produced for PD124: Integrated Floodplain Management in Bangladesh – Uptake Promotion. Experience from Project R7600. Project Working Document 1. Dhaka, Bangladesh: CNRS

Woodfield, J. 1999. Spreading the word: disseminating research findings. WEDC, Loughborough University. Available at: http://www.lboro.ac.uk/wedc/projects/stw/