RLEP

Rural Livelihoods Evaluation Partnership

Support for University Fisheries Education and Research (SUFER)

Fifth Output to Purpose Review
30th November to 14th December 2003

Rural Livelihoods Evaluation Partnership,
c/o BETS,
House 10, Road 135
Gulshan 1, Dhaka.
Tel: 9861531-2

M. Langworthy
A. Brooks
K.A. Toufique

Dhaka, 10 January 2004

Acknowledgement

The RLEP team wishes to thank the support provided by the SUFER project staff and partners, University Grants Commission, Universities and DFID-B staff during the review period. Appreciation is further extended to the many persons met outside the project, particularly villagers and local officials who gave up their time to provide valuable contributions and insights to how the project activities are impacting upon them. The ensuing discussions, recommendations and content of this document were considerably strengthened by these contributions.

SUFER Project address:

> SUFER, University Grant Commission
> Agargaon, Dhaka.
> Tel: 8124308   Fax: 8124309
> e-mail: zaman@ugc.org

RLEP has been established by the Department For International Development (DFID) to: i) manage the project review process for all its rural livelihood projects in Bangladesh, ii) develop a RLEP communications strategy, to identify and facilitate the improvement of systems for lesson-learning and provision of information to decision-makers, iii) facilitate improvements in project monitoring with particular focus on developing project teams' capacity in livelihood outcome monitoring and evaluation and, iv) build up national consultancy capacity.

The Rural Livelihoods Evaluation Partnership is represented by a consortium of three international and two national companies led by the UK based ITAD (Information Training and Development):-

Table of Contents

Executive Summary

Project Achievements

Since the time of the Mid Year Review (MYR) of May 2003, the project has continued to make contributions toward the project purpose:

> *Human resources, skills and knowledge for poverty-sensitive aquatic resource development strengthened through increased capability of universities interacting with sector agents to deliver quality graduates and development-linked research.*

The project has also successfully addressed most of the recommendations made in the 2003 MYR and the Output to Purpose Review (OPR) of November 2002. One recommendation that has not yet been successfully addressed is the development of an evaluation plan to assess project impacts. This review makes several recommendations on how to address this issue within the short time remaining in the project.

Curricula and Teaching Approaches

With respect to teaching, the project has provided useful training to teachers in course development. The training workshops addressed improving the structure and organization of course syllabi, improved lecture and presentation techniques, and access to current research and information relevant for the topics of the courses. Essentially all teachers in the fisheries and related departments received this training. There is strong consensus among the teachers of the usefulness of this training, and an independent assessment of teaching quality in classroom observations concluded that "the SUFER project has had a significant positive impact on teaching practice in all four of the five participating universities visited."[1]

The project has also been supporting efforts to introduce quality assessment surveys (QAS) into the fisheries departments. This effort has been incorporated into the larger efforts of the University Grants Commission (UGC) to assure teaching quality as part of their university accreditation strategy. The QAS is scheduled to be piloted in the fisheries departments, to eventually be incorporated in all faculties in all universities. In addition to surveys completed by teachers and students, there will also be surveys of graduated students and their employers, to assess the quality of university education on meeting employment needs.

Support to Research

In the area of research, many individuals in the fisheries faculties have awareness of livelihoods concepts, but most have not yet reached the point where this awareness has become an integral part of their research programs. The project has had to provide active support to direct research proposals toward

---

[1] E. Allison, Assessing the Impact of the SUFER Project on Teaching Quality in Fisheries and Aquaculture in Bangladeshi Universities, May 2003.

effectively incorporating livelihoods concepts. Integration of the social development dimension into developing technology based opportunities for poor people is incomplete. Interdisciplinary collaborative research has not been forthcoming spontaneously. However, recently the project has developed an innovation in the grant awarding process to address this problem. A series of interrelated pieces of research have been commissioned by the project to address a range of technical, economic, and social development issues related to developing the mollusk subsector. In this strategy, the awarding process itself generates the interdisciplinary collaboration, while individual researchers maintain control over the parts of the research within their respective disciplines. This set of research activities is still ongoing, and the final evaluation of the project should review the effectiveness and possible drawbacks of this grant awarding process.

The project has been quite successful in promoting collaboration between universities and NGOs. NGOs provide universities with contacts in communities, an organizational base to set up field-based research programs, and help to identify areas of research that can be directed to poor households and women. The universities can help to provide new technologies that NGOs can use in their programs. Because of the shared interests and complementarity of the capacities of the respective organizations, this collaboration has been quite successful and shows promise of continuing after the end of the project.

Promotion of collaboration with DOF has been more problematic. However, a recent workshop organized with help of the Fourth Fisheries Project (FFP), has provided DOF staff with exposure to the ongoing research activities in the universities, and there was apparently a strong interest shown on the part of the DOF participants. This exposure may lead to more contacts in the future.

Previous project reviews have recommended that the project should develop a communications strategy. The project has begun to formulate a strategy, and has undertaken several different communications activities. The communication strategy should more fully address the principles of a communication strategy described in the RLEP Review of Communication Strategies in the DFID Bangladesh Rural Livelihoods Programme.

Recommendations

With only six months left to run, the project must now shift focus to working to ensure that the teaching and research capacities that have been developed will sustain and further develop into the future and to promote the continuation of linkages across organizations within the sector. The following recommendations address this concern:

1. *Universities establish teaching mentors for incoming faculty.*
2. *Teachers of the SLA course act identify junior faculty that will be able to take over teaching the course in the future and mentor them on the course materials and teaching methods.*

3. *Universities organize seminar series on livelihood issues.*

4. *Commission studies on social development aspects of new technologies developed by project research.*

5. *Continue to provide training to teachers in writing of grant proposals and research papers.*

6. *Promote more active involvement social scientists in BFRF.*

7. *As a strategy to promote a more collaborative contacts among DoF and the universities, the project could develop tours for DoF staff to visit field sites of research being undertaken by university professors.*

To date, the project has not been successful in developing a comprehensive plan to evaluate project impacts. Therefore, in the remaining months, the project should commission a series of studies to assess project impacts and recommend strategies to sustain project achievements:

8. *Subsector analysis of dried fish markets in Bangladesh. **In addition to marketing issues, this study should address a number of social development questions.** Who will actually adopt new fish drying technologies? Will more vulnerable households be able to adopt or benefit from the technologies? Will women benefit from adoption of the technology? What promotion strategies or services will need to be provided to ensure that more vulnerable households and women will benefit? What role should NGOs play in promoting adoption of the technology?*

9. *Impact assessments of four to six fisheries technologies being researched with project support. **This assessment should also address the social development questions described in the preceding point**.*

10. *Sponsor an MSc thesis to address the effectiveness of university-NGO partnerships in determining and executing pro-poor research, using information from the project-sponsored research awards.*

11. *Evaluation of the impacts of communications activities undertaken by the project and as part of the exit process, target communications towards sector agents most likely to support university teachers post- EoP and those most likely to develop improved scaling up and delivery mechanisms*

12. *Through the well established networks promoted by SUFER divert part of technology promotion resources to identifying methods to introduce new pro-poor opportunities e.g. push-pull funding arrangements, Partnership Initiative Funds and other initiatives.*

13. *Assessment of the effectiveness of the commissioned research awards on the mollusc subsector as an effective strategy to integrate interdisciplinary research.*

Lessons Learned

The project has undergone a significant evolution in the grant awarding process, and many valuable lessons can be drawn from this experience about how funding mechanisms may influence the direction of applied research in Bangladesh. These lessons are of particular interest as DFID considers moving to a much more indirect strategy for investment in research and extension activities:

1. *When calls for proposals have specific requirements to address poverty or improve livelihoods, much work is needed to provide the applicants with the necessary background to be able to fully understand and address these requirements. Experience from SUFER shows that if research is to be outside of narrow disciplinary focus, the researchers need to be sensitized to the social, economic, and environmental issues that affect livelihoods. A research funding agency that includes a social development focus as a criterion should have the necessary resources and capacities to provide this kind of sensitization to potential applicants.*

2. *If research proposals are to have a social development focus, and if they are to be tied to promoting adoption of new techniques in the field, collaborative research proposals will be needed. The research funding agency needs to develop a strategy or funding mechanism to ensure that such interdisciplinary work is undertaken in a way that the social and technical components are effectively integrated.*

3. *Any external agency providing research funding to universities needs to develop a communications strategy for the research results, and must provide support to university researchers to formulate appropriate communications materials for different audiences.*

4. *University faculties are only engaged in research, and usually need institutional support to promote adoption of new technologies. SUFER has been quite successful in promoting linkages among universities and NGOs. Future funding can look to supporting these partnerships.*

5. *A larger lesson from the university NGO collaboration is that successful and sustained collaboration depends on a clear understanding of the interests of the various partners, and must be based on promoting shared interests, while at the same time understanding that the partners will also have different, possibly competing interests. The incentives for collaboration are based on the shared interests of the collaborating partners, and each must understand that the collaboration advances their own interests. The collaboration between universities and NGOs is an example.*

6. *A clear understanding of incentives and how incentives may be directed are also critical to fostering sustained institutional change. Improving teaching quality will only happen if teachers have incentives to improve their teaching. This will require changes in the way universities reward teachers' performance.*

7. *By their nature and mandates, NGOs are often more closely aware of the needs and problems faced by the poor, but they do not have the capacity to undertake more than adaptive research to find solutions to these needs. One funding strategy to consider in the future would be to channel research funds through NGOs. The NGOs could identify the research issue, and also participate in field trials and extension.*

Introduction

The SUFER (Support for Universities Fisheries Education and Research) was initiated in October 1999. As stated in the modified logframe after the 2000 Mid-Term Review, the project purpose is to "strengthen human resources, skills, and knowledge for poverty-sensitive aquatic resource development, through increased capability of universities interacting with sector agents to deliver quality graduates and development-linked research". The project is scheduled to end July 2004. Total project funding is £2.45 million. SUFER is located within the University Grants Commission (UGC) and is managed by a DFID-appointed Project-Coordinator. It works with five Universities, Dhaka University (DU), Khulna University (KU), Rajjshahi University (RU), Chittagong University (CU), and Bangladesh Agricultural University (BAU) in Mymensingh.

Previous project reviews, as well as changes in DFID programme orientations, have led to significant changes in the focus of project activities. The 2000 MTR concluded that the project was not making sufficient progress toward its objectives, identifying poor uptake, confusion among garget groups, and over-complicated procedures. The MTR recommended a number of structural and operational changes to improve project performance. The project logframe was modified at the time of the MTR. At the same time DFID introduced a commitment to a livelihoods based focus in its development program. While the original project logframe did not explicitly address this focus, the project was asked to orient activities to actively address livelihoods concerns.

The Output to Purpose Review (OPR) of November 2002, concluded that "the project had made useful gains since the substantial refocusing the MTR of September 2000, but "a sizeable distance still remains to successful outcome." Major recommendations of the 2002 OPR include:

- The project should plan an important role in sectoral knowledge coordination, in stimulating an active environment for competition, and in piloting and **validating** *(emphasis added)* innovations in commissioning work.

- Targeting towards poverty gender, equity, environment in research awards.

- Genuinely collaborative activities should become the norm in research.

- Identify potential network topics, set up workshops, and offer small initial incentives in response to proposals from active groups.

- Develop and implement a knowledge strategy.

The Mid-Year Review (MYR), conducted in May 2003 concluded that "the project has made substantial progress and appears to have had significant impact in terms of improving linkage and collaboration within the sector. The partnerships with NGOs are a notable success, but work is still required on links with government, research, training and extension services. Specific recommendations of the MYR include:

- The project should develop clear milestones related to its strategy for delivery to purpose. These should be expressed as expected outcomes rather than activities.

- Active steps should be taken to further strengthen socio-economic research related to fisheries and natural resource development and management.

- The dissemination strategy should be strengthened.

- A strategy for exploring and developing quality assurance of teaching within the university should be developed.

Terms of Reference

The terms of reference specify that this review should measure progress against some key recommendations made during the last Mid Year Review, assess likelihood of project's contributions towards its objectives in the remaining period, and document the process of change that has occurred in the project since the Output to Purpose Review of November 2002. The specific objectives of the review are as follows:

- Assess progress towards the PIMS markers set in the Project Memorandum and overall achievement of the project's objectives.

- Assess recommendations and progress made since the last OPR-02 and MYR-03.

- Determine the level of achievement of each project component as stated in the project logical framework and how this has impacted the goal of the project.

- Document and present key lessons learned to DFID, UGC, Universities and key partners.

The full terms of reference are given in Annexe 1.

Conduct of the Review

The review took place between 30 November and 11 December 2003. The review team had an initial debriefing meeting with DIFIDB staff (SUFER Project Officer, Rural Livelihoods Programme Advisors), field visits to Cox's Bazaar, Chittagong, Mymensingh to observe field research sites and interview researchers, visits to faculty of IMS at CU, DU zoology and aquaculture departments, BAU fisheries and agricultural economics departments, meetings with representatives from other collaborating institutions (FFP, NGOs, BARC, FAO Coastal Fisheries Project, AIT). A full list of persons interviewed is given in Annexe 2.

Project Design

To what extent is the goal of the SUFER project consistent with the Interim Poverty Reduction Strategy Paper (PRSP) of the Government of Bangladesh and the DFID's Country Assistance Plan (CAP) for 2003-2006? Table 1 compares the stated objectives of the two plans and the project. It is important to emphasize that SUFER is a sectoral project while PRSP is a strategy for poverty reduction in Bangladesh and CAP is the DFID-Bangladesh country strategy which is based on the PRSP. Also, PRSP and CAP are fairly new, formulated in 2003. SUFER was formulated at a time when development thinking was slowly shifting towards the direction now made explicit in the CAP and PRSP. For example, the word "equitably" managing the aquatic resources was added on to the original goal of SUFER which initially mentioned only of sustainability.

Table 1. Comparison of CAP, PRSP, and SUFER Objectives

CAP	PRSP	SUFER
1. Pro-Poor Growth 2. Human Development 3. Women's Advancement 4. Social Protection 5. Participatory Governance	1. A stronger business environment for job creation 2. Improved land transport 3. Reduced maternal mortality and improved access for women and girls to food, safe water and hygiene 4. Comprehensive national programmes for universal primary education and education for all 5. Effective demand by pro-poor groups for resources, services and realisation of rights 6. A public sector that is more accountable and responsive to the interests of poor women and men.	Sustainably and equitably manage and develop Bangladesh's aquatic resources

In most ways SUFER is not directly consistent with either PRSP or the CAP. This is also not expected. However, the focus on pro-poor growth that is explicit in both PRSP and the CAP makes a room for SUFER's contribution. Pro-poor growth requires growth in the first place and an assurance that the benefits of growth are shared by the poor and women.

More specifically, actions undertaken under the SUFER project address the following three priority areas identified in the CAP:

- CAP Priority: Support a strengthened enabling environment, which enables enterprises to create more and better jobs for the poor, especially women.

- o Project activities: support to research on developing technologies that can be adopted by poor households, increase employment opportunities for poor women and men, or provide higher quality fishing inputs to poor households.
- CAP Priority: Support more effective demands by pro-poor groups for resources, services and realisation of rights.
  - o Project Activities: support to research on developing technologies that utilize open access and common property resources that resource-poor that poor women and men are able to access.
- CAP Priority: Support action to make the public sector more accountable and responsive to the interests of poor women and men
  - o Project Activities: direction and support to university faculty to develop research projects which are more responsive to the interests of poor women and men.

By contributing to the development of the aquatic resource base SUFER can promote pro-poor growth. In fact, one of the targets of the PRSP is to reduce extreme poverty by half by the end of 2015. This requires growth of the gross domestic product by 7 per cent per annum. Most sub-sectors of the fisheries sector are growing at this rate or higher. This is particularly true for the aquaculture sub-sector (brackish and freshwater). The technologies developed by SUFER have the potential to promote growth. If their livelihoods objectives can also be ensured then it can also make growth pro-poor.

Project Achievements

Curricula and Teaching Approaches

One of the major thrusts of the project has been to "enhance the capability of university teachers to provide better quality student training through enhanced delivery and a changed syllabus that is more focused on the development needs of Bangladesh". [2]

The project has made strong progress in improving the quality of teaching in the fisheries departments of the participating universities. An assessment of teaching quality undertaken in April/May 2003 identified a number of improvements.[3] Most importantly, the teachers that have received teaching awards have developed a structure to the lectures in their courses and have developed course outlines which include clear statements of rationale course aims, course content and expected learning outcomes. The teachers have also developed improved teaching materials, increased participatory teaching methods, and have developed good rapport with the students. The teachers are now using more formalized means for obtaining student feedback on teaching quality. Practical field work has been revitalized, now including more opportunities for students to have contact with aquatic resource users, government officials, NGOs, and

---

[2] SUFER Progress Report, November 2003.

9

private sector agents with interests in fisheries.

The project has also introduced livelihoods concepts into the teaching curricula. Two SLA practical courses sponsored by the project have provided teachers with exposure to livelihoods issues, and in some cases has provided motivation for developing livelihoods-oriented research. Less clear is whether this training has lead to a broader introduction of livelihoods concepts throughout courses in the fisheries curricula (aside from the SLA course, described below). While many technical courses that focus on fish biology are not amenable to substantial integration of livelihood concepts, others, such as fisheries management, aquaculture, and ecology courses do offer scope to incorporate livelihoods concepts into their course contents.

In the past year, the project has sponsored a series of two workshops to develop a course in SLA concepts and methods. This course has been introduced into the fisheries curricula at four universities (CU, BAU, DU, KU). All fisheries students will now take this course. At least two teachers from each of the four universities participated in these workshops. The project is supporting the development of a web page that will provide teaching materials for this course.

In an effort to ensure that teaching quality is sustained in the future, the project has been working to institute the administration of quality assessment surveys (QAS) in the fisheries departments. The purpose of these surveys would be to provide feedback from students about the effectiveness with which teachers provided course materials to the students. In the meantime, the UGC, in an effort to establish procedures for accreditation of universities, has raised the idea of establishing a QAS system throughout the Bangladesh university system. Questionnaire forms have been developed in consultation with the universities. The questionnaires are to be filled out by the instructors themselves as a self-evaluation process and by the students in the class. An additional survey form will be developed for obtaining information from graduates and their employers about the relevance of the training they received in their jobs. The teacher and student surveys will be piloted in the fisheries departments

These QAS should provide useful in maintaining teaching quality both in the fisheries department and throughout the universities. Still to be addressed is how the information obtained from the surveys will be utilized in overall teacher evaluations, and what incentives teachers will have to ensure that they receive favorable assessments on their teaching. Institutionally, SUFER is not in a position to address these implementation issues. However, government of Bangladesh should be made aware of the need for institutional reforms within universities to provide teachers with real incentives to improve the quality of their teaching. DFID and other donors can actively advocate for such institutional reforms.

---

[3] E. Allison, Assessing the Impact of the SUFER Project on Teaching Quality in Fisheries and Aquaculture in Bangladeshi Universities, May 2003,

Support to Research

The project has done much to advance research capacities in the universities, and has sponsored research activities that appear likely to improve livelihoods of poor households in Bangladesh. The project has made strides in increasing the general awareness of university researchers about the importance of directing research to be more responsive to demands of poor fishermen and women, but project management has had to provide strong and active support to ensure that research proposals address these needs. There is a still a broad gap between general awareness of the social development issues in fisheries research and the capacity of researchers to meaningfully integrate these concepts into research design.

Both the 2002 OPR and the 2003 MYR included strong recommendations for the project to promote inter-disciplinary research, combining technical and social science components to deliver results that address poverty, gender inequalities, and distributional concerns. The project has worked to foster this collaboration, but has encountered significant obstacles. Academics are not institutionally committed to undertaking research directed to addressing problems of the poor, and have important institutional barriers to collaboration across disciplines. In response to these problems, the project has developed an innovation the award granting process, embodied in the research on promoting mollusc production and trade. The innovation has been to break the issue, which is inherently interdisciplinary, into separate, specific research topics, each of which has a disciplinary focus. With this strategy, the project has created a "mollusc research team", where each member has an individual research contract and responsibility for the research within his own discipline. Individuals thus have ownership over their own research, and the findings can be easily presented in journals of their respective disciplines. Under this strategy, however, the responsibility of integrating the results from the individual pieces rests with the project. The ultimate success of this strategy remains to be seen.

The project has been successful in moving researchers into field-based research. One implication is that research has become much more applied or adaptive, often testing techniques that have already been researched in other countries. While this change in the direction of faculty research supports the project and DFID goals, it should be noted that there are several important implications that the researchers must be aware of. First, what new knowledge will the research provide? Has previous research been undertaken in other locations with similar conditions? In what way will the experimental work add to existing knowledge? Second, how replicable are the results from a given experiment? Can the results be generalized to a wider range of environmental and social conditions? Also, researchers should be aware that they may face greater difficulties in getting results from adaptive research into respected academic journals.

The project has fostered advances in field-based, poverty-focussed research in an institutional environment that has not been conducive for such changes. First, the immediate client group was university teachers, who considered teaching is their primary objective. This is understandable when research activities are

seriously hindered by lack of funds and laboratory equipments. Second, and this partly follows from the previous factor, the teachers were not active in seeking competitive funds for research. While they were possibly aware of the existence of this market, they preferred to stay out of it for many reasons. Most of them were getting governments funds either channelled directly to them or through the UGC. Third, they were more comfortable with conducting laboratory based or field-station based research. This might have come from their training overseas and the nature of training. Fourth, they were not aware of the livelihoods approach and developed a lack of trust on demand-led value based participatory research. All these factors indicate that the SUFER project had to sell a research package that was not demanded by their immediate clients – the teachers. The SUFER project therefore had to first create a ground where it could work and this has been done very well by the project. This uphill task was done through persuasion, negotiation and networking skills of the project management team.

When this groundwork was done, research grants were awarded through a competitive grant scheme (CGS). Research proposals were awarded after ensuring that livelihoods issues are well incorporated in them. If they were missing, the proposals were often sent back to the applicant for revision. This generated a selection bias which was necessary for achieving the purpose of the project. This selection bias involved projects to be linked to livelihoods and social issues. Of course, some good research proposals were dropped on the basis of this criterion but this is the sole purpose of CGS - to effectively screen out those project proposals that do not serve the accepted purpose of the CGS system. The research projects must serve the purpose of the project and contribute towards the achievement of the project goals as formulated in the log frame.

However, this livelihoods screening process was essentially undertaken by the project management in their initial review of concept notes, before they were sent to external reviewers or the Project Management Committee (PMC). A more effective and institutionally sustainable strategy could have been adopted, first by including more social scientists in the PMC and second by extending the role of PMC beyond project approval. The PMC could have played an important role in the development of the final proposal.

The MYR of May 2003 explicitly recommended to include social scientists in the PMC but this recommendation has not been fully addressed in the estimation of this review team. Exclusion of social-science input also had its impact on monitoring progress of the research projects. The project managers from SUFER are well trained to monitor technological aspects of the project-supported research but have less capacity to assess social development dimensions. This weakness could have been addressed by having one project staff recruited from social sciences. This would have helped not only in influencing the teachers, increasing networking amongst the social scientists but also in the selection process of the research projects and the post-select monitoring of the progress of the research project in their social side. In actuality, the project has relied on the participation of NGOs on the PMC, but their capacity to adequately review and assess social science proposals or the needs for social science components in

technical research proposals may be questioned.

One problem with the SUFER project is that the technology it developed has not yet moved beyond demonstration stage. As a result it is not possible to evaluate these technologies with a livelihoods or social development lens. The social benefits or costs of the technology are therefore in the realm of speculation. There is a potential for reduction of poverty or improvement in the conditions of living of women and girls. The technologies are geared to either increase output, or improve the quality of output or lowering the costs of the inputs. As a result there has to be a chain of impacts that will have to transfer from the sphere of production to the sphere of distribution and beyond. At present it is not possible to conduct this analysis from existing research projects.

The project has been working to develop capacity to write research papers that may be published in national, regional, international journals. This effort is important for two reasons, first the peer review process will help to validate the quality of the research undertaken. Second, publications will help researchers to gain access to external funding. They will be able to demonstrate their research capacities and experience to potential funding agencies.

Internships of MSc students with NGOs appears to been an effective strategy to establish working relationships between universities and NGOs. These internships get students into the field and exposed to the livelihood conditions and challenges of fisher households and communities.

New Livelihood Options for Poor Coastal Communities

Initiated in November 2002 by the project management and DFID RL team, a new strategy refocused the activities in the project into three outcome areas. One of these addresses the livelihood options for poor coastal communities. The project has supported 18 awards of which 10 are designed to support the development of new areas of research i.e. surveys and studies but not necessarily directly impacting on the poor. The remaining 8 awards support technologies that do have potentially a direct impact towards developing livelihood options in poor coastal communities. More recently, these research areas were identified by the participatory livelihoods approaches introduced by the project indicating that the project has shifted to a more demand-led participatory research approach addressing the needs of poor, particularly women. All 8 technologies under development are designed along with NGOs to support women groups to produce fish in ponds, shrimp post larvae in cages (x2), fatten crabs, culture seaweed and mussels, process shrimp and alternative fish drying methods in solar driers.

Although large scale benefits for the poor are not immediately obvious (and not a project output) the potential realized could be substantial. The project has been very successful in linking NGOs to the researchers who are comfortable with this arrangement realizing that NGO staff can provide constant monitoring and support, experience with social issues, familiar with local circumstances and represent a possible mechanism for scaling up the technology. It is well known that NGO selection is important but worth a further mention as the project is

13

already experiencing differences between NGOs working on the same production systems but in different places. Other linkages to make this a success is with the private sector e.g. Jahalabad Fish Processing Company although the owner of the company lamented that his present involvement in sales of solar dried fish is "microscopic". His keenness to expand is very encouraging. Linkages to other projects ICZM, FAO Coastal Livelihoods Diversity project and ATDP all need to mature during the last phase of the project so that support for research and marketing opportunities (e.g. ATDP) may flourish post-SUFER.

Important livelihood issues affect this outcome area and pro-poor growth in commercial aquaculture. These are described in 'Response to Livelihoods Objectives' but reiterating the message is important. The research that supports this outcome has one clear output area; the teachers understand clearly their role in poverty focused research and a good number (varying degrees) are aware of complexities of intended beneficiaries' livelihoods and can use approaches to identify poor people in communities. They have gained experience in the delivery of field research, particularly valuable co-implementation with NGOs. However, what is not clear is, if this output and the topics researched will lead to the outcome of "Diversifying the livelihoods or poor coastal communities" even if the technologies were scaled up because the project has yet to fully identify and describe the true benefits to the poor – the missing social development dimension during the experimental trials and afterwards. This has been identified as a constraint throughout the last three consultancy inputs (Policy processes, J. Campbell 2003; Mid Year Review, J. Hambrey 2003 and; OPR 2002). The project argues that the first step was to prove the viability of the technology and thereafter during technology take-up conduct socio-economic impact studies. Due to time constraints this two stage process may not be possible except for an impact study after completion of research but before uptake of the technology is in the ascendancy.

Uptake of technologies through NGOs may be constrained by a lack of confidence in the results of some of the technical areas tested. Indeed often the problem with field based research is designing experimental trials that include enough replications of treatments to stand up to robust statistical testing. Comparisons may be made difficult when trials are held on multiple sites and fish stocked at different times across treatments. This review does not permit a full assessment of the research quality but there are some indications of research areas possibly requiring further investigation before scale-up/out or dissemination is considered. SUFER needs to identify means of accreditation for some of the research areas particularly those technologies that are considered for dissemination through the project communications strategy. The research papers may be published in international journals or independently reviewed to establish that the conclusions proffered are statistically beyond doubt. If not, then recommendations for this research area should reflect this i.e. 'research indicates that ....' or 'research proves that ......'.

The culture and processing technologies identified by SUFER and associate agencies can be managed by poor women. This is a significant achievement but

the products may be too profitable[4]! At first glance this may not make sense but communities live in a flux of control involving government officials, elites, *masthans*, moneylenders, politicians, police etc. which means a value-added product can be 'controlled' by these factions. It is therefore important for the project to encourage other sector agencies through its present linkages to study the social development issues arising from this with particular emphasis on status of the poor and women that were the initiators and intended beneficiaries of the technology. Post project evaluations are rare in DFID. A study to determine outcomes of poverty focused interventions one year after project closure would be a very valuable lesson learning exercise.

The review may not be too critical of applying a socio-economic lens to the technological research because the project's prime objective is to improve teaching capacity through development of pro-poor research and it is too much to expect the university teachers to make that quantum leap from laboratory based researchers to field based poverty focused research embracing all the principles of livelihood approaches including socio-economic impact analyses during and after the research trial experimentation. The project has made concerted efforts to link with social scientists in the university but there has been some reluctance to link and co-research on same projects. It has been traditional to route research through individual and narrowly focused specializations. However, the researchers need to be exposed to this kind of impact assessment because of its necessity before scaling up, or at least during the scaling up process. The complexities of developing technologies in these communities are highlighted in the case study described in Box 1. Good pro-poor targeting in coastal communities was observed (Figure 1.)

Figure 1. Typical housing of poor people targeted by the project in coastal communities

It is unfortunate that the project will not be able to capitalize fully on its steep learning curve during the last two years because the mussel group work represents a possible solution to determining complex livelihood dimensions during the same time as the technical trial. This is due to finish March 2004. The project should document in detail the lessons learned from this kind of group research approach.

---

[4] Dried fish sold to visiting diaspora at Tk20 per kg more than local product. Mussels intended for an export market. Seabass at Tk 20-40 per kg more than other commonly cultured species. Shrimp PL double in selling price by holding for 5 days and mud crab bought at Tk 10 kg are sold at Tk300 per kg 20 days later.

Box 1. Research on Fish Solar driers

The research award "Improvement of food quality of traditional marine dried products using low cost solar tunnel drier" investigated by Dr. M Kamal of Bangladesh Agricultural University represents a very good case study highlighting a range of issues relating to the development of pro-poor and pro-female technologies supported by the NGO and private sector agencies.

Figure 2. Low cost locally made solar drier

This demonstrates many positive developments attributed to the SUFER project; participatory livelihoods approach to identify research topics benefiting the poor, researchers enthused to work in the field, linkage with NGO and private sector, pro-female, low cost (adapted from high cost German-made fruit drier – see Figure 2) and environmentally sound technology. However, there are a number of issues and challenges to overcome.

The intention is to provide alternative, improved and new income generating activities to poor women. Ideally an expansion of the technology should result in more women deriving benefit from an additional IGA or alternative IGA (modification of existing practices). Both have implications upon a woman's labour requirement, social interaction, health and economic benefit. The inclusion of men in the group is often a necessity to undertake some of the tasks outside the community. This is more prevalent in conservative areas, particularly the SE Bangladesh coastal areas. Important questions need to be asked. Are the group members deriving equal benefits? Do the stakeholders fully understand gender equality and livelihood issues. Answers to these crucially important questions are unclear justifying the need to conduct a socio economic and livelihoods analysis. Information acquired during this review clearly indicates that further study is essential before commercial scaling up of the technology is considered.

The product will require other agency involvement for marketing. If an NGO is involved as the key sector agent to promote the new 'product' (in this case solar dried fish) what will be their boundaries and scope of involvement? Will they become wholesalers, middlemen, creditors, distributors or advisory bodies? And if so, to what extent will they be in conflict with traditional middlemen and money lenders? If the product is aimed at the luxury market where profit margins may be higher, how likely is it that commercial wealthier producers will squeeze the poorer small independent groups out of the new trade by force or capturing the market through better in-house marketing strategies which reduce transaction costs? In such circumstances the true impact upon the poor must be evaluated.

During the brief visit to the island site, Golpagati, it was evident that the technology does have potential, but experimentation may not completely determine economic efficiency of the system. The selling price may be higher and spoilage less but traditional producers who use pesticides still gain more fish weight through product adulteration (salt and sand, mainly) and the drying time was shorter at one site (allegedly due to improper use of solar drier – its performance may be site dependent). Also at this site, the owner claimed to produce 4 kgs from 10 kgs of fresh fish using traditional system whereas the solar dried production was 2-3 kgs from 10kgs of fresh fish. This does not make the traditional method a better technology but will impact upon adoption and slow down uptake. Thus, more work on the technology may be required before scaling up is advocated. The key lesson is that projects must be flexible in timing for extending new technologies, not bound by a timeframe.

There was also a lack of clarity on how women would truly benefit in the future and the seemingly business-like role of the NGO could be compromising benefit. Women labourers usually receive half the daily rate of male counterparts in this area, about Tk 40 per day. In this instance, the women were receiving Tk 80 per day and the lead member of the group, a male was receiving Tk. 90 per day. This was agreed by members. However the questions arise relating to the additional claimed Tk 20 per kg profit for solar dried fish. Who is getting this? The role of NGOs is extremely important here and a key lesson is to be sure that they do not become actively involved in the business marketing chain but instead provide optional credit, advice and livelihoods expertise to the researchers. The profit should go to group members so that they are merely paid day labourers. Removal of NGO such that the wholesaler buys the produce direct may not be that simple in this complex community of elites, middlemen, moneylenders etc. The vacuum filled may be worse. However, it is important to determine exactly what benefit the poor are receiving and not assume that the poorer segments will actually receive greater benefits because of a new alternative technology targeted towards them attracts a higher selling price.

In this case study i) women are provided with an alternative IGA not a new one, which will limit the overall impact on poverty reduction for a larger target population (if there are few new entrants to the trade) and ii) women do receive more income but only through a labouring capacity which was set externally through the NGO which means they, or another distributor could revert to the traditional half pay system at anytime – in which case the women are merely doing a different type of job which is likely to be much more beneficial to their health (pesticides are known carcinogens). It's important to clearly define the benefits for all stakeholders.

Pro Poor Growth in Commercial Aquaculture

There is a degree of overlap between this second outcome area and the first outcome area; 'diversifying livelihoods in poor coastal communities' because aquaculture is also featured in coastal community development. Therefore, this section focuses on research initiatives to develop mainly pond aquaculture. Of the 55 research awards 15 may be attributed to pond aquaculture.

The research has tangible links to commercial aquaculture development. SUFER's main focus is university capacity building which must be a prerequisite to driving commercial aquaculture. Companies would not commission university research until they become confident of their professional capacity to deliver. This will take time. Contrasting comparisons with universities in Western developed countries highlight this. SUFER has initiated this process of capacity building (the first stage) and therefore cannot be judge upon direct impact towards commercialization of aquaculture. However, and interestingly, the technologies (or opportunities) researched do suit poor people and at the same time could become scaled up into commercial operations. But, as mentioned, this carries the risk of poor people becoming marginalized (for this technology) when both share common property resources.

Cage Culture

Cage culture of grass carp at Narshindi was seen to be progressing very well operated by 20 families identified by the researcher using the selection tools learned in the livelihoods training. Unbeknown to the researcher and the project, another 10 cages were set up entirely independent of the project and the partner NGO, POPI. This is an example of early adopters beginning to take up these new culture practices and this is not an isolated case although it is still very limited. The group of three (father and two grown-up sons) invested in the 10 cages jointly from their own sources (income from rickshaw and two small hawker type shops). At a farmer rally attended by journalists, village chairman, businessmen (elites), other villagers and children, women opined over the Tannoy that this was a good technology for them. The rally is one of the many mechanisms used by the project to disseminate information and share experiences about new culture practices (perhaps only 'new' to Bangladesh).

A four day study on Cage Culture was done during August 2003 which this review is asked to comment on. The report makes important suggestions to developing networks with sector agencies encouraging SUFER to support 'aggressive' targeting by university teachers towards these agencies. In response to this, SUFER has arranged workshops and fora for the university teachers, other government departments, NGOs and private sector agencies which does provide a vehicle for driving the technology forward through the extension agencies. The report does not consider the quality of research or social development aspects attributed to these technologies and so use of the words 'aggressive targeting' warrant caution at this stage. However 'targeting' a communications approach is a valid point and should be taken forward understanding the needs of target stakeholders rather than a scatter-gun

approach. However a stakeholder analysis for communications may be too late for the project now. Detailed analysis was not possible in the short 4 day period allocated to the cages assessment but the technology assessment section of the report is well balanced in assessing the negative and positive aspects of cage culture but for the additional three technologies (PI collection, mud crab and seabass culture) included in the study the technological assessment was very minimal probably due to time constraints. It is unlikely the project learnt anything from information provided about these culture practices. Full technical and socio-economic appraisal of four very important production technologies which are most likely to be extended throughout the nation may have been a more useful study for the project. A technologist working with social development specialist could have evaluated the quality of the research and validity of results; the basic economics may be assessed and checked if done by the researcher and the social impacts may be reviewed to identify opportunities, threats, risks, pro-poor impact, access to poor and women etc.

Building Links with the Commercial Aquaculture Sector

Organizational and agency links are described in an earlier section of this report. This section refers to links to the commercial aquaculture through 14 research awards on production technologies, fry transportation and genetics studies with links to private hatcheries. SUFER has supported the formation of a genetics group which is testing cryo-preservation techniques so that in future hatcheries may be able to use fish sperm of the highest genetic purity and thus alleviate the suspected problems of inbreeding depression. Links have been made with DSAP, private hatcheries, FFP-GEF and BAU. The genetics groups based in Stirling University (AFGRSP) are also interested in funding research linked to this initiative. The project is trying to develop an accreditation and certification scheme by facilitating workshops between hatchery owners and scientists. This has also been presented at Fisheries Research Forum for discussion. It is recommended that the scheme is presented to Government from the university and facilitated by SUFER. It must be regarded as a university initiative. SUFER should raise the level of debate from university teachers through the research forum to lobby government over the issue of quality over quantity of seed. Seed from Government farms is negligible compared to the private sector. The role of DoF in this area requires reform.

The project is active in private sector involvement in seminars (even in cyclone shelters) and researcher's presentation events. Since the project is facilitating and funding these events it has some direction over the outcomes. Researchers should actively pursue intentions of private sector agents, farmers and NGOs by regular contact to understand reasons for no uptake. An understanding of the effectiveness of such events needs to be assessed. It is an area that SUFER may wish to pursue so that by the end of the project lessons learned may contribute to the wider understanding of uptake mechanisms and pathways.

'Embedding mechanisms of good practice' as stated in the ToR are only possible when all concerned, especially investors, believe and see its *good* practice. Perhaps a presentation is not sufficiently motivating and merely raises

awareness. There is an argument for developing a 'push-pull funding arrangement'. The "push-pull' strategy is to provide more direct incentives to get new technology widely adopted in the field. Researchers are given additional financial or other resources if their new technique is widely adopted by the private sector. These incentives are designed to ensure that research focuses on technologies that address problems of fishermen and that the research includes field assessments and promotion. In this scenario, the project and NGO co-invest in piloting the technology with success leading to further scaled up investment (more units) but disinvestment per unit. New technologies are applied when the investors are confident of success and this is often overcome by a core of well trained individuals managing many production cycles. This is the essence of Farmer Field Schools promoted by CARE. The 'push' element funds a limited expansion through extension agents (e.g. NGO's) focusing on promoting stakeholder confidence and the 'pull' element represents extension agent demand to scale up/out with increased agency (i.e. the NGO or private sector) investment per unit. The principle of developing participatory demand led technologies for beneficiaries remains paramount.

SUFER may consider an exit strategy that does not attempt to extend technologies through these workshops and seminars which to date do not seem to have had any real impact. In one case a university teacher reported that the NGOs were very interested and motivated but wanted money for the fish feed if they were to extend to their partner farmers the Pangash - silver carp polyculture system. Instead SUFER should seek to find workable and agreed uptake pathways and mechanisms through a series of participatory stakeholder seminars. The push and pull idea should be embraced. The project has been tremendously successful in building linkages between a number of institutions and so it should not be too difficult to bring the issue to the fore of debate.

The project has maintained a useful tripartite linkage involving Stirling University and BAU which will improve the BAU's chances of developing further programmes with Stirling. Presently, poor farmers are dependent on fry traders to deliver fry to them. Farmer's complaints focus on the poor quality of the fry, timing of delivery and species mix i.e. the resultant species assemblage in the pond may not be the best for their respective feeding ecologies. Through two Ph.D and one research award the university, supported by SUFER is attempting to solve this problem indirectly by encouraging the culture of self-replicating species thus decentralizing fish seed production. This is a long term goal which will not have measurable impacts on the poor.

Linkages & Partnerships

The purpose of the project went through some revisions to finally focus on linkages between the sector agents. The Project Memorandum (January 1998) stated the following purpose for the project;

> *Capability of the universities to deliver appropriate, relevant and poverty sensitive support to the sector increased*

This purpose could be achieved with or without sectoral linkages but the Mid Term Review (MTR, November 2000) made it explicit that this should be done mainly through developing sectoral links. This revision of the purpose of the project was accepted by DFIDB. Accordingly, the revised purpose of the project is now stated as follows;

> *to strengthen human resources, skills and knowledge for poverty-sensitive aquatic resource development by increasing the capacity of universities **interacting with sector agents** (emphasis added) to deliver quality graduates and development-linked research*

Since then SUFER focussed on establishing linkages with various sector agents almost across the board. However, OPR 2002 opined that the SUFER project had not been sufficiently pro-active in stimulating sectoral alliances. We would later see that the project has gone a long way in developing links with the sector agents since then. As a follow-up of the comments of OPR 2002, a discussion between the SUFER project and DFIDB resulted in identification of three outcome areas. One of the major outcome areas is university support to public and private sector linkage.

One of the impressive achievements SUFER has made so far lies in developing and nourishing links with the sector agents, particularly with the NGO sector. It is encouraging that SUFER did not take a narrow approach to developing only a private and public sector links. Such links are difficult to make in a short period because the benefits of newly developed technology are either potential or expected. They take time to be a proven technology. This proposed private-public link alone would not have served the immediate purpose of SUFER because the results of the research project were slowly coming in and were not comprehensively substantiated. It should be pointed out that the revised purpose of the SUFER project also implied capacity building beyond the university sector. The contribution of SUFER towards building capacities in institutions outside the university network has remained negligible. This is understandable because such an attempt would involve strong financial implications and possibly would have required drastic reorientation of the management structure of the SUFER. Thus the SUFER project harnessed the benefits from whatever potential links that could be developed during the course of the project. Linkages are not always easy to develop. This is particularly true if these linkages are forged with multiple actors with multiple objectives. More often than not there is conflict of interests. The SUFER project has to overcome these obstacles.

The hub of the linkages in the SUFER project has always been the university. This linkage is established with various agents and actors and for pursuing a wide range of SUFER objectives. Some linkages are formal and have taken a well-defined institutional setup while others are informal and emerging. We can trace the following set of links:

- The university system
  Between departments within a university (intra-university linkage)
  Between the departments across the universities (inter-university linkage)
- The NGO sector
- The private sector
- International Institutions
- National Research Institutes
- Government
- Donor Funded Projects
- Fisheries Research Forum

The nature and content of each of these linkages are described in more detail in the following sections.

The University System

The SUFER project has so far awarded 55 research grants amongst the teachers of the five universities (DU, BAU, CU, KU, and RU). Of them, seven are collaborations between various departments within a university. There are three collaborations between marketing and sociology departments in CU, two between marketing and management departments with the BAU and two between Fisheries and Marine resource and urban planning departments of the KU.

An equal number of research collaborations have been established between the departments across the universities. In Fish Genetics there are three research collaborations between BAU and KU. In Fish Nutrition there are two collaborations between BAU, DU and KU. Finally, there are three collaborations between CU, BAU and KU in mollusc fishery.

Before the SUFER project interactions between the universities have been based mainly on teaching and less on research. The teacher of one university would visit another university either as an external examiner or a member of some teaching committee. These were required by university rules. The SUFER project made a good attempt to change this pattern. The teachers are now interacting not only with their colleagues working in other departments but also in other universities mainly for research purposes. About a quarter of research grants involved collaborations within the university sector. In a large number of cases the collaboration was initiated by the SUFER management. The applicants applied individually but SUFER intervened to make it a collaborative research based on the merit of the proposals.

The NGO sector

The NGO sector in Bangladesh is large and growing in number and diversity. There is a wide variety of NGOs specialising in various development issues. Historically they were not much involved with the fisheries sector but from the late 1980s they slowly started to participate in the development of this sector. Some of these NGOs are well-reputed within and outside the country. For example, CARITAS, COAST, CODEC, CNRS and so on have a very good track record in the fisheries sector. They are also linked with donor and government

projects in various capacities. NGO involvement in OLP1 and OLP 2 is well known. They are also involved in CBFM2 and the FFP. Some NGOs have intervened in the technology development markets such as the ITDG (Integrated Technology Development Group). Thus over time these specialised NGOs have developed enough skill and entrepreneurship relevant to the growth of the fisheries sector. Their client base varies and these clients are also involved in other activities such as in crop-production or in livestock development. The important point here is that the NGO clients are generally poor and hence the NGOs have better information about the needs of the poor and the marginalised. Women get particular attention amongst the NGOs. From the perspective of the SUFER project, the have NGOs provided a social development window for pursuing uptake activities, identification of researchable topics that would be of immediate benefits to the poor and women and make research more participatory at its logical stages (identification, application, trials and evaluation). Most NGOs do not have access to R&D funds for developing technologies beneficial to the poor. SUFER collaboration with the NGOs provided this missing link. The NGOs and SUFER had common interests for developing partnerships.

SUFER exploited the opportunities opened up from collaboration with the NGO sector. The collaboration is done through two avenues: joint research, and internship of the MSc students. Thus these projects not only take the teachers but also the students from the confines of the laboratory to the real world of technological challenges. At present there are 15 NGOs involved in research and 11 MSc. interns. In most cases, however, the direction of collaboration was from the researchers to the NGO (11 such cases). In these cases either the researchers paired up with the NGOs or SUFER brought them together on the same platform. SUFER here played a match-making role similar to those we observed in the case of collaborative research undertaken within the university sector.

It is early to make any judgement about outcome of the collaboration in concrete terms. In most cases research has not been completed. Livelihoods outcomes of these efforts have not yet been assessed. There are also further linkages developed by the NGOs that remain undocumented. For example, CARITAS required research for carrying out their SEMP project. SEMP is a UNDP funded project implemented by the Bangladesh government. CARITAS used SUFER funds to conduct the research and made SEMP and SUFER funds complementary to each other. SUFER should explore these unintended but useful complementarities developed by innovative NGOs and document them.

The private sector

The private sector is involved with SUFER in a very limited way. This is mainly attributed to premature stage of many research projects which are potentially very profitable. However, in the research design stage some private sector collaboration did occur. Hatchery facilities were used by the researchers for conducting research on improving seed quality. This exposed the potential benefits of technology to the private sector. This link is also exposing the researcher to the needs of the private sector. Once benefits from new technology

are clearly demonstrated uptake activities by the private sector are likely to be expected. Most of the uptake responsibilities are taken up by the NGO collaboration. For example, COAST, with the help of SUFER, has established marketing link with a private sector seller of (solar) dried fish. This private seller is making an attempt to export the dried fish to the expatriate Bangladeshis living abroad. Opportunities for other marketing channels are also explored by the relevant NGO. Mud-crab fattening and pl nursing has also attracted some private buyers of the technology products but uptake has been rather limited. Ponds of the farmers are used for experimental purposes (trials). The SUFER project can potentially develop a link with the private sector if they could identify unexploited natural resources (mollusc culture) and provide some quality assurance for inputs and outputs (could be an exportable such as shrimp or crabs). It is understandable that the link between the university and the project cannot be developed overnight. Technology adoption is generally a slow process because of risk aversion attitude of the early adopters.

International Institutions

Collaboration with international institutions has been rather limited. The main collaboration took place between the AIT and SUFER. AIT arranged for 6 three weeks syllabus strengthening workshops for the SUFER award holders. They also provided training on proposal, scientific paper and report writing skills. There was collaboration between the Stirling University and ITDG, NRI and CU, BAU and ICL, FRI (Vietnam) and the NGO COAST and USM. In these ventures the award holders played a key role in establishing and maintaining the collaborations.

National Research Institutes

Collaboration with BFRI has been limited. This is explained in part by the fact that BFRI has not historically been actively engaged in research with universities. In fact, this is not surprising, given that BFRI and the universities are competitors for research funds. Furthermore, BFRI receives funding for research through government channels that the universities perceive that they do not have access to. Outside of SUFER, government and other sources of funding do not provide incentives for collaboration across institutions. Within SUFER, institutional collaboration between the universities and BFRI has been very limited; there is only one collaboration involving the BFRI and the BAU.

Government

The government has a mandate to provide extension services in the fisheries sector, and to regulate fisheries activities in the country. In principle, there should be strong linkages between university fisheries researchers and the DOF. However, the project has been able to achieve only limited engagement with DOF. This has not been due to a lack of effort from the project side. Recently there has been an increased interest from DOF about the university research activities. SUFER arranged a workshop at DOF on 1 October 2003. The workshop was well attended and well received. SUFER has taken the NGO route

because its immediate objectives were well-served by the NGOs. In this context SUFER has to win the hearts and minds of the people in the government sector. One option would be to establish the usefulness of the technology developed by the SUFER project. Such technology may involve pl nursing in cages or application of the research on cryopreservation of fish sperm. They can also show their potential in various quality assurance schemes. It is high time for SUFER to impress DOF about the achievement of the project.

Donor Funded Projects

Linkages with other donor projects have been impressive and the project should be congratulated on making in-roads to developing the teacher's capacity to continue research work with other donor projects and their associated institutions. The links fall into four broad areas of research identification and co-research, technology transfer (workshops and forums), product marketing and project decision making. The most exciting areas of collaboration which the project must nurture as part of its exit strategy are the linkages with FAO/UNDP, ICZM, DSAP, MACH, Shrimp Foundation and CBFM-2, which potentially offer opportunity for the researchers to continue with poverty focused field research thus sustaining SUFER's capacity building work. ICZM could provide research grants to six teachers at IMS, CU presently involved with coastal research. The FAO project based in Cox's Bazaar has possibilities to fund the teachers through a $700k grant it is about to receive. The Shrimp Foundation is able to source funding in areas of its own developmental interest. Links with CBFM-2 led to two research awards supported by the project and contributing to their poverty focused objectives. DANIDA and DSAP support the research forum and offer steering role through the SUFER project management committee especially in evaluation of awards. There are further possibilities that DSAP can support research for some of the most improved teachers now known to the project and indeed other agencies seeking to support research. SUFER has done an excellent job of bringing the teachers to the donor funded projects, raising their department's profile and potentially attracting future research funding.

The project is working with ATDP to provide a marketing outlet for dried fish from the solar driers and engaged BADS (evolved from CARE CAGES project) to help design cages for the cage culture research awards. Latterly, FFP invited the SUFER supported researchers to present their findings to DoF which could result in valuable spin-offs as DoF is the lead government extension agency for fisheries and aquaculture. FTEP-2 also located in DoF provided extension guides, manuals etc as reference material for the teachers. SUFER has also maintained links with a donor funded project outside Bangladesh namely, the DFID funded AGFIRP based in Stirling University which supports SUFER funded genetics projects.

SUFER ought to target its attention towards those projects that are most likely to support the teachers over at least the next two years. The project management of these other donor agencies must be aware of the potential of these university teachers and their areas of specialization.

<u>Fisheries Research Forum</u>

The Bangladesh Fisheries Research Forum (BRFB) has been organized with project support. The mandate of this forum is to provide an organizational structure in which a wide range of institutions working in the fisheries sector can identify and prioritize strategic fisheries research issues. The forum is now operational, having had three forum meetings. The inaugural meeting was held in November 2002. Two subsequent meetings were very well attended. The World Fish Centre has agreed to provide communications support for the Forum. At present, the interests of poor fishermen and women are now represented in this forum through the NGOs. The team recommends that the project actively promote a broader social science representation in this body. The forum is now active, with high participation at the meetings that have so far been held. Participants have had to pay for their own expenses to attend. and a broad expression of interest in continued participation from universities, the current secretary, from BARC, but it is not clear whether the forum can maintain momentum without clear access to funds for research.

Response to Livelihood Objectives

The project has been tasked to engage professionals whom have been totally immersed in their technological research and associated *modus operandi* all their working careers, so that they become conversant or at least aware of the social and contextual analysis of livelihoods, poverty and gender in rural poor communities. This is close to a paradigm shift in thinking for them and the response will be mixed especially given such a heterogenous trainee group. However, generally for those participating teachers attending livelihoods analyses courses and workshops (Sustainable Livelihoods Approach - SLA), and participatory research workshops conducted by international consultancy teams there is evidence to suggest that the teachers do have a good understanding of these issues but it is unlikely that in all cases this will be sustained, simply due to lack of interest and exposure to the work.

In the broadest terms, the programme involved selection of poor villages by means of cross project interaction, determination of socio-economic profiles, livelihood analysis and identification of poor groups and individuals. Gender and access issues were included as a special component of the programme.

The best evidence of the success of this training is borne out in the type of proposal topics, their purpose and descriptions of the research. The OPR 2002 requested that the proposal process i.e. concept notes and application forms be modified to accommodate more of the gender and livelihood related issues. This was not done to avoid confusion for the teachers who had taken quite some time during the first two years to understand how to complete the forms. However, as mentioned, the research became much more livelihoods-oriented in approach and intentioned towards poor women but not developed to the extent that livelihoods monitoring (including indicators) was part of the technological research work. This may be too much to expect but at the research proposal stage, applications for research awards should provide sufficient evidence that

these issues are to be addressed and how they may be measured. Evaluation of the proposals was peer reviewed by technical experts only, not by a social development / livelihoods experts. Such expertise should have been recruited into the project or at least engaged for the proposal reviewing.

The key lesson here is that university teachers respond well to high quality training by international consultants focused on livelihoods and gender related issues conducted in the field. The enthusiasm has genuinely resulted in a department-wide attitudinal shift towards a linking research to poverty and gender. This represents a major shift from the unfocussed traditional university based research.

A follow-up training impact assessment would have provided clear indicators of achievement against training objectives. To take full advantage of this for replication with other professionals of perhaps different disciplines and to enhance existing knowledge of those trained it is recommended that a full analysis of training objective achievement is conducted. The boundaries of livelihoods assessment knowledge must be defined. The output will enable the project to; i) Refine the series of courses and workshop provided to university teachers and the process adopted so that a 'livelihoods training model' for professionals may be described for livelihoods and participatory research training; ii) identify further training needs for the trainees i.e. the university teachers. This study should be conducted by a team involving one trainer from the original course.

Acceptance by Academic Council of new Livelihoods course at undergraduate and postgraduate level is a major achievement. This is likely to significantly contribute to future generations of graduates' awareness of pro-poor and gender related issues affecting rural communities. The principles are less evident in the teacher's respective courses prepared through the teaching awards where relevant (e.g. coastal management but not fish nutrition) reflecting need for further exposure to livelihoods principles and current developmental thinking. This will happen if the teachers are able to continue field based research work and participate in the delivery of the livelihoods course.

The project has been successful in providing a basic understanding and awareness of the livelihoods principles to senior executives not directly involved with the program. Anecdotal evidence suggests that projects' influence has resulted in an attitudinal shift towards poverty-focused research at the most senior level. This was only possible by high quality livelihood and participatory research training to all departmental staff whereupon collectively they had a determinable influence upon Heads of Departments and Deans. A permanent shift towards a participatory livelihoods research approach may only be realized and assessed some time after project closure. It is important for the project to be able to demonstrate that this kind of research does lead to real and meaningful changes to the livelihoods of the poor. Even small scale adoption unsupported by the project would have a dramatic effect on shifting research emphasis within universities towards the field and the poor permanently. The project is cautioned to ensure that this should be encouraged by SUFER and other sector agents

once a thorough assessment of the technology, stakeholder benefits, equity and access is complete. To fulfil this goal, the project needs to carefully work on its communications action plan in the months remaining for the project to ensure this kind of important information (evidence of scaling up) brings significant recognition and kudos to the implementing Department, particularly important for senior university executives and decision makers and their role in sustaining this process.

SLA and participatory research training has led to the development of research having potentially direct impact on the poor, and in some cases women. During field implementation of the research some of the teachers have become noticeably more conversant in the issues pro-poor livelihoods analysis and understanding of livelihoods options and diversification. The research work is fed into the courses and case studies where relevant.

The project will only impact upon the poor if the research technologies are taken up by the poor. There are a number of risky assumptions; i) a sector agent will disseminate the technology (DoF? Its resources are scarce; NGOs? Must be convinced that the technology will be profitable or require external assistance); ii) The technology will be embraced by the poor, or if it is not, the poor will benefit indirectly (significant value adding to a resource will attract powerful elites who may dominate the resource); iii) the research is good quality with positive results which, if relevant, stands up to robust statistical testing (this has yet to be fully appraised but planned for May 2004 – unfinished projects and most of those completed are not published in internationally recognised peer reviewed journals). This last point may be related to the first where potential adopters require confidence to invest.

The purpose is described by one of three OVIs as "*Practical responses to poverty-linked constraints in five sub-sectors developed and applied through joint university linkages*". The word "applied" is too non-descript and open to interpretation contrary to the purpose of OVIs. One way to interpret is consider what the statement does not say, which is to directly engage in scaling up and dissemination of the technology. Therefore, the project will not have direct impact on poverty reduction during the project period but its activities may be widely attributable to poverty reduction in the long term.

Targeting of poor groups was not well-defined in Project Memorandum but then this was written mid to late nineties. Target groups identified during the international consultancy input for livelihoods and poverty training for university teachers and selected NGOs were well-defined e.g. groups working with researchers on mollusc, crab fattening and PL nursing. However, there is less evidence of thorough screening and defining of target group profiles for other research initiatives. The project did not insist on a mandatory pro-poor scoping studies to evaluate socio-economic profiles prior to submission of research proposals (unrealistic in early stages) but the project has been successful in encouraging researchers to utilize pro-poor target group selection tools and embrace the principles of pro-poor livelihoods based research.

With respect to equality of access and opportunities, poor groups were targeted (as defined by the communities themselves) either through the livelihoods studies or contacts with local NGOs. Thus the targeted groups were the beneficiaries and results were available directly to them. For research areas where there may have been potential conflict for resource users or possibly differential access may lead to detrimental impacts for other user groups the SUFER commissioned research awards to make an assessment. The best example is work with the NGO, BELA because this is part of a group of researchable topics aimed at fulfilling an ultimate single goal. BELA has been commissioned to assess potential risks in access and resource-use conflict for the mollusc and shrimp post-larvae nursing research. Results are presently unavailable but this 'composite' commissioned research approach is an exciting new approach to incorporate the sociological dimension into technological opportunities. However, there is no evidence to date that other poor people have benefited from this research (except some benefits for research groups) either directly or through other agencies, and so for the SUFER project, in the absence of livelihood impact studies and uptake, equality of access is not measurable.

Extending social issues such as gender, participation, poverty and equity to partner organisations is not a specific remit of the project but formation of linkages and partnerships is a significant output for SUFER and therefore the project could be pro-active in disseminating the participatory livelihoods research to its partners. There has not been any specific secondary livelihoods or gender training by the project to its partners but some steps forward are evident; i) Understanding and awareness has been imparted through working together with partner NGOs. Furthermore, NGOs already have much more exposure to the rural livelihood issues and in many cases probably helped the researchers understand the social issues important to the groups and surrounding communities. NGOs are further involved in facilitation workshops but this is more geared towards technology transfer and scaling up through the NGOs rather than social issues specifically, ii) The project has adopted an innovative approach of providing M.Sc internships for students linked to NGO. iii) Some partner NGO staff assisted with livelihoods training.

Three research awards addressed livelihoods issues directly;

  i)   Institutional and socio-political context of coastal fishing communities in Bangladesh

  ii)   The sustainable livelihoods approach of fish distribution and marketing systems in Gazipur, Bangladesh.

  iii)   Aquaculture Extension projects in Bangladesh – assessing its sustainability and socio-economic impact on livelihoods of fish farmers.

Gender

The project has attempted to introduce gender awareness and promote women's involvement in the project wherever possible through gender training, research and teaching awards for female research staff and at field level, targeting

28

research topics towards developing better livelihoods options for women and children. Some studies have been directed specifically at women related issues. The project does not have a gender strategy because the management feels that it is doing all it can to incorporate women. Some of the highlights of the work done in this area and gaps remaining are described in the following paragraphs of this section.

Fisheries and Aquaculture in Universities is male dominated (8 female lecturing staff out of 113 when the project started but has recently risen to 13). This is similar in the Department of Fisheries where the range varies from 2-4% depending on the staffing level. This does not compare with women's involvement in this sector where the percentage of women will be much higher as women and girls are engaged in small homestead fish pond management, fry and PL collecting and most significantly in the fish and shrimp drying and processing industry.

Attendance is minimal at project management committees (1-2 out of 15) but this is due to the inherent low level of female recruitment to the relevant posts attributable to committee attendance. Attendance is much better at the fisheries research forum initiated by the project. SUFER does actively seek to engage and invite women to such events.

Gender training was given to all teachers during the 8 day livelihoods course but given the short time, volume of information and complexity of relatively new information it is doubtful that this would have had significant impact in understanding of gender issues (no follow-up analysis to test this). A separate series of courses engaging gender expertise would have been more ideal.

Since the university teachers are researchers in fisheries related technology, it is to be expected that their focus remains with the technological aspects of the research work such that profit and increased fish production directly or indirectly remains the most important indicator of success but *do* the women receive this profit (benefit) and at what cost? This is the most important gap in the research work targeted towards women groups. The *quality* of the women's participation is not assessed. The lesson learnt here is that if the purpose of research is to develop certain disadvantaged groups, much more emphasis must be placed on analysis of the socio-economical and socio-cultural dimensions of the intervention. If this type of research is to continue in Bangladesh SUFER should try to define a cost efficient research agenda that integrates technology development with social impact.

Monitoring and evaluation in the project is more aligned to the logframe OVIs rather than research quality (e.g. set of standards for research monitoring and final reports) or the socio-economic data related to livelihoods. Much of the research work targeted towards poor women groups is incomplete. Data quantifies male and female participation. The research projects do not have socio-economic analysis and impact as an integral part of the research work i.e. co-research with social scientists or an element of socio-economic assessment as an independent area of study then valued information relating to the social dimension of female involvement may be lost. For example, in all cases and most

importantly where females are targeted for the production technology, there is no additional analysis in place to assess; change within the household, perceptions of the community, potential social capital building or exclusion, group dynamics, workloads, direct and indirect benefits. There are examples where non-disaggregated data may not highlight the relative benefits between the male and female members of the 'household' groups (quality of participation) and especially, where inclusion of males in 'female' groups are necessary for interactions outside the village e.g. purchasing (fish, shrimp PL, inputs etc.) and selling of produce. If this analysis is not undertaken then assumptions and forecasting of benefits to women if the technology is scaled-up will be without sound justification. This is to some extent a *de facto* problem, in the short term i.e. the social scientists are reluctant to co-investigate with technical departments. There may be other sustainable ways as proposed later in this document. For the exit strategy, the project must ensure that the planned impact assessment of 12 technologies for next year does focus on the impact on women.

Without an organisational strategic plan for each of the universities the process of gender mainstreaming will be much more difficult. Gender mainstreaming is an integral part of an institutionalizing process. Despite the project's efforts to consider the inclusion and advancement of women wherever possible, mainstreaming will not be realised at present, simply because the project has set up a complete set of procedures which fall outside existing university protocol and guidelines. This is often the case when projects demand too much too quickly through their logframes and do not make progress conditional on an incremental mainstreaming process. The project has had to design its own procedures to implement the project activities within the given relatively short timeframe e.g. proposal and screening process, monitoring and evaluation, reporting, financing, quality appraisal etc. Therefore, apart from the aforementioned attitudinal shift to pro-poor, pro-female research, no institutional mainstreaming of this process is evident.

The project is working with UGC to develop an accreditation scheme for the five partner universities and this represents an opportunity for the project to include some of the gender related initiatives presently implemented. This review emphasises the need for project to engage a specialist to advise the project and UGC how to mainstream gender issues into his scheme. A broader lesson learnt is that mainstreaming and organisational change can not follow the strict timeframe of project set timebound indicators. Wherever possible, specific organisational change may realistically only be possible as a pre-condition to project implementation e.g. precursor programme to set the stage to mainstream gender in universities. However such initiatives are the realm of higher government reform and projects should not be expected to make significant in-roads towards organisational functional and strategic reform i.e. mainstreaming gender into university administrations.

Women were involved in the participatory livelihoods research identification exercises so that they had a voice in the technological ideas and design modification. The technology tends to be homestead based so that women have

greater access and responsibility for its success but in many instances men are required periodically or daily during the production cycle. The impact of this arrangement is unknown. At best they will be equally sharing the benefits relative to their inputs and at worst, the women may be working harder for her husband's or male relative's increased income which is not used for greater household food and income security. It is crucial that this is studied during and after the experimental period. Examples during the review revealed that women were certainly group members contributing to the final product but in the case of solar dried fish initiative, the lead member was male who bought fish from the fishermen and negotiated sales to the participating NGO (who acted as a wholesaler); male members collected feed (aquatic grasses) in the surrounding waterways for grass carp in cages; they bought the PL for female members to nurse in cages and sold them later to farmers. For family groups this may lead to developing livelihood options bringing greater wealth to the family for effort and time invested. For families able to move from banned PL collection this represents a major safe and legal alternative means of income. One women involved in cage culture of grass carps claimed to have reduced her dependence on cigarette rolling (*bidis*) as an income.

Two research awards addressed gender issues directly;

i) Fishing Communities: Credit and Gender Issues

ii) Women and Fisheries: level of involvement and scope for enhancement.

Communication Strategy

Both the 2002 OPR and the 2003 MYR made recommendations that the project develop a communications strategy for disseminating information. RLEP has commissioned a Review of Communication Strategies in the DFID Bangladesh Rural Livelihoods Programme, conducted in November 2003. This Review identifies the following eight principles for reviewing communications strategies:

- Responsiveness to the CAP. This is of particular relevance for information provided by the project to DFID.
- Accessibility to information. Is the information suitable to the needs of the audience, available at the right time, in a format that the audience can get access to and understand?
- Quality of communication materials. This should be assessed by pre-testing of the materials.
- Sustainability or continuity of communication activities. Communications activities should have an institutional home.
- Building relations with media and professional communication service agencies.
- Evidence based lessons. The information should provide a lesson, based on evidence, and not just a report on an activity.
- Communications as a discipline. Effective communication requires a multi-media approach implemented by a skilled communications specialist.

- M & E for communications. If communications activities are there to raise awareness, change attitude or behaviour, then they must be monitored and evaluated in the project's regular M&E activities. Ideally each activity should be monitored for its effectiveness (e.g. how many people actually share or use information from the workshop – which media is best for sharing this information; what is the desired impact, or effect from communicating information; was the information available at the right time, in the right place and in the right form, etc.).

The project has begun developing and implementing a communications strategy which has addressed some, but not all of these points. The project has identified different kinds of information needs for different audiences and begun to develop and transmit the information in different formats and media, contracting to professional media services to develop television and radio spots.

Individual research awards are required to prepare communications materials. Usually these are pamphlets prepared by the researchers. Often the pamphlets prepared by the researchers are not well suited to the intended audience, and the project management has had to request changes in the materials to make them more appropriate to the intended audience (e.g. produce in Bangla, do not include technical details, etc.)

One of the critical principles of a communications strategy that the project should work toward in the remaining time is to develop a communications M&E strategy. Most importantly, evaluation of the impacts of communication efforts should be undertaken. Surveys should be conducted to assess the uptake of information from pamphlets, television and radio spots, and other communications materials.

Project Monitoring and Evaluation

The 2002 OPR raised concerns about the project capacity to evaluate achievements of project purpose and objectives. The OPR recommended that SUFER should recruit a consultant to assist in the development of an evaluation plan. This was attempted but negotiations stalled, and no evaluation plan has been prepared. At this late date in the project, there is no point in putting together an evaluation plan. Rather the project should commission a series of studies to assess project impacts. Some are already planned, including:

- A subsector review of dried fish markets. This will be done in collaboration with South Asia Enterprise Development Facility (SEDF). It is important to emphasize that this review should address a number of important social development issues: Who is most likely to adopt the technology? Which individuals or groups in communities will benefit from the adoption and which will lose out? Will women actually share in any of the economic benefits that the driers may provide, or will they continue to work and receive the same as in the existing practices?

- An impact assessment of twelve technologies that are being developed or studied under project research awards. This impact assessment should address the same social development questions described in the point above.

- The project has requested that an MSc student at Stirling University undertake a thesis to study the effectiveness of university-NGO partnerships in determining and executing pro-poor research, using information from the project-sponsored research awards.

- Evaluation of the impacts of communications activities undertaken by the project (radio and television spots, pamphlets). This evaluation should assess the degree to which the messages have reached the intended audiences and the extent to which the messages have been understood and are considered to be relevant by the recipients.

Ways Forward

The central aim of SUFER boils down to developing human capital in fisheries teaching and research in line with social development needs of the country. This is done through teaching and research capacity building of the teachers of various fisheries departments at the university level. The project has done much to develop this human capital. The challenge now is to effect institutional changes (institutional capital) that will help to maintain and continue to develop the existing base of human capital.

The project is now in the final stage of implementation. No new research or teaching awards are to be commissioned. The focus of project activities should now be directed towards ensuring that the teaching and research capacities provided to individuals over the course over the course of the project become institutionally embedded in the departments. With respect to research, the departments must be provided with the necessary skills and vision to be able to secure research funding from other sources. Similarly, the project must now focus on ensuring that the institutional linkages that have been developed, across university departments, among universities and NGOs, will be sustained into the future. The project management is well aware of the need to redirect project energies to address these sustainability concerns, and has developed plans to address them. The review team supports the proposed activities, and has some additional recommendations, described below.

Support for Teaching and Curriculum Development

As an outcome of SUFER project intervention, there have been significant achievements on the teaching front. The concern there is consolidating what has been already achieved. Introduction of the QAS in the fisheries departments is one way to continue to promote and improve quality of teaching into the future.

A larger issue, and one that the project cannot address within its given mandate and remaining time, is the degree to which teachers will actually utilize the information from the QAS to improve their teaching performance. Unless there are clear incentives for teachers to improve their performance, either through monetary rewards or career advancement, many are not likely to expend the effort to alter their teaching approaches. These incentives must be provided within the university infrastructure. The UGC accreditation of universities is one

mechanism through which universities could be directed to introduce such incentives.

Another strategy that could be promoted would be to have the instructors that have received teaching awards to act as mentors for incoming faculty. The mentors could share the experience they received about how to organize a course, present materials in an interesting manner, engage the students, etc. to the new teachers as they prepare their courses.

The project could organize a workshop for teachers of aquaculture, fisheries management, and ecology courses to identify ways that livelihood concepts into these courses, both in the lectures and in the practical field courses.

Support to Research

On the research front the immediate needs are both technical and social. It is important to independently verify the quality of techniques developed by the research award holders of the SUFER project. Otherwise the SUFER project will be held responsible for any inappropriate technology that could adversely affect the livelihoods of the population.

On the social side the issue is to verify how these technologies could potentially affect different social groups. Since SUFER promoted technology has not yet been marketed or widely disseminated, the impact of this technology is not yet known. In this case a small set of technologies could be identified and their merits verified by independent experts. It is also important to know to what extent livelihoods approach has been used by the award holders and at what stage of the research cycle and how. The SUFER project has developed a number of potentially useful technologies but these have to be demonstrated and evaluated. If this is not done then the project will remain long on promises but short on actual achievements. The SUFER project has enhanced research facilities in the respective departments, improved the teaching and research capabilities of the teachers and promoted collaborative research. All these gains and potentials will be lost when the SUFER project will be over. What then is the way forward? Is there any exit strategy for the SUFER project?

The project has plans to offer more workshops on writing grant proposals and writing research papers. The goal of the grant proposal workshop is that participants will identify and develop specific proposals that the participants can submit to existing funding organizations. The proposals will be tailored to the specific requirements of the funding organizations. This training will help the university faculty to secure research funding after the end of the project. The support for writing research papers is also important to maintain quality of research. First, getting research proposals into refereed journals will provide a check on the quality of research conducted. Second, with a good publication record, researchers will be in a better position to secure future research funds.

The project should provide the fisheries faculty with information about possible funding sources for research.

Some areas of research (solar driers, PL nurseries, mudcrab fattening, policulture techniques) will be moving to initial stages of promotion for uptake by

individuals by the end of the project. There is a very strong need to engage in additional research to address social and economic issues related to the potential adoption of these technologies. Questions to be addressed include: who will adopt the new technologies, will resource-poor households be able to adopt or in any way benefit from the new technologies, how will introduction of the new technologies affect women, are there groups that may be negatively affected by the introduction of the new technologies? Are there possible actions that could facilitate adoption of the new technologies by resource-poor households, ensure that women actually benefit from the new technologies?

Internships of MSc students with NGOs appears to been an effective strategy to establish working relationships between universities and NGOs. These internships get students into the field and exposed to the livelihood conditions and challenges of fisher households and communities. The project has requested that an MSc student at Stirling University undertake a thesis to study the effectives of University-NGO partnerships in determining and executing pro-poor research, using information from the project-sponsored research awards.

The project should review of the development of the research award process over the course of the project cycle. What lessons have been learned? Particular attention should be paid to the strategy of commissioned research to address various dimensions of the potential to increase mollusc production and trade. Did this strategy in fact lead to a truly integrated research program? Was there collaboration among the team during the research process, or did all individual projects all work independently. How effectively were the research findings pulled together to provide an integrated picture of the potential for the uptake of this activity?

Institutional Linkages and Partnerships

The purpose and goal statements of the SUFER project went through a process of metamorphosis and its final form the project purpose focused on creating and developing sectoral links. The OPR 2001 in particular recommended longer term links with the NGOs. This is well justified and seems to be the major way of carrying out the project purpose. The NGOs are the agents who are closely related to the technological demands of the poor. A new technology can help them to pursue their objectives. They have an incentive to make sure that the technology is appropriate and is adopted in a right way and under right conditions. Their liabilities are strong. They have already developed a strong client base and they will try to make sure that the mutual trust between them and their clients is not eroded. The social capital of the NGOs generated through interactions with their client base is one of their major key to success. They invest substantially to generate this social capital.

The NGO-University link is the most successful collaboration undertaken by the SUFER project so far. The way forward is envisaged in carrying forward this link without the orbit of SUFER by developing a low cost CGS. Management costs of successful CGS in other countries start at 15% falling to 8% in later years. What is this now within SUFER and what changes need to be made to reduce these

management costs?

A neutral grants awarding committee can be formed with an increased representation from the social scientists (economists, anthropologists etc.). Total costs of the CGS need not to be very high. Teaching awards can be almost done away with. The MSc internship programme can continue. The award committee could initially work with the best researchers (the winners picked up by the project?) and the best (as evaluated by the SUFER at the end of the project) NGOs (CARITAS, COAST, CODEC, ITDG etc.?). This can run on a pilot basis to start with. The number of awards can be reduced and the size of the awards can be increased. There could be a reward system attached to high quality publications coming out of the award holders of the project. There could be an award for the best research project. This can be housed in UGC or in the World Fish Centre with local and minimum administrative support.

Lessons learned

The project has undergone a significant evolution in the grant awarding process, and many valuable lessons can be drawn from this experience. These lessons are of particular interest as DFID considers moving to a much more indirect strategy for investment in research and extension activities.

When calls for proposals include specific criteria that the research must address poverty or livelihoods issues, much work is needed to provide the applicants with the necessary background to be able to fully understand and address these requirements. Experience from SUFER shows that if research moves outside of narrow disciplinary focus, researchers need to be provided with extensive background to understand the social, economic, environmental factors which condition livelihoods*.* A critical aspect of this process is defining the boundaries of livelihoods approach understanding needed by researchers in technical fields. This must be determined to understand degree of collaboration with Social scientists, achievement of livelihoods training objectives and identifying training gap and guide mentoring proposed for future faculty members.

If a research funding agency is to apply social development criteria in calls, then the agency needs to have the resources and capacities to provide this kind of sensitization to potential applicants.

If research proposals are to have a social development focus, and if they are to be tied to promoting adoption of new techniques in the field, collaborative research proposals will be needed. The funding agency needs to develop a strategy to ensure this interdisciplinary focus. One strategy is to explicitly include in the research call a requirement to include social science analysis within the proposal. In this strategy, the review of the proposal would need to assess the degree to which the social and technical components are effectively integrated with each other. Another strategy, currently being tested by SUFER, is to commission a set of related proposals, each with a disciplinary focus. Assessment of the advantages and disadvantages of this strategy will be possible at the end of the project.

Any external agency providing research funding to universities needs to develop communications strategy for disseminating the research results. Among other things, this strategy would have to address identification of the appropriate recipients of the research results, and the appropriate means to provide the information to different audiences. Since university faculty generally do not have the necessary skills to prepare communications materials for non-specialized audiences, the funding agency would need to have in-house communications capacities to develop the appropriate materials to disseminate research findings to different audiences.

University faculties are only engaged in research, and usually need institutional support to promote adoption of new technologies. SUFER has been quite successful in promoting linkages among universities and NGOs. Future research funding initiatives can look to supporting these partnerships.

A larger lesson from the university NGO collaboration is that successful and sustained collaboration depends on a clear understanding of the interests of the various partners, and must be based on promoting shared interests, while at the same time understanding that the partners will also have different, possibly competing interests. The incentives for collaboration are based on the shared interests of the collaborating partners, and each must understand that the collaboration advances their own interests. The collaboration between universities and NGOs is an example.

A clear understanding of incentives and how incentives may be directed are also critical to fostering sustained institutional change. Improving teaching quality will only happen if teachers have incentives to improve their teaching. This will require changes in the way universities reward teachers' performance.

Annexe 1.Terms of Reference
Fifth Output to Purpose review
30th November to 14th December 2003

1. Project Title

Support for University Fisheries Education and Research (SUFER). 1999 to 2004.

2. Background

The purpose of the Support for University Fisheries Education and Research (SUFER) project is to strengthen human resources, skills and knowledge for poverty-sensitive aquatic resource development by increasing the capability of universities interacting with sector agents to deliver quality graduates and development-linked research. This supports the goal to 'sustainably and equitably manage and develop Bangladesh's aquatic resources'.

The SUFER project was formally approved in March 1998 and commenced operations in February 1999. The project is scheduled to run until July 2004 with DFID funding of £2.45m. SUFER is located within the University Grants Commission and is managed by a DFID-appointed Project Co-ordinator. The project has been established to use institutional change in the university sector as a means of achieving broader development objectives. It works with five Universities: Dhaka, Khulna, Rajshahi, Chittagong and Bangladesh Agricultural University, Mymensingh; providing technical support and a range of teaching and research grants.

The SUFER Mid-term Review (MTR) was held in September 2000 and concluded that the project was not making sufficient progress towards its objectives, identifying constraints of poor uptake, confusion among target groups and over-complicated procedures. The MTR recommended a number of structural and operational changes to improve project performance. After MTR, annual review (OPR) held in November 2001, commented that the project was making progress though the rate of change needed to be accelerated to meet End of Project (EoP) targets. The OPR noted more positive engagement by the University community and that the restructured award system was better contributing to overall project objectives. The OPR also highlighted continued areas of non-performance and made recommendations to improve progress in these and a number of other areas.

An OPR held in October/November 2002 concluded that a number of changes proposed in the OPR 2001 to accelerate progress have been started but a sizeable distance still remains to successful outcome. The OPR team commented that the project has not been sufficiently proactive in stimulating sectoral alliance, and at the current levels the project would be unlikely to achieve much more than a small shift in teaching performance and graduate skills, and small number of useful but low impact research activities. Following discussion between the project and DFIDB the project refocused its research strategy towards three outcomes (Pro poor growth in commercial aquaculture, University support to public and private sector linkage, Diversifying the livelihoods of poor coastal community).

To achieve these outcomes and in response to the OPR 2002 the project revised its strategy in January 2003, including key activities and milestones. A Mid Year Review and a specific study on "Assessing Impact of Teaching Quality" followed soon after in May 2003. The MYR focused on two key areas, i) Assess and comment on the progress made towards implementing *key recommendations* made in the last OPR (October 2002) and ii) Review the current strategies, activities, and milestones towards achieving 3 major outcomes and provide clear recommendations to enable the project to effectively achieve these outcomes. The overall assessment was that, "*The project has made good progress towards meeting the recommendations of the November 2002 OPR*"[1]. The assessment of teaching quality study reported that, "*The SUFER project has had a significant positive impact on teaching practice in all four of the five participating universities visited*"[2]

This review is an opportunity to not only measure the progress against some key recommendations made during last Mid Year Review, and also assess likelihood of project's contributions towards its objectives in the remaining period, but also to document the process of change relating to the turn-around from a project that was unlikely to achieve its purpose as summed up in the OPR 2002 report, "*At current levels the project would be unlikely to achieve much more than a small shift in teaching performance and graduate skills, and a small number of useful, but low impact research activities*"[3] to a project that is making good progress, according to the Mid Year Review of May 2003.

3.   Objectives

The overall objective of the consultancy is to:

- Assess progress towards the PIMS markers set in the Project Memorandum and overall achievement of the project's objectives including revised outputs using DFID's Office Instructions as a guideline (OI Vol. II: I 1).

- Assess recommendations and progress made since the last OPR-02 and MYR-03.

- Determine level of achievement of each project component as stated in the logical framework and how this has impacted on the goal of the project.

- Document and present key lessons learnt to DFID, UGC, Universities and key partners.

4. Methodology

The consultancy is seen as working very closely with the TA team, with greatest emphasis upon determining the overall performance according to tasks set in the project documents and periodic review recommendations and, to highlight key lessons learnt for not only the implementing organisations but also a wider audience. Implications of these

---

[1] Hambrey, J. (2003). SUFER Mid Year Review, May 2003. 26p.
[2] Allison, E. (2003). Assessing the Impact of the SUFER project on teaching Quality in Fisheries and Aquaculture in Bangladeshi Universities, April 27th – May 10th 2003. May 2003. 41p.
[3] Gill, G.J., Meyer, J.W. and Muir, J.F. (2002). Second Output to Purpose Review, November 2002. 28p.

key lessons learnt for future implementation of the DFID Country Assistance Plan (CAP) should be highlighted.

This, along with the tasks below, will contribute to the OPR report, in a format to be decided by the Team Leader, covering the issues indicated in this TOR, as well as completion of the standard DFID OPR form.

The team will receive a briefing from DFID and RLEP with regard to the TORs for this review. The SUFER project team and RLEP Team Leader will be responsible for the operational aspects of the review. The itinerary will be finalised on arrival in Bangladesh.

The team members will undertake meetings and field visits as required to undertake their TORs and meet with project, UGC officials, project beneficiaries and other key stakeholders. The team members will, in addition to conducting the review, participate fully in writing a draft report for submission to DFID prior to departure. The team will be composed of one expatriate international consultants and one local consultant working closely with a cross-cutting team responsible for this project and two other DFID funded projects in the cluster namely PETRRA and REFPI[4]. All cross cutting consultants are anchored in respective projects such that they report to the project team leader, assist with completion of review objectives but in addition, link with consultants reviewing other cluster projects and lead on the development of findings for their assigned generic theme. Team leaders need to consider this when allocating tasks to team members. See Annex 1 for more details of the 'cluster' and cross-cutting arrangement.

The consultant team leader will be expected to collaborate with team leaders from other simultaneous reviews under the new 'cluster' arrangement to present key generic lessons learnt across the three projects to a wider audience through a Key Findings Forum.

The members of the team are listed below:

Lead SUFER consultant

1. Mark Langworthy (Team Leader) – Institutional and university research programme development.

Cross-cutting consultant (anchored in SUFER)

Consultants maintain a core responsibility to completion of the scope of work for SUFER as directed by the Lead Consultant and compare and contrast generic issues across projects.

2. Alan Brooks (Team Leader - RLEP). Project management and implementation and evaluation of "pro-poor growth assessment in commercial aquaculture" project outcome. Additionally, provide link to Benedetta Musillo on social development, poverty and gender assessment.
3. Kazi Ali Toufique (National Consultant). Village level livelihoods research, technology transfer, training and extension by public sector institutions.

Cross-cutting consultant (anchored in PETRRA and REFPI).

---

[4] Poverty Elimination Through Rice Research Assistance Project (PETRRA) & Research and Extension Farm Power Issues (REFPI).

Consultants maintain a core responsibility to completion of the scope of work for other projects as directed by respective Lead Consultants and compare and contrast relevant generic issues with SUFER project's experiences.

4. Kamal Kar (International Consultant). Participatory livelihoods development, impact assessment, technology transfer, training and extension.
5. Md Zaruhul Alam (National Consultant). Institutional development and organizational change and policy influencing.
6. Enamul Huda (National Consultant). Socio-economic development, poverty and equity focussed research.

DFID-B Staff

Additional DFID-B staff will attend the OPR presentation and may join the review team for some or all of the fieldwork. These additional team members include:

- Martin Leach, Senior Rural Livelihoods Adviser.
- Tim Robertson, Natural Resources & Environment Adviser (livelihoods, natural resources and environment).
- Duncan King, Rural Livelihoods Programme Adviser.
- Eric Hanley, Senior Social Development Adviser
- Amita Dey, Social Development Adviser (poverty, equity and gender issues)
- Najir Ahmed Khan, Programme Support Officer (and SUFER Project Officer)

5. Scope of work

Review and comment upon progress made against recommendations of the mid year review, "Assessing the Impact of the SUFER Project on Teaching Quality in Fisheries and Aquaculture in Bangladeshi Universities", SUFER policy processes consultancy reports and delivery of outputs more specifically according to the points listed in the "Scope of Work" listed below. Also comment on how relevant the model developed by the Project to improve teaching capability and development focused research capacity might be appropriate to other disciplines.

The strategy developed in November 2002, refocuses and organises the activities of the project in three key outcome areas:

i. Pro-poor growth in commercial aquaculture;
ii. University support to public and private sector linkage;
iii. Diversifying the livelihoods of poor coastal communities

Diversifying the livelihoods of poor coastal community

i. Comment on the influence of research activities in this area towards achieving objectives, with particular reference to their impact on women.
ii. Comment on dissemination strategies and suggest mechanisms for improving uptake pathways. This should be linked to the pro-poor growth in commercial aquaculture section below.

iii.   Review marketing strategies explored by the Project and comment on their robustness in channelling the products of pro-poor enterprises to local and global markets. Suggest mechanisms for improvement where necessary.

Pro poor growth in commercial aquaculture

iv.   With reference to the "Report on Cage Culture for SUFER Project" comment on progress in this area.

v.   Comment on how the project has been progressing towards building links with the commercial aquaculture sector and suggest mechanisms for embedding good practice.

vi.   Review research initiatives focusing on improvements to management strategies fore enhanced cost effective production of *Pangash* (the new food fish of the poor), self replicating species and decentralised fish seed production.

University support to public and private sector linkage

vii.   Comment on progress made towards the establishment of intra and inter cross-sectoral linkages and partnerships.

viii.   Comment on the fish seed quality enhancement programme in achieving the technical goals and the influence university research activities are having in driving change within the hatchery sector.

ix.   Assess progress made by the Project to engage all members of the fisheries sector towards the wider debate on poverty-focussed strategies for research.

x.   Review progress towards assistance by SUFER of the Government's aims to address quality within the public and private university sector. Also how this is being used (potential) for improving course content to meet employer needs, delivery and promoting support from within to provide continual support to teacher development.

xi.   Comment on how the Project is helping to address pro poor environmental issues through cross donor linkages.

xii.   Assess the strength and long-term viability of NGO/university partnerships facilitated by the SUFER Project and suggest mechanisms for improvement.

Crosscutting

xiii.   With particular reference to the mid year review and the Policy Processes consultancy review comment on how the Project is meeting the objectives and priorities of the I-PRSP and CAP. Has the project been able to incorporate findings and recommendations for the Fisheries Sector Development and Future Review?

xiv.   Comment on progress made over the last 18 months by the Project to identify and address pro poor female issues in the fisheries sector and suggest mechanisms to embed positive research outcomes and initiatives related to pro-poor female issues in future government and donor led research policy and strategy.

xv.   To what extent do the project stakeholders understand gender related issues?

xvi.   Comment on progress towards integration of social science within fisheries research and teaching and review the adoption of livelihoods concepts and issues into the teaching and research objectives of university teachers.

xvii. Comment on the role SUFER is playing in sectoral knowledge co-ordination and its liaison with private sector agencies and projects e.g. ICZM and ATDP.

xviii. Comment on capacity building initiatives and consultancies promoted by the project in terms of strengthening teaching and research capabilities at a domestic and international level.

xix. Review the different research commissioning strategies employed by the Project as models for delivering evidenced based data for driving CAP objectives and priorities.

xx. Review progress the Project has made in changing attitudes of teacher, researchers and students towards poverty-sensitive aquatic resource development

xxi. According to independent studies determine the effectiveness of project M&E both in terms of overall progress and impact of SUFER and proportional system to assess progress and impact of individual awards and specific project activities, including a review of the Quality Assurance schemes being developed.

xxii. Comment on the progress made by the project to identify common themes and activities and distil out learning or recommend actions to distil out learning in a suitable format to inform key stakeholders in both the current projects and future pro-poor, demand-led agricultural research agricultural research processes. [*Such themes could include: identification and prioritization of research; approaches to commissioning and managing research portfolios; partnerships and coalitions to address identification, implementation and extension of research; dissemination and uptake (scaling up/out); monitoring and evaluation*].

6.   Expected Outcomes and Deliverables

The Team Leader will work with Team Leaders from reviews of PETRRA and REFPI to pull together common trends, highlight generic issues, contrast and compare approaches and provide composite key findings from three simultaneous reviews. This will be presented to a wider audience coordinated by RLEP through a Key Findings Forum scheduled for 14th December 2003. A key output from the forum will be 'thematic key issues papers' to be prepared in draft by the project team leaders

A draft copy of the report (summary not more than 5 pages), thematic key issues papers and DFID OPR format tables, prepared in MS Word will be left with RLEP before departure and a final copy sent to RLEP and DFID within 14 days of arrival back home.

7. Competencies and expertise required

Consultants will be appointed with the following competencies.

- Good understanding and working experience in the fisheries sector and of development issues in Bangladesh, particularly working with universities promoting development-linked research.
- Understanding of change management and organisational, institutional process in the University and preferably to have had first-hand experience of managing a change management and organisational development project.
- Clear understanding about challenges of project management in Bangladesh;
- Experience of DFID's policy and commitment to poverty reduction;
- Understanding of gender, equity, poverty issues in Bangladesh

- Good understanding and familiarity of using the sustainable livelihoods approach.
- Excellent drafting, communication skills and team working will be required

7.   Conduct of Work

The consultants will facilitate the process of the review and the preparation of the report. They will work from the SUFER office in the UGC Building and RLEP/BETS office in Gulshan 1[5], which will provide logistical and administrative support and facilitation as and when required.

The Review and RLEP Team Leaders will be responsible for allocating responsibility and coordinating different aspects of the review in liaison with SUFER project team and DFID advisers.

9.   Inputs and timing

The in-country review will take place from November 30th to December 11th, 2003, extended to 14th December 2003 for team leaders.

The total input will consist of 15 days (18 days for team leaders), indicatively broken down into:

> 1 days preparation (reading briefing materials)
> 12 days in-country (15 days for team leaders)
> 2 days report writing

10.   Briefing Information

1. Project Memorandum
2. Sustainable Livelihoods Training Report May 2002
3. Second OPR November 2002
4. Report on Participatory Fisheries Research Identification and Implementation November 2002
5. Mid year Review May 2003.
6. Assessing the Impact of the SUFER Project on Teaching Quality in Fisheries and Aquaculture in Bangladesh Universities July 2003
7. SUFER Policy Process Consultancy Report August 2003
8. SUFER Progress Report November 2003
9. "*Women and Girls First*". DFID Bangladesh Country Assistance Plan 2003 – 2006.
10. Livelihood Impact Assessment Report 2000
11. DFIDB Programme Poverty Review (Summary Paper; Annotated Bibliography) June 2000
12. DFIDB Gender Strategy. March 2000
13. A Review of Communication Strategies in the DFID Bangladesh Rural Livelihoods Programme. RLEP 2003.
14. A Review of Monitoring and Evaluation Systems in the DFID Bangladesh Rural Livelihoods Programme. RLEP 2003.

---

[5] BETS Gulshan address: House No. 10, Road No. 135, Gulshan-1, Dhaka-1212, Bangladesh.
Telephone: (88-02) 9861531-2. RLEP Team Leader, Alan Brooks. Ext. 128. Mob. 018-225366.

Annex 1
DFID Rural Livelihoods Evaluation Partnership (RLEP): Cluster 2 review teams

Project and Lead Consultant	Core elements of review – Project purpose	Cross cutting – Participatory Research issues	Cross cutting – Social development issues
PETRRA **Margaret Quin**	**Progress towards achieving project purpose?** Development of NGO/Universities (public and private sector) partnerships and networks. Institutional development and organisational change, including policy influencing, public sector reform especially toward addressing poverty and equity issues through research and improved production technologies. Sustainability of changes promoted. Overall project performance against formal indicators. Completion of OPR/EOP forms.	**Village level livelihoods research, pro-poor focused training and extension implemented directly and indirectly by public sector institutions. Value based demand led research. Quality of technology transfer and teaching. Participatory livelihoods impact assessments. Communication strategies, dissemination techniques and pathways** International: **Kamal Kar** Anchored in PETRRA	**Social issues in access to services; gender mainstreaming (feed into gender thematic review) Poverty and equity focussed research. To what extent have gender, participation, poverty issues been adequately taken onboard by implementing and partner institutions (link to organisational change in the core element of the review)** International: **Benedetta Musillo** Anchored in PETRRA
SUFER **Mark Langworthy** plus Alan Brooks	Fisheries and agriculture sectors. National: Zaruhul Alam anchored in PETTRA:	National: **Kazi Ali Toufique** Anchored in SUFER	National: **Enamul Huda** Anchored in REFPI
REFPI **Don Brown**			

Notes:
1. Alan Brooks will have partial involvement as review consultant for SUFER.

Annexe 2. Itinary for SUFER OPR Team

30 Nov 11.00 Team dep Hotel for Cox's Bazaar

14.30 Presentation of research areas and teaching development by about 10 teachers from BAU and Chittagong with partner NGO representatives

20.00 Meal with Dilip Kumar and Team from FAO Empowerment of Coastal communities Project.

1 Dec 07.30 Dep Hotel Saiymon for Moheshkali
Visit solar drying of fish sub project
13.30 Pl nursing and mud crab fattening at Badakhali
15.30 Tilapia /sea bass culture in brown field sites
19.00 St Martin's Hotel Chittagong

2 Dec 09.00 Dep for Institute of Marine Science
13.00 Dep for airport
16.00 Dep Chittagong
17.30 Arr hotel Dhaka

3 Dec 07.30 Dep Hotel for Mymensingh
09.30 Arr BAU
10.00 – 16.00 Interview teachers
Night at BAU

4 Dec 09.00 Visit campus research facilities
10.00 Dep for field visit of research activities and uptake
15.00 Vist MSc project
17.30 Arrive Dhaka

6 Dec   Visit Dhaka University

7 Dec   Visit UGC talk to PD and staff

8 Dec   Meetings with collaborating NGOs

11 Dec   Presentation of findings to PMU, DFID

Annexe 3. Documents Consulted

1. SUFER Project Memorandum, January, 1998.
2. Sustainable Livelihoods Training Report May 2002
3. SUFER Second OPR November 2002
4. Report on Participatory Fisheries Research Identification and Implementation November 2002
5. SUFER Project Mid Year Review May 2003.
6. Assessing the Impact of the SUFER Project on Teaching Quality in Fisheries and Aquaculture in Bangladesh Universities July 2003
7. SUFER Policy Process Consultancy Report August 2003
8. SUFER Progress Report November 2003
9. Assessing the Impact of the SUFER Project on Teaching Quality in Fisheries and Aquaculture in Bangladeshi Universities, E. Allison, July, 2003.
10. "*Women and Girls First*". DFID Bangladesh Country Assistance Plan 2003 – 2006.
11. Livelihood Impact Assessment Report 2000
12. DFIDB Programme Poverty Review (Summary Paper; Annotated Bibliography) June 2000
13. DFIDB Gender Strategy. March 2000
14. A Review of Communication Strategies in the DFID Bangladesh Rural Livelihoods Programme. RLEP 2003.
15. A Review of Monitoring and Evaluation Systems in the DFID Bangladesh Rural Livelihoods Programme. RLEP 2003.
16. Bangladesh Krishi Projukti Foundation: In Support of Agricultural Research and Extension. A Concept Paper, October 2003.
17. Policies and the Drivers of Pro-Poor Change in Bangladesh. Draft Report to DFID, Dhaka, January 2003.
18. Hands not Land: How Livelihoods are Changing in Rural Bangladesh, K. A. Toufique, C. Turton.
19. A Review of Monitoring and Evaluation Systems in the DFID Bangladesh rural Livelihoods Programme, J. Meyer, RLEP, November, 2003.

Annexe 4. Persons Consulted

Name	Job Title	Institutional Affiliation
Dr Md Mufakker	Secreatary in Charge	UGC
Mr Chris Morrice	Project Co-ordinator, SUFER Project	SUFER Project, DfID, Dhaka
Dr Md. Akhteruzamman	Technical Manager, SUFER	SUFER Project, DfID, Dhaka
Prof. Md. Kamal	Professor	Department of Fishery Technology, Faculty of Fisheries, BAU
Dr Md. Mukhlesur Rahman Khan	Assistant Professor	Department of Fisheries Biology and Genetics, Faculty of Fisheries BAU
Dr Saleha Khan	Assistant Professor	Department of Fisheries Management Faculty of Fisheries, BAU
Dr. Md. Fazlul Awal Mollah	Professor	Department of Fisheries Biology and Genetics, Faculty of Fisheries BAU
Mr. M. Golam Farouque	Assistant Professor	Dept. of Agricultural Extension Education, BAU
Dr. Md. Rafiqul Islam Sarder	Professor	Department of Fisheries Biology and Genetics, Faculty of Fisheries BAU
Dr. Md. Samsul Alam	Professor	Department of Fisheries Biology and Genetics, Faculty of Fisheries BAU
Dr. Md. Mukhlesur Rahman Khan	Assistant Professor	Department of Fisheries Biology and Genetics, Faculty of Fisheries BAU
Dr. Md. Abdul Wahab	Professor	Department of Fisheries Management, Faculty of Fisheries, BAU
Dr. Md. Ali Reza Faruk	Associate Professor	Department of Aquaculture, BAU
Prof. Hossain Zamal	Professor	Institute of Marine Sciences, U. Chittagong
Dr. A.K.M. Abdul Matin	Professor	Institute of Marine Sciences, U. Chittagong
Prof. Md. Zafar	Professor	Institute of Marine Sciences, U. Chittagong
Mr Nurul Amin	Lecturer	Institute of Marine Sciences, U. Chittagong
Prof. Md. M.Maruf Hossain	Professor & Director	Institute of Marine Sciences, U. Chittagong
Mr Shahadat Hossain	Lecturer	Institute of Marine Sciences, U. Chittagong
Prof. Nani Gopal Das	Professor	Institute of Marine Sciences, U. Chittagong
Prof. Mohammed Ali Azadi	Professor	Zoology Department, U. Chittagong
Dr Muhammed Shafi	Chair	Department of Aquaculture and Fisheries, Dhaka University
Dr Md. Ghulam Mustafa	Assistant Professor	Department of Aquaculture and Fisheries, Dhaka University
Dr Md. Kawser Ahmed	Assistant Professor	Department of Aquaculture and Fisheries, Dhaka University
Mr Dewan Ali Ahsan	Lecturer	Department of Aquaculture and Fisheries, Dhaka University
Mr Muhmood Hasan	Lecturer	Department of Aquaculture and Fisheries, Dhaka University
Dr Abu Tweb Abu Ahmed	Professor	Department of Zoology, Dhaka University
Dr Miah Muhammed Abdul Quddus	Professor	Department of Zoology, Dhaka University
Dr Gulshan Ara Latifa		Department of Zoology, Dhaka University
Dr Aktarunnessa Chowdhury		Department of Zoology, Dhaka University
Mrs Selina Begum	Lecturer	Department of Zoology, Dhaka University
Dr Gulroo Begum Sufi	Professor	Department of Zoology, Dhaka University
Dr Md. Sagir Ahmed		Department of Zoology, Dhaka University
Dr M. Naimul Nasser	Investigator	Department of Zoology, Dhaka University
Dr Miah Md. Abdul Quddus		Department of Zoology, Dhaka University
Mr Mahbubul Alam Choudury	Businessman	Jalahabad Fish Processing Plant
Md. Gias Uddin	Programme Manager, Disaster & Environment Management Unit	Integrated Social Development Effort (ISDE) – an NGO working in the Chakaria/Cox'x Bazar area
Dr. Amrit Bart	Professor	Asian Institute of Technology (AIT)

Name	Job Title	Institutional Affiliation
Mr Samsuddoha	Senior Coordinator	COAST (NGO)
Mr. Abu Taher	Field Programme Coordinator	COAST (NGO)
Mr Duncan King	Rural Livelihoods Programme Adviser	DFID Bangladesh
Mr Martin Leach	Senior Rural Livelihoods Adviser	DFID Bangladesh
Mr Najir Khan	Project Support Officer	DFID Bangladesh

ANNEXE 5. DFID PROJECT PROGRESS REPORT   Monitoring ID :

Type of Report:

For quarterly monitoring, complete Part A and C; for annual review complete Parts A, B and C

PART A.

Country:	Bangladesh		Project:	Support for University Fisheries Education and Research
Project Officer	Najir Khan		Start Date:	October 1998
			End Date:	June 2004
Date of Visit:	November 30 – December 14		MIS Code:	
Date of Report:	December 2003		Risk Category:	

Project Budget	Spend in period under review	Cumulative spend	Forecast for current financial year
£2,450000	£709,866 (Oct 2002-Nov 2003)	£1,781,797	≈ £600,000

Goal Statement	OVIs
To sustainably and equitably manage and develop Bangladesh's aquatic resources	Wide range of beneficiaries from maintained and improved diversity and quantity of aquatic biological base

Purpose Statement	OVIs
Human resources, skills and knowledge for poverty-sensitive aquatic resource development strengthened through increased capability of universities inter-acting with sector agents to deliver quality graduates and development-linked research.	EOPI: Practical responses to poverty-linked constraints in five sub-sectors developed and applied through joint university-sectoral linkages Graduates acquire and apply improved vocational skills in priority areas of skills deficiency. University departments adopt and apply redefined objectives and goals

Outputs /OVIs	Progress		Comments
	Planned (period under review)	**Actual (including comments if required)**	**Planned for next period**
OUTPUT 1. Framework established for sectoral participation in identification, targeting and funding relevant areas of university teaching and research, interacting with regional and inter-national agents, operational by end of year 2. **SCORE: 2** **OVIs** 1.1 UGC-hosted formal co-ordination committee between universities and sector operates by 24 months 1.2 Sector networks in key themes set up to identify/address researchable constraints by 24 months. 1.3 Sectorally defined priority areas for research and training by 24 months 1.4 Regional/international collaboration in key research/teaching areas by 27 months.	» Organise a Fisheries Research Forum jointly with ICLARM-Bangladesh » Produce further issues of the newsletter » Continue to facilitate subject-specific working groups by teachers » Continue to support teachers to collaborate with partners abroad	» Fisheries Research Forum has been established, is in process of finalizing constitution » World Fish Centre has agreed to host Secretarial functions » Two issues of newsletter have been prepared since last OPR »Continued teaching and research support provided to	» Meeting of FRF planned for April '04 » One more issue of the newsletter to be prepared before EOP » Website for FRFB will be established at Dhaka University by December 2003 **COMMENTS** . » In remaining time, project should identify and pursue strategies to establish more permanent links between universities and NGOs, perhaps establishing a forum for these organizations to share research ideas and strategies for promotion of new technologies.

OUTPUT 2. Sectorally and developmentally relevant university teaching programmes established and delivered in at least 5 departments. **SCORE: 1 - 2** **OVIs** 2.1 Improved delivery and planning of teaching by at least 20 teachers by 30 months 2.2 Improved materials and facilities being used in teaching by 27 months; local teaching materials in wide use by 42 months. 2.3 Vocational content and practical training developed and being delivered to graduates in key technical, social and economic subjects in at least 5 departments by 36 months. 2.4 In 5 departments, syllabus changes in place and being taught by 30 months; curriculum development proposals complete by EoP	» Restrict further renovation work to laboratories in line with need to enhance research capability and capacity. » support further coaching in practical field course design » Give priority in the remaining teaching awards to teachers returning from overseas study » Develop an evaluation format for monitoring teaching quality » Support attendance by younger teachers at the *Strengthening Fisheries Education Syllabuses* at AIT » Continue to identify training needs	» Renovation of laboratories tied to implementation of practical field courses » Teachers that returned from overseas study received teaching awards	» The project will assist in establishing a website with SLA course materials at DU. **COMMENTS** » The project should work with universities to develop strategies to ensure that teaching quality is actively continued into the future. Newly hired teachers should be assigned mentors who have completed teaching courses to assist in developing new courses and lectures. All fisheries faculty should be exposed to livelihood concepts, perhaps in regular seminar series in the departments.

| OUTPUT 3. Core groups of staff in five universities develop interactive research capability in conjunction with poverty-targeted end users.

SCORE: 2 - 3

OVIs
3.1 Five key research themes established in university/NGO/other linked partnerships by 30 months.

3.2 Outputs from 20 participatory research projects, relevant to the needs of the poor, completed and findings distributed by EoP

3.3 Ten research proposals developed collaboratively with the sector for further funding | » Call for Concept Notes on two further environmentally-based issues.
» Conduct further participatory training on SLA for poverty-focussed research
» Host further workshops on research proposal identification
» Continue to monitor adoption of SLA
» Conduct further research proposal writing and funding mechanism workshop
» Continue programme of individual and group meetings with teachers to discuss research
» Continue to monitor awards through quarterly reports and visits to ongoing projects
» Continue to review and assess awards through the technical committee
» Monitor and evaluate changes in research quality proposals
» Continue to promote acceptance of papers on research findings by international journals and conferences

» Host further dissemination conferences | » Environmentally-based awards given, with input from GEF, MACH
» Additional SLA training exercise conducted
» PRA Training workshop conducted
» Additional training in research proposal writing, and training in research paper writing
» Continued and expanded support to researchers provided
» | **COMMENTS**
» Informal impressions of project management suggest that the quality of research awards has increased as result of the SLA training. A more formal study should be undertaken to verify this finding, and to understand the ways in which SLA training changed research proposals. |

OUTPUT 4. Longer-term strategy based on embedded change and good practice developed and accepted within sector networks by year 5 **SCORE: 2 - 3** **OVIs** 4.1 Good practice identified and disseminated in national and regional fora by month 56 4.2 Evaluation and strategy workshop delivers to sector by month 60	» Facilitate dissemination of technologies and monitor uptake by beneficiaries on-site » Develop sectoral committee through periodic meetings » Organise review of QA schemes in regional universities by faculty deans » Design and begin piloting appropriate QA scheme for Bangladesh	» Project has begun to develop a communications strategy. » Developed a range of communications materials in different media (pamphlets, radio and TV spots) » Project is supporting a QA scheme that will be piloted in the fisheries departments of the five universities. The UGC is working toward adopting the QA scheme as a part of university accreditation, which would move the QA scheme to all departments in accredited universities.	COMMENTS: » The project should undertake an assessment of communications activities carried out with project support.	

General progress assessment - **Project Purpose**	Score: 3
Justification	
The project purpose, of developing human resources, skills, and knowledge for poverty sensitive aquatic research development has been largely achieved with respect to the current fisheries faculty. Still unclear is the extent to which these capacities will become institutionally embedded within the departments.	

General progress assessment - **Project Outputs**	Score: 2
Justification	
The project is on track to deliver all of the outputs identified in the Project Memorandum	

PART B.

Purpose /OVIs	Progress	Comments
Human resources, skills and knowledge for poverty-sensitive aquatic resource development strengthened through increased capability of universities interacting with sector agents to deliver quality graduates and development-linked research. **OVIs (EOPIs)** Practical responses to poverty-linked constraints in five sub-sectors developed and applied through joint university-sectoral linkages	Project has identified priority outcome areas for research, and has provided support to a large number of research areas in each outcome area. Twelve technologies are now at the point of being ready for initial promotion in the field.	
Graduates acquire and apply improved vocational skills in priority areas of skills deficiency.	Teaching quality has been improved in the fisheries departments	It is still to early to know whether graduates have acquired and applied appropriate skills. The project is supporting an initiative of the UGC that will obtain this information in the future.
University departments adopt and apply redefined objectives and goals	University departments have improved teaching quality, and have incorporated a course on livelihoods concepts into their curricula.	

Attribution
The project is on track to provide promised outputs. These outputs seem capable of delivering the project's purpose, although well outside the timeframe of the

project itself.

Purpose to Goal

The project goal, to sustainably and equitably manage and develop Bangladesh's aquatic resources will not be achieved by the end of the project. However, the project outputs will contribute toward achieving this goal in the longer term, as current research activities move into wider promotion and adoption, and as fisheries students who have benefited from the improved teaching move into employment in the fisheries sector.

DOES LOGFRAME REQUIRE REVISION?

The logframe was modified at time of MTR in 2000. Further revisions are not necessary at this time.

DO PIMS MARKERS REQUIRE REVISION [Mandatory for projects approved prior to 1.8.98]

Extensive comments were offered on the PIMS markers in the first OPR. These do not need further revision at this point.

Quality of Scoring

The relatively low scores given for outputs 3 and 4 reflect that these outputs reflect or depend on substantial institutional changes taking place. It should be emphasized that these risks fall largely outside the scope of the project logframe, and the relatively low scores do not reflect inadequacies of project performance, but the importance of these larger institutional uncertainties.

Lessons learned, and suggested dissemination

Research directed toward improving livelihoods of poor households requires significant training of technical researchers in livelihoods concepts. A research funding agencies that includes a social development focus as a research criterion should have the necessary resources and capacities to provide this of sensitisation to potential applicants.
Research funding agency needs to develop a strategy or funding mechanism to ensure that research is multidisciplinary and that the social and technical components of the research are effectively integrated.
Research funding agency needs to develop a communication strategy to properly disseminate research findings to appropriate audiences. University researchers need to be provided with necessary support to develop appropriate materials for different audiences.
SUFER has been quite successful in promoting collaboration between universities and NGOs. NGOs can provide effective support to test and promote new technologies in the field.
University-NGO collaboration has been successful because the parties have had a clear understanding of each other's shared interests and complementary strengths in the collaboration.

PART C.

Key Issues / Points of information
The project has made significant progress in delivering outputs since the MYR of May 2003. The project is well on track to provide the outputs described in the Project Memorandum. Still at issue is whether the human capital that has been developed under project support will be sustained into the future. The PMU must turn emphasis in the remaining months of the project to develop institutional capital (changes within department operations and management, support to the BFRF) to ensure that the human capital will be preserved, and will ultimately contribute to the goal level changes of the project.

Recommendations	Responsibility	Date for completion
1. Fisheries departments establish teaching mentors for incoming faculty	PMU	EOP
2. Teachers of SLA courses identify junior faculty to teach course in future, and provide mentoring to these junior faculty on the SLA.	PMU	EOP
3. Fisheries departments organize seminar series on livelihood issues	PMU	EOP
4. Commission studies on social development aspects of new technologies	PMU	EOP
5. Continue to provide training to teachers on writing grant proposals and research papers	PMU	EOP
6. Promote involvement of more social scientists in BFRF	PMU	EOP
7. Develop tours for DoF staff to visit field sites of research being undertaken by university professors	PMU	EOP
8. Commision subsector analysis of dried fish markets in Bangladesh	PMU	EOP
9. Commission impact assessments of twelve fisheries technologies being researched with project support	PMU	EOP
10. Sponsor MSc thesis to study the effectives of university-NGO partnerships	PMU	EOP
11. Commission an evluation of the impacts of communications undertaken by the project.	PMU	EOP
12. Promote pro-poor opportunities through push-pull funding arrangements, partnership initiative funds, etc.	PMU	EOP
13. Commission an assessment of the integrated set of mollusc research awards as a strategy to integrate interdisciplinary research	PMU	EOP

Review team:	Mark Langworthy, Alan Brooks, Kazi Ali Toufique

People met:	See Annexe 4

Scoring system:
1 = likely to be completely achieved *4 = only likely to be achieved to a very limited extent*
2 = likely to be largely achieved *5 = unlikely to be realised*
3 = likely to be partially achieved *x = too early to judge extent of achievement*

Annexe 6.   SUFER Project Logframe – modified after MTR

Hierarchy of Objectives	Objective Verifiable Indicators	Means of Verification	Assumptions
Goal: To sustainably and equitably manage and develop Bangladesh's aquatic resources	Wide range of beneficiaries from maintained and improved diversity and quantity of aquatic biological base	GoB Statistics Sector Reviews Environmental Surveys	
Purpose: Human resources, skills and knowledge for poverty-sensitive aquatic resource development strengthened through increased capability of universities inter-acting with sector agents to deliver quality graduates and development-linked research.	EOPI: Practical responses to poverty-linked constraints in five sub-sectors developed and applied through joint university-sectoral linkages Graduates acquire and apply improved vocational skills in priority areas of skills deficiency. University departments adopt and apply redefined objectives and goals	Baseline study DFID monitoring reports DFID reviews Evaluation missions Training reports University literature	Sectoral demand for university outputs continues Sector maintains responsive stance to university involvement Better graduates have positive impact on institutional performance.
Outputs: 1 Framework established for sectoral participation in ident-ification, targeting and funding relevant areas of university teaching and research, interact-ing with regional and inter-national agents, operational by end of year 2,	UGC hosted formal co-ordination committee between universities and sector operates by 24 months Sector networks in key themes set up to identify/address researchable constraints by 24 mths. Sectorally defined priority areas for research and training by 24 months Regional/international collaboration in key research/teaching areas by 27 months.	DFID participation on committee Committee minutes TNA reports Evaluation missions Monitoring reports	*UGC provides and maintains suitable project environment* *Support from sectoral agents and UGC* *Interest and capability in participating in network formation and operation*
2 Sectorally and developmentally relevant university teaching programmes established and delivered in at least 5 departments.	Improved delivery and planning of teaching by at least 20 teachers by 30 months Improved materials and facilities being used in teaching by 27 months; local teaching materials in wide use by 42 months. Vocational content and practical training developed and being delivered to graduates in key technical, social and economic subjects in at least 5 departments by 36 months. In 5 departments, syllabus changes in place and being taught by 30 months; curriculum development proposals complete by EoP	DFID monitoring reports Needs assessment workshop reports Training reports Baseline survey and Institutional appraisal Evaluation missions	University maintains responsiveness to sectoral needs Better teaching will result in better quality graduates
3 Core groups of staff in five universities develop interactive research capability in conjunct-ion with poverty-targeted end users.	5 key research themes established in university/NGO/other linked partnerships by 30 months. Outputs from 20 participatory research projects, relevant to the needs of the poor, completed and findings distributed by EoP 10 research proposals developed collaboratively with the sector for further funding	DFID monitoring reports Evaluation missions Extension materials and journal publications Workshops held with sectoral agencies Research proposals submitted for funding	Links maintained and strengthened between the users and researchers Users continue to participate in research
4 Longer-term strategy based on embedded change and good practice developed and accepted within sector networks by yr 5	Good practice identified and disseminated in national and regional for a by month 56 Evaluation and strategy workshop delivers to sector by month 60	Project and participants reports Workshop documents	External factors permit universities and other agents to take up and develop recommendations

Note :additional assumptions entered for Output 1 – none present in earlier PLF

Annexe 7. Reply ToComments On Draft Sufer OPR Report

February, 2004

1. The report gives a good overview. However, the recommendations are ambitious, particularly under the current circumstances. At this stage, perhaps we need to focus on agreeing a realistic and achievable exit strategy, completing ongoing project work, and capturing lessons particularly around CGS.

The review team did consider quite carefully what can be accomplished within the remaining time of the project. The recommendations focus primarily on collecting information and lessons learned from project experiences and working to establish institutional sustainability of project activities.

Many of the recommendations have already been planned for by the project (recommendations 5, 8, 9, 10, in the exec summary). Many are proposals for studies that the project would contract externally (recommendations 4, 8, 9, 10, 11, 13). Commitment of project staff time to these activities would be limited. Recommendations 1-3 are suggestions that the project management could make to university faculty. These could be undertaken in a small number of informal workshops with faculty members and administrators.

The intention for recommendation 12 is not for the project to implement a push-pull funding arrangement but introduce this idea within its comprehensive network to try and develop a workable strategy which is attractive, sustainable and manageable for all major players.

2. We have noted with some disappointment that both the PETTRA and SUFER (although more specifically with SUFER) reviews have insufficiently highlighted the issue of whether (or indeed how) the projects are having any significant impact on influencing the broader research sector in Bangladesh. This report highlights some potentially interesting point on this

issue. But these points are embedded in the text and therefore could be lost.

All the lessons learned (1-6) are relevant to all research funding in Bangladesh, particularly in funding directed toward universities. Text added to updated draft to emphasize this point. The project may want to undertake or commission a study to find out how the project has influenced the research sector in Bangladesh.

3. The Executive summary could be a number of different sub headings. Firstly, it would be useful to have a sub heading that reflects the project wider purpose. Secondly, the summary to have sections that focus on the three strategic areas that Chris/ project highlighted as important (as in the main text).

Done, but the section on research discusses all the three strategic areas simultaneously, so not possible to break into separate headers.

4. The review team could have done more to challenge the project its vision of how and why it contributes to pro poor growth and poverty reduction. This is especially true in the commercial aquaculture section. The team seem to have accepted that cages and improving seed quality are the most appropriate areas of focus. Given the complexity of the sector, the rate of anticipated expansion and potential for growth we would argue that this is a rather limited focus. We are particularly concerned that the continued focus on cages will keep us (DFID, SUFER and cages) within our comfort zone.

Even in the best set of circumstances the development of commercial aquaculture targeting the poor will progress slowly due to their lack of resources, including working capital. As mentioned, the project does address technologies that have real and potentially significant contribution to pro-poor commercial aquaculture but this is very much an embryonic stage and if real impact was to be realised then a realistic timeline needs to be considered.

In addition to Cages and improving seed quality, commercial aquaculture can potentially develop from a number of other research initiatives (PL nursing, seabass-tilapia polyculture, pangash-carp polyculture). Two outcome areas tasked to the project overlap and this is documented. Additionally, laudable efforts in networking and promoting linkages to provide the necessary gravitas for commercial scale up is described.
It is agreed that the project does need develop a clearer vision for this research approach contributing towards commercial development.
Furthermore the mission did address the 3 points under 'pro-poor growth in commercial aquaculture section of ToR.

5. Similarly, the review team highlighted the fact that Universities have a long way to go before they can offer real services to the private sector involved with Fisheries. We think this is a critical (but not necessarily unsurprising) message. Should we be content that SUFER is not going to explore ways of promoting stronger linkages between private sector and university? We think the project should continue push both itself and the project partners out of their comfort zone. We accept that given the circumstances within the project that these comments may not now be acted upon. However, if resources are available we should be producing materials that challenge universities to become much more of a resource in the future of the fisheries sector. Specifically, highlighting the commercial incentives that exist within the sector.

The review team's concern with this suggestion is that working with the private sector will lose the pro-poor focus, and can easily lead to research that supports anti-poor strategies. In principal, the private sector should be able to approach the universities directly; they don't need the help of donors, who have commitment to address poverty problems. A follow-on strategy could consider promoting linkages between university researchers and the private sector, but the approach would have to be very carefully thought out to promote a pro-poor focus in these linkages. A more appropriate strategy would

be to promote partnerships between NGOs and private sector. (See point 17 below.)

6. SUFER has been working with UGC on quality assurance (QAS). The report does not mention who owns this process. What influence does the UGC have on the management of the Universities? We thought this is minimal at this moment. Therefore, it should be the universities that will need to drive QAS. The question is what are the incentives for change? Salary increments and promotion are only very loosely related to teaching and research performance. In the current political climate there is very little indication that this will change shortly and therefore we do not know what will drive QAS.

See additional text in last para., p. 10 of text.

7. The report points out the role of NGOs who are better informed on the needs of the poor and correctly recommends a larger involvement of the NGOs. This should have happened earlier in the commissioning progress with responsibilities for research going to the NGOs (and private sector). However, this was beyond the mandate of SUFER at early stage as the competitive fund was restricted to the universities only.

Agreed.

8. The report points out on page 11 that the 2002 OPR and 2003 MYR recommended inter-disciplinary research. The project has responded with research themes whereby individual contracts were given to researchers covering different areas of the theme. This leaves the coordination of the results to the project management which should not be its responsibility as this creates a large workload and is not sustainable. The work is not yet completed and it will be interesting to see the final outcomes of this approach.

The review team and project management do not agree with this statement. The project management has planned for the coordination

of the findings of the mollusk research team. The question of longer term sustainability depends on the future direction of research funding. The review team findings suggest that research funding must include adequate resources (funding and staff) to manage the integration of interdisciplinary research – university researchers will not do it effectively if left on their own. Composite or group research does not necessarily require external coordination but without external direction, better intra departmental linkages need to be developed by the university management

9. Page 12 mentions the role of the PMC in the development of the final proposal. This might require a lot of management time though and therefore not practical.

The review team considers this to be one of the most important lessons learned from the review project – that in the Bangladesh context, research funding agencies cannot be just passive providers of funds, but must actively support development of research proposals. Under SUFER this support was provided directly by project management, and our suggestion is that the PMC could have taken on more of this responsibility. While SUFER has moved far to increase the ability of university researchers to respond to grant proposals, it is our assessment that the university fisheries departments will still need support in developing research proposals that are broader than the narrow disciplinary fields of individual researchers. This is an important lesson for planning future support to research. Planning for ARI/BKPF must take into account this need for active support in research design. See lesson learned #1 in exec. summary.

10. On page 18, the report recommends SUFER to assess wider uptake mechanism and pathways for new technologies. Has this not been covered by the FTEP project? And where will Sufer find the expertise and time to look into this. page 23 points out that Sufer only had limited engagement with DOF. This despite the passed experience of Chris. It probably illustrate the distance between universities and DoF.

FTEP was not mandated to develop wider uptake mechanisms and pathways for new technologies. The point made on Page 18[1] merely relates to improved follow-up by the organizers (usually researchers themselves) of information dessemination events geared to promote new technologies. Presently the event takes place (seminar, rally, pamphlet distribution, TV programme) but little effort is made to find out the impact. The review team suggests this may be done by additional funding tagged on to the budget for the promotional event.

11.   Page 19: the report mentions about a push pull mechanism for project and NGOs to invest in technology. Could the mission provide a bit more detail how this would work for better understanding?

Provided in the text of the report

12.   Page 25 explains the research forum and the lack of social representation in the forum. We do not have the list of members of the forum but we expect that there will be a number of non researchers in the forum? The forum should more broadly represent the fisheries sector and the word "research" might give it the wrong steer. A group representing wider interests can also be helpful in determining research priorities for the future ARI/BKPF foundation. As part of the exit strategy Sufer could assist in determining research and extension priorities for fish that later can be adopted by the new foundation.

The BFRF does include many non-researchers (DoF, NGOs, private sector representatives). The forum to this point has had a focus on identifying and discussing important research issues within the

---

[1] *Instead SUFER should seek to find workable and agreed uptake pathways and mechanisms through a series of participatory stakeholder seminars. The push and pull idea should be embraced. The project has been tremendously successful in building linkages between a number of institutions and so it should not be too difficult to bring the issue to the fore of debate.*

fisheries sector, and interest of participants seems to be quite high. The review team would argue that maintaining this focus on research issues is appropriate, at least for the immediate future. Opening up the forum to a wider set of issues just at the time when project support and guidance will be removed would likely lead to a loss of purpose and time-consuming discussions about new direction of the forum. Interest would likely dissipate.

13.	The report rightly points out the problems of mainstreaming livelihoods and gender in the universities. There is no evidence of necessary changes in the institutions, at least not at the BAU, Mymensingh as far as we know. It will be difficult at this stage of the project to bring about lasting changes as the project has no leverage anymore in the last 6 months.

Agreed. An important concern for DFID and other donors to address in their higher-level interactions with the government.

14.	Page 31 mentions about an institutional home for the communication strategy and activities. No examples are given of such homes though. Again what will be the incentives for other institutions to take on this task?

One institutional home would be the ARI/BKPF foundation. See lesson learned no. 3 in exec. summary

15.	Page 34 mentions more workshops on writing of proposals and research papers. It would be better to identify with researchers what areas they want to work in and how this responds best to possible forthcoming donor funding either DFID or others and of course from GoB resources. Otherwise the writing will be fairly theoretical.

*The report states "the goal of the grant proposal workshop is that participants will **identify and** [added] develop specific proposals that the participants can submit to **existing** [added] funding agencies.*

16.   Page 35 mentions student internships with NGOs. This is a process financed by donor projects. Government lacks funding for this useful exercise.

True. An important message for DFID to consider in its future research funding strategy

17.   The report points out that NGOs are closely related to technological demands from the poor. SUFER has not channeled funds directly through NGOs but one of the lessons should be to provide more funding to those NGOs who represent real demand and they can contract researchers to assist in the development of technologies.

Agreed. See new lesson learned #7 in exec. Summary.

18.   Page 36: the report claims that management costs for CGS in other countries start at 15% and fall later to 8%. this seems very low. We thought that Gerry Gill in his publication claims much higher figures.

This a pers. comm. from Margaret Quin which she also presented at the Key Findings Forum but it does represent CGS in developed countries and Gerry maybe referring to situations in developing countries.

[END]