

APPENDIX 3(2)

PROJECT COMPLETION SUMMARY GUIDELINES

To accompany the Final Technical Report (Appendix 3)

DATE SHEET COMPLETED : Day\Month\Year __ / __ / __

TITLE OF PROJECT:	Understanding livelihoods dependent on inland fisheries in Bangladesh and SE Asia
R NUMBER:	R8118
DFID RESEARCH PROGRAMME:	Fisheries Management Science Programme
PROGRAMME MANAGER (INSTITUTION):	Dr. Mahfuzuddin Ahmed (WorldFish Center)
SUB-CONTRACTOR (if relevant):	<p>Partners:</p> <p>Dr N.N. Chiem, Head, Department of Environment and Natural Resources Management, Can Tho University, Can Tho, Viet Nam</p> <p>Dr. Vo-Tong Anh, Dean, Faculty of Agriculture and Natural Resources, An Giang University, An Giang, Vietnam</p> <p>Mr. Thay Somony, Department of Fisheries, Ministry of Agric, Forestry and Fisheries, Phnom Pehn Cambodia</p> <p>Mr. Xaypladeth Choulamany, Director, Living Aquatic Resources Research Center/NARI, Laos</p> <p>Mr Liaquat Ali, BCAS, House 23, Road 10A, Dhanmondi, Dhaka-1209, Bangladesh</p> <p>Mr. P-J. Dixon, Department of Anthropology, University of Durham, 43 Old Elvet, Durham.</p> <p>Dr. Kai Lorenzen, Environmental Science & Technology, Imperial College, Prince Consort Road, London SW7 2BP, UK</p> <p>Dr Ashley S. Halls, Marine Resources Assessment Group (MRAG) Ltd, 47 Prince's Gate, London, SW7 2QA</p>
FMSP PURPOSE:	<p>The new FMSP strategy aims to improve livelihood outcomes for poor people dependant upon fisheries resources. To achieve this the strategy must clearly identify the needs of target beneficiaries.</p> <p>Information on fisheries resources in Bangladesh and S.E. Asia is fragmented and has not taken account of poor people and their livelihoods. Research has been supply-led, resulting in limited uptake and gains for the non-poor. Often decisions are based on national level priorities overlooking the needs of</p>

	<p>local people, especially the poor, and thus posing a severe threat to local livelihood assets including fisheries.</p> <p>One of the main purpose of FMSP, was, therefore, to characterise the poor, identify their dependence upon aquatic resources, the nature and status of those resources, and their vulnerabilities in relation to loss or mismanagement. This is being achieved through FMSP support for participation of poor people, other aquatic resource users, and representatives of concerned organisations in identifying and prioritising research, policy and actions for improved livelihoods outcome. FFSP support would help categorize the Inland fishery environments and identify critical areas and researchable problems. The number of poor people who could benefit from potential development and research initiatives would also be important to identify.</p>
<p>PRODUCTION SYSTEM:</p>	<p>Land/Water Interface</p>
<p>COMMODITY BASE:</p>	<p>Fisheries</p>
<p>BENEFICIARIES:</p>	<p>The ultimate beneficiaries of the project are different categories of poor people (including women) in the target countries whose livelihood portfolios include a substantial dependency on fisheries and living aquatic resources. The results should be relevant to the countries in Asia and elsewhere with extensive inland fisheries. Poor people should benefit to the extent that their existing dependence on fisheries and vulnerability to changes are better understood and further research and development projects make use of this information. To the extent that fisheries management as a result of this, and subsequent research and development activities leads to sustainable small scale fisheries where poor people, men and women, can catch more fish for food, then it should benefit subsistence fishers and poor consumers. Their benefiting from the research is dependant upon the acceptance of the research findings by target uptake institutions, and action by them to address the opportunities and constraints the research identifies.</p> <p>The intermediate beneficiaries of the project are national governments and research and development organisations with fisheries, wetlands and poverty elimination interests in the region. The analysis and outcome of livelihoods analysis will enable these stakeholders to target future initiatives on removing the poor people's constraints in improving and maintaining fisheries livelihoods.</p>
<p>TARGET INSTITUTIONS:</p>	<p>i) National agencies. The governments and national agricultural research systems (NARS) of the target countries are expected to use the comparative summary of the dependence of poor people on inland aquatic resources, assessment of institutions, processes and trends, and to add more clearly a focus on poverty and sustainable livelihoods to their inland fisheries management strategies. The national partners: LARREC/NARI in Laos and Department of Fisheries in Cambodia are the relevant government agencies for taking</p>

	<p>up the outputs. Can Tho University and An Giang University in Viet Nam, and BCAS in Bangladesh are potential implementers of follow on research.</p> <p>ii) Relevant international agencies (FAO and SIFAR), regional agencies (MRC, NACA), international NGOs working in SEAsia (Oxfam, Save the Children), and development partners will be able to address the needs of poor aquatic resource users in the region. WorldFish Center has general MOUs with most of these agencies and many had participated in consultations during the course of implementing the project. These agencies will be targeted for uptake and dissemination activities through their networks and through ongoing collaborations. The Center is already a partner in other projects with most of these organisations. These projects will provide forums and networks where the current results will be shared and incorporated in as part of dissemination and uptake strategies.</p> <p>iii) The international research and development community and advanced scientific institutions, including those in UK, with poverty elimination and fisheries interests in the region are also targets for uptake and dissemination of project results.</p>
GEOGRAPHIC FOCUS:	Freshwater floodplains and other wetlands and their fisheries in Bangladesh and the lower Mekong countries such as Vietnam, Laos and Cambodia.

	PLANNED	ACTUAL
START DATE:	1-3-02	31-3-02
FINISH DATE:	31-3-03	30-4-03
TOTAL COST:	£100,987	£100,927.79

REVISE TEXT BELOW AS PER ANNEX E IN GUIDANCE NOTES FOR PMS?

1 Project Purpose:	The purpose of the project was to characterize, describe and understand the livelihood strategies of people, especially the poor, dependent upon capture fisheries (but including enhancement fisheries) in inland environments in the four selected countries in Asia. By understanding and highlighting these issues, and through consultations with the users trends, problems and potential research areas could be identified. The combination of better understanding of livelihood strategies and needs and review of existing knowledge provides a basis for improving the design of future development and research assistance for fisheries and aquatic resource sectors in these countries, and offers insights and lessons from cross country comparisons.
2 Outputs:	<p>General</p> <p>1. Compilation of all available information on livelihoods dependent on</p>

inland fisheries in target countries.

2. It is to be noted that only limited literature is available on inland fisheries in Vietnam and Laos. On the other hand, gaining access to the available information and sharing the information across various sectoral agencies are continuing challenges in Vietnam.

Fisheries contribution in national economies

3. Fisheries contribute 8-10% of GDP in Cambodia and 4% in Bangladesh. Agriculture including fisheries has contributed 24% of GDP in Vietnam and 53% in Laos.
4. Inland fishery contributes 93% to the total fish catch in Cambodia (officially this was 82,504 t in 2001 but more likely it is 400,000 t pa), 38.7% of 1,781,057 t/year in Bangladesh, 58% of total 82,873 t/year (1990) catch in Vietnam and 78% of 82,504 t/year in Laos in 2000.

Fishers livelihood strategy

5. The number of people fishing for an income is increasing in all the countries. In Laos people were fishing mostly for food, but in recent years with the improvement of the communication and preservation system, more people are involved in fishing and earning their livelihoods from fishing. In Bangladesh traditionally fishers came from Hindu community, but now many new fishers from Muslim community have partly taken their places.
6. There are very few full time fishers in Laos and in Vietnam. "Full time" fishers also do other jobs, such as agricultural labourer and petty trader in Vietnam and Laos.
7. In Bangladesh many full time traditional fishers fish mostly in open waterbodies such as rivers but they have very limited access to good fishing grounds as rich people use brushpiles (*kata*, fish aggregating devices) to enclose their own open area. Also in the northeastern haor area local fishers are not permitted to fish in the peak fishing period, even in their own land they cannot fish as fishing rights are leased to rich people who employ others to fish. During the peak fishing period in December-March local fishers depend on other jobs, such as agricultural labour or fish trading.
8. Fish traders in Cambodia, Vietnam and Laos are mainly women but in Bangladesh they are mostly men.
9. Floodplain fisheries are the main source of fish for part time fishers. In Laos and in Vietnam fishers are mainly dependent on catch from rice fields. However, use of agricultural chemicals has reduced species diversity.
10. Other aquatic resources were not so important for livelihoods 15-20 years ago as they were available in plenty. Now that they are scarce resources relative to demand and population and following conversion of wetlands to cropland, poor people report that their importance for their livelihoods increased.

Fisheries Management and Policies

Cambodia

11. In Cambodia a major part of the revenue from fisheries sector comes from fishing lots. However, fishing lot owners no longer respect the conservation clauses in their leases and do not take a long term perspective for sustainable management. The same is true in Bangladesh for jalmohals.

12. In Cambodia there is no national policy directly related to management of aquatic resources. The National Program to Rehabilitate and Develop Cambodia (NPRD) sets a cohesive package, objectives of which include establishment of law, economic stabilization and implementation of structural reforms, strengthening capacity building, fostering rehabilitation and construction of physical infrastructures and facilities, integrating Cambodia's economy into the region and the world, promoting rural development and sound environmental management, and optimizing the use of natural resources.

13. Rapid, sustained and equitable agricultural growth; and empowerment of the poor are the two main strategies for agricultural development. The first strategy is the growth-mediated approach with its main thrust to invigorate and modernize the agricultural sector, generate employment, enhance household incomes and improve the access of the less privileged to food. The second strategy is the entitlement-mediated approach which empowers farmers, rural poor and other vulnerable groups to enhance their ability to participate in the growth process. It focuses on improving these groups' access to land, water and other production inputs for sustainable livelihood, food security and overall socio-economic development.

14. Since 1979, the main policy of the Cambodian Department of Fisheries has been to sustain landings. The national fisheries policy is still concerned with managing and conserving the natural aquatic resource in order to supply sufficient food to people.

15. The fishing concession (lot) system remains the primary means by which DOF manages Cambodia's fisheries, but in 2000 it was reformed. The key elements of reform include the reduction of concession fishing lot areas and promotion of community fisheries management through the establishment of community fisheries development office and sub-decree as the legal framework for this management approach. In early 2001, 56% of fishing lot areas were released to communities, which in conjunction with local authorities will manage, conserve, develop and sustainably use fisheries resources and will have their use rights and benefits protected. However, there is no guarantee of improved management without legislative structures, funding or training to support the establishment of community fisheries in these areas. They may otherwise effectively become open access areas, leading to confusion over access rights, alleged uncontrolled exploitation and illegal fishing. Concerns have been raised that there has been undue haste to develop community fisheries in order to fill the gap after removal of lot ownership. In the absence of immediate action this could lead to problems due to poor understanding of the concepts, and lack of vital information such as maps, fish catch and stock data, fisher's need assessment and understanding of environmental considerations, together with a failure to develop and implement in a participatory way effective regulations and structures.

Vietnam

16. In Vietnam, all significant policy debate is conducted within the confines of government and party. Some policy issues include:

- The 29 points to prevent damaging actions by fishers were promulgated on **25 April 1989** under the law on the Protection and Development of Aquatic Resources. The Environmental Law was pronounced in **December 1993**.
- The rules talk about the critical importance of maintaining good water quality, the size of the aquatic resources that can be harvested, and timing for catching.
- Using credit to help the fishers change to practices that are not damaging to aquatic resources, such as changing from fishing into cage culture in the rivers and lakes is also promoted.
- The impacts of public stocking of exotic fishes in rivers and lakes, for example grass carp and silver carp in the Red River appear not to have been discussed or assessed.
- Improvement in environmental education on aquatic resources in the universities and provinces being promoted..
- Promoting other sectors, such as industry, agriculture and forestry, to use limited amounts of chemicals and to adopt sustainable models for development, for example in agriculture integrated pest management and “VAC” (*vuong, ao, chuong* or garden, fish pond, animal house) system.

27. The Vietnamese government has taken a number of decisions and measures to support aquaculture development as it increasingly recognises the contribution of aquaculture to poverty alleviation and rural development; but has tended to ignore inland capture fisheries.

Lao PDR

18. Laos has a devolved government structure where provinces enjoy a great deal of autonomy. Most government services including agriculture, fisheries and irrigation have a strong provincial base. Many decisions regarding natural resource management and local infrastructure (school, small-scale irrigation, electricity supply) are made at village level. This *de facto* autonomy is partly due to an almost complete lack of resources in central government to fund such developments or enforce rules.

19. While there is a decentralized government structure and many decisions are taken at local, district or provincial level, decisions regarding the development of large-scale infrastructure such as irrigation systems or roads are often made with very limited public participation. It is not unusual, for example, for farmers to be informed that an irrigation canal will be built across their land only at the moment the digger arrives. However, rural communities generally welcome infrastructure development and surveys have revealed very little criticism of infrastructure projects even where local participation has been lacking at the planning stage.

Bangladesh

20. In Bangladesh, all water bodies, except seasonally flooded private paddy fields and most of the manmade ponds, are owned by the Government. The Government. owned inland water bodies (rivers, canals, beels, oxbow lakes, reservoir) are known as *jalmohals* and since 1950 have been controlled and managed by the Ministry of Land (MOL) with the aim of collecting

Government revenue by leasing out fishing rights. While the Ministry of Fisheries and Livestock (MOFL) is responsible for management and development and conservation of fisheries resources for sustainable yield it only has authority over some jalmohals on MOL's terms and conditions. Since the 1970s there have been attempts to change policy in order to help fishing communities gain access to fisheries and improve their share of the benefits and to improve the sustainability of management either through limiting fishing in some way or through enhancement, but these have had limited effect.

21. Current administration of fisheries is complex. Jalmohals measuring up to 3 acres (1.2 ha) and with an annual lease value of up to Tk. 5,000 (about US\$ 80) have been open access resources since 1987, the local councils pay a nominal rent to central government for this. All closed/semi-closed water bodies (pond and closed beel) measuring 3-20 acres (1.2-8 ha) are under sub-district administration and from 1997 they have been directed to lease fishing rights to registered youth cooperatives to create income opportunities for the 15-30 year age group irrespective of their fishing involvement. Waterbodies larger than 20 acre (8 ha) are administered by the MOL through the districts and are leased by tender to the highest bidder (with a preference for fisher cooperatives). During 1986-1995 some 257 jalmohals were placed under the New Fisheries Management Policy (NFMP) implemented by MOFL, "genuine fishers" were licensed via the national fishers association, but revenue still had to increase at 10% pa, 31 jalmohals remain under this system. In 1995 flowing rivers were declared to be open access with no revenue collection, and fishing pressure has been increasing. In addition around 400 jalmohals have been transferred to the MOFL for management under different development projects of DOF, most have some form of community management. Lastly the brackishwater fisheries within the Sundarbans reserved forest are managed by the Department of Forest.

22. The Ministry of Fisheries and Livestock is the lead agency responsible for formulating fisheries policy and strategies for proper management and development of fisheries resources for sustainable fish production. Finally after long delays a national fisheries policy was approved in 1998. Under it the Department of Fisheries has responsibility for development and management of inland fisheries.

23. Amongst other agencies involved in the fisheries sector, obviously the MOL has the key role as it controls all the public water bodies. The Bangladesh Water Development Board and Local Government Engineering Department are mainly responsible for water management infrastructure; while the Ministry of Forest and Environment has responsibilities for the Sundarbans mangrove forest and for environmental protection including pollution control and some major wetlands in critical ecological areas

24. In the private sector, fisher cooperative societies and several NGOs are involved in the sector. Inland fisheries in practice are almost entirely in the hands of the private sector in the form of leaseholders (nominally fisher cooperatives but often powerful middlemen, professional leaseholders, and businessmen). The jalmohals under DOF administration are the exception and are for sustainable management through various extents of user (fisher) participation. In these there is co-management with DOF advising fisher communities and testing of systems such as fish sanctuaries and stock

enhancement.

25. In the past the Government policy for land use, water resource and agriculture was exclusively focused to grow more rice through agricultural development and ignored other uses of wetlands and floodplains such as fisheries, aquatic plants, forests, grazing, navigation, etc. The resultant flood control and drainage negatively impacted on these other uses. Realising the consequences the Government has recognized the importance of fisheries and environment in the water resource, land use, and agriculture policies recently. The national policies are well formulated but very general and overlapping and are not fully translated into strategies and action plans. The actual fisheries policies in practice are scattered and a mix of traditional short-sighted revenue orientation and well intentioned but ad hoc changes. But, the major problem is that the leaseholding interests at various levels are so entrenched in the system that they are able to overcome or manoeuvre around changes that threaten their income and power.


26. As a sample the Ministry of Environment and Forestry's environment policy is summarised:

- 1) Environment congenial for fish should be ensured through:
 - a) control of discharge of industrial and domestic untreated effluent/waste into water,
 - b) prohibition of use of harmful insecticides and pesticides in agriculture, which may pollute water and harm aquatic organisms,
 - c) waterbodies cannot be dewatered for harvesting fish.
- 2) Arrangement will be made to halt reduction of area of water bodies and for their development/reclamation as source of fish production:
 - a) water holding capacity of rivers, beels etc. can be increased by excavation/ dredging,
 - b) waterbodies to be reclaimed/developed and declared as national protected areas for fish production.
- 3) Flood control projects and other development activities which have already had a harmful effect on fish resources are to be evaluated and their environment improved for fish. Appropriate arrangements are to be made so that flow and current of natural waterbodies are not affected by roads, embankments, etc.
- 4) Ensure that fisheries development works do not create any effect on mangrove forest and other ecosystems.

Vulnerability and Trends

27. There was common agreement among all stakeholders in each country that the number and biodiversity of fishes has decreased and with it per household fishing income decreased.
28. Again a common trend was that the number of fishers has increased while their incomes from fishing decreased.
29. Main rivers and fish habitats were reported to have a high level of pollution which decreased the number of fishes as well as biodiversity.
30. Dams and embankments have restricted fish movement to and from floodplains and lakes and rivers, again affecting populations and catches according to the fishers.

		<p>31. As a result of these trends fishers have to either quit their profession or reduce their dependency on fishing.</p> <p>32. Most people dependent on fishing do not own big fishing gears. They have to depend access to such gears through the fish wholesaler/trader or other rich people who own bigger gears. Fishers are forced to sell their catch to the wholesaler at a lower price.</p> <p>33. Use of harmful gears is also common, although the gears considered harmful differ between countries.</p>
3	Contribution of Outputs to Project Goal:	<p>Have the outputs of the project been achieved? In what way has the project contributed to meeting the goal.</p> <p>The output indicators and their status are as follows: Framework and guideline on livelihood assessments prepared in April 2002 Profiles of fisheries and livelihoods derived from secondary sources prepared by November 2002 Livelihood assessments prepared through PRAs with main stakeholders completed by November 2002 Dissemination of these findings through reports xxx</p> <p>Goal Livelihoods of poor people improved through sustainable enhancement of production and productivity of land/water interface systems TO DO</p>
4	Publications:	<p>List only those published and in press i.e. accepted for publication. None</p>
5	Internal Reports:	<p>List of reports and dates. Internal planning workshop Report- April/2002 Bangladesh Country Status Report Bangladesh Country Summary Report Bangladesh Country PRA Report Cambodia Country Status Report Cambodia Country Summary Report Cambodia Country PRA Report Lao Country Status Report Lao Country Summary Report Lao Country PRA Report Vietnam Country Status Report Vietnam Country Summary Report Vietnam Country PRA Report Synthesis Analysis Report</p>
6	Other Dissemination of Results:	<p>Provide details. Under the agreements for the project the partners are responsible for holding national workshops to disseminate the findings to target institutions in their</p>

	<p>respective countries and for preparing translated versions of the country summary report and project executive summary to be printed locally and distributed to policy makers and implementers at different levels. The collaborators: Can Tho University (CTU) and An Giang University, Vietnam; Department of Fisheries (DoF), Cambodia; Living Aquatic Resources Research Center (LARReC), Lao PDR; and Bangladesh Center for Advance Studies (BCAS), Bangladesh.</p> <p>WorldFish Center is using its existing links and collaboration, for example with Department of Fisheries in Bangladesh and Cambodia working in community based fisheries management, and with provincial authorities in Viet Nam to help take up the results.</p> <p>Further target organizations include relevant international agencies (FAO, SIFAR), regional agencies (Mekong River Commission (MRC), NACA/STREAM), international NGOs working in the region (Oxfam, Save the Children), and development partners. These were included in the initial planning workshop in Phnom Penh and have been updated on the study, but it has not proven possible to hold an event to inform them collectively of the outcomes. There is a need for the national partners, the UK partners and WorldFish center to seek outlets for dissemination with these agencies through their newsletters, seminars, etc.</p> <p>National consultation workshops have been arranged in two countries: in Cambodia with the target beneficiaries and in Bangladesh with other donors, fisheries projects, NGOs, academics, and Department Fisheries. In Bangladesh the Secretary Ministry of Fisheries and Livestock and Director General Department of Fisheries and guests. Project partners and WorldFish Center have presented the summary report of the project activities. Participants gave their comments on the summary report and the summary report was revised accordingly.</p> <p>The partners in the other two countries will do the same in the coming months (delayed due to new year festivals and other commitments).</p>
7 Follow-up indicated/planned.	If strategic research, can/will the results be followed through into the adaptive phase?
8 Name and Signature of the Author of this Final Report.	<p>Dr. Mahfuzuddin Ahmed</p> <p>Dr. Parvin Sultana </p>