Mission To Shri Lanka and India to review progress and plan future inputs into BOBP post-harvest fisheries activities

5 - 18 May, 1993

by C J Bennett

Project T0454

Distribution list:

ODA

Dr J Tarbit, Senior Fisheries Adviser

SEADD

J Hansell/J Walker

British High Commission, Colombo

B Cope, Third Secretary Aid

British High Commission, Dhaka

N MacPherson, Fisheries Adviser

BOBP, Madras

T Bostock, Post-harvest Fisheries Adviser x 10 copies

NRI

J Disney, Head of Fisheries, Aquatic Resources and Food Safety Department

G Ames, Programme Manager

N Willoughby, Project Manager

A Marter, Deputy Head of Social Science Group

J Coulter, Head of Market Research and Systems Section

D King, Fisheries and Aquatic Resources Group

Natural Resources Institute

Central Avenue

Chatham Maritime

Chatham

Kent

ME4 4TB
<table>
<thead>
<tr>
<th></th>
<th>Proposal for a case study of village aquaculture in Gollaprolu village, Andra Pradesh</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td>Terms of reference for the mission reported here</td>
<td>25</td>
</tr>
<tr>
<td>VI</td>
<td>Itinerary</td>
<td>26</td>
</tr>
</tbody>
</table>
Acknowledgements

The author would like to thank the staff of "Development Innovations and Networks" Shri Lanka for their efforts during this mission. A debt of gratitude is also owed to George Mathew, Mahesh Raj and Venkatesh Salagrama of BOBP who made the Indian field visit both fruitful and enjoyable. Finally, I am grateful to Tim Bostock and Jonathan Coulter of NRI for various helpful suggestions on methodological issues.
### Abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOBP</td>
<td>Bay of Bengal Programme</td>
</tr>
<tr>
<td>IRED</td>
<td>Development Innovations and Networks</td>
</tr>
<tr>
<td>NARA</td>
<td>National Aquatic Resources Agency</td>
</tr>
<tr>
<td>NGO</td>
<td>Non Government Organisation</td>
</tr>
<tr>
<td>NRI</td>
<td>Natural Resources Institute</td>
</tr>
<tr>
<td>ODA</td>
<td>Overseas Development Administration</td>
</tr>
<tr>
<td>PRA</td>
<td>Participatory Rural Appraisal</td>
</tr>
<tr>
<td>RRA</td>
<td>Rapid Rural Appraisal</td>
</tr>
</tbody>
</table>

£1 = Shri Lankan Rupees 71.55 (May 1993)
£1 = Indian Rupees 47.65 (May 1993)
Map of Shri Lanka showing main research sites

Negombo
Colombo
Dodenduwa
Kandy
Summary and conclusions

Shri Lanka

1. Research into the bicycle and motor-cycle traders of St John's market is largely complete. The cycle traders have decided to form the "Retail Fish Traders Society of Shri Lanka" in association with the "Association of Shri Lankan Fisheries Cooperatives".

2. The programme should now concentrate on developing a strategy for wider dissemination of the insulated fish storage box and improving methodologies for understanding informal fish marketing systems. A number of recommendations are offered to achieve these objectives.

India

3. Potential post-harvest activities in Andra Pradesh were reviewed. Production of Maldive fish for the Indian markets looks promising and a strategy for implementation is recommended.

4. Efforts to assist other fish marketing activities in the region (ie, cycle traders, head-loaders and beach seiners) should proceed with caution. Clarity of objective setting and careful targeting of interventions is essential among this fragile community.

Key findings and recommendations

Overall

5. The project has gone some way toward developing methodologies for investigating and assisting the itinerant marketing of fish and fish products. However, there is a need to develop skills among field researchers and consultant staff in traders' behaviour and attitudes. As well as understanding perceptions and attitudes, the project needs to be able to answer questions quickly concerning relationships, marketing systems and the likely impact of interventions.

6. For this reason, training in Participatory/Rapid Rural Appraisal is recommended. A proposal is presented at Appendix I.

7. During the mission advice was also given on the following: the Internal Monitoring Unit (IMU), Project Frameworks for sub-projects and the Indian Market Information Database.
Shri Lanka

8. The project has completed a phase of quantitative research into bicycle and motor-cycle traders. Future research, where appropriate should concentrate on the process of technology adoption and qualitative analysis. Suggested objectives of this work are outlined at paragraph 30.

9. Immediate operational implications and recommendations for action are at paragraph 32. A list of action points for IRED is at Appendix II.

Action: IRED

10. Training in qualitative research methods (ie, Rapid and/or Participatory Rural Appraisal) is required as a matter of urgency for both BOBP staff and consultants. A proposal for training is presented at Appendix I.

Action: BOBP

11. It is recommended that the strategy for marketing the insulated fish box should include the following elements (see paragraphs 36 and 37):

a. developing links between traders' organisations and manufacturers to encourage box development;

Action: IRED

b. encouraging box manufacturers to identify and train artisans to repair and modify boxes;

Action: IRED & BOBP

12. It is recommended that the methodology being developed to understand and assist cycle traders be applied to other itinerant trading groups such as women head-loaders (box carriers) or "Pingo" traders\(^1\) (paragraph 38 refers).

Action: BOBP

13. Whilst information on income from fish trading has been gathered, there is, as yet, no indication of how this income is spent. Data suggests that income levels are relatively high. After training has been provided, the consultants should endeavour to answer this question using RRA/PRA techniques (see paragraph 39).

Action: IRED

14. It is recommended that a brief study (not a questionnaire) be undertaken to outline credit ties and linkages in the itinerant trading systems researched to date

\(^1\) "Wattiamma" in Singhala.
(see paragraph 40). Suggested terms of reference for this study are at Appendix III.

**Action:** BOBP

15. A further monitoring mission by the UK consultant Socio-economist towards the end of 1993 is recommended to review progress with adopting this new approach (paragraph 35 refers).

**Action:** BOBP & NRI

India

16. Four potential areas of activity were appraised. These were as follows:

   a. village level "Maldive" fish production;
   b. linkages between cycle-traders of fish and "Maldive" fish project;
   c. assistance to cycle trader communities, and
   d. upgrading the catches of beach seiners.

17. Maldive fish processing. Further financial analysis is recommended before trials commence to test the project's sensitivity to various market conditions, throughputs etc (see paragraph 46):

**Action:** BOBP

18. It is recommended that the BOBP marketing consultant draw up a Marketing Plan clearly outlining the proposed marketing strategy for Maldive fish (see paragraph 48).

**Action:** BOBP (Raj)

19. Local extension staff should be invited to attend the Maldive fish processing training course as observers (paragraph 49 refers).

**Action:** BOBP

20. A strategy for adoption of the technology will be developed by the project after field trials and market testing have been carried out. Initially, it is recommended that the labour for the trial be drawn from women fish

---

1/ Maldive fish, referred to as "Masmeen" or "Masi" in India and "Umbalakada" in Sinhalese, is a traditional cooked, smoked and dried tuna product, originally developed in the Maldives (Raj, 1992).
processors in the poorer sectors of the community. A suggested strategy is outlined at paragraph 51.

**Action:** BOBP

21. BOBP need to understand more about the target community before intervention occurs. Given the time constraints, a rapid rural appraisal in Uppada village is recommended as a matter of urgency (see paragraph 52).

**Action:** BOBP IMU

22. It is proposed to use local fish cycle traders to supply fresh fish to the Maldive fish project. The project should take this opportunity to field test insulated bicycle fish boxes similar to those adopted in Shri Lanka (paragraphs 53 and 54 refer).

**Action:** BOBP

23. **Cycle trader communities.** Initial research and discussions have been held in two villages, Jaggampatta and Gollaprolu. It is recommended that a brief case study be undertaken of aquaculture production (see paragraph 58). Terms of reference are at Appendix IV.

**Action:** BOBP

24. **Beach seiners.** A number of issues regarding the socio-economics of this activity should be answered before interventions are proposed. A case study is recommended (see paragraphs 59 and 60).

**Action:** BOBP

25. Problems experienced with managing and encouraging innovative social science research are outlined and some suggestions for improvement made (see paragraphs 61 to 80). These include: drawing up a guidance note on the ODA Post-harvest Project "approach" for consultants, encouraging consultants to hold workshops to discuss their findings, providing training in research methods and promoting the dissemination of research findings back to beneficiaries.
MAIN REPORT

Introduction

26. This is a report on a mission to Shri Lanka and India during the period 6 - 18 May 1993. Terms of reference for the mission and a full itinerary are at Appendices V and VI respectively.

Summary

27. The main purpose of the mission was to review a number of on-going and potential activities in the area of itinerant fish marketing and processing. Parts I and II of this report cover Shri Lanka and Indian respectively. In Part III aspects of experience with method and approach which are of wider relevance to the project are discussed.

Part I: Shri Lanka

28. The approach used to date has concentrated on understanding the operational characteristics of itinerant fish traders. At the same time a new technology, the insulated fish storage box, has been introduced.

29. While this has been successful during the initial stages in identifying recommendation domains1/, a strategy for dissemination is now needed. A departure from quantification towards institution building and creation of sustainability is now recommended. Two key strands are suggested:

a. qualitative analysis: case study work on trader families, credit relationships and entry/exit hypotheses (this can be done largely using existing data sets);

b. concentration on the process of technology adoption and encouraging spin-offs from the social cohesion that has resulted from the project.

30. The immediate objectives of this work are proposed as follows:

a. to gain access for itinerant fish traders to the resources of the Shri Lankan formal sector (ie, credit, state aid etc);

b. to enhance the social status and self-image of itinerant fish traders;

---

1/ The term "recommendation domains" is commonly used in farming systems research and refers to the use of survey information to define key aspects of the target population which will be targeted by the project.
c. to develop and test a methodology for assisting itinerant traders generally in Shri Lanka and potentially, regionally within BOBP;

d. to develop a sustainable market for insulated ice box technology, ie, including unsubsidised production in the private sector, marketing, repair and credit facilities;

e. to feed back to the beneficiaries data collected on their behalf, particularly the results of the consumer survey.

31. To achieve these objectives, a process approach will have to be internalised into the research, development, technology and group formation continuum. By this it is meant that a pro-active methodology able to change course in response to the needs and conditions pertaining among different trading groups must be adopted by IRED.

32. Operational implications are as follows:

a. the 50 formal case studies proposed by IRED at Negombo and Dodenduwa should be replaced with 5 at each site (ie, 10 in total);

b. BOBP should provide training in appropriate research methodologies to IRED staff (field researchers), ie, Participatory Rural Appraisal and Market Research, as a matter of urgency;

c. efforts to promote innovative group formation (ie, the "cluster" approach), should be supported as a priority. It is most important that experience with this method, both good and bad, be recorded to facilitate subsequent publication and dissemination;

d. individual studies of informal credit provision at different sites should be conducted (paragraph 40 below refers);

e. case studies of the family situations of itinerant traders should be commissioned to discover why this apparently high income group shows little physical evidence of this income. Careful re-working of existing case study data may reveal clues about this.

Operational recommendations for Shri Lanka

33. Information is still required on fish prices and production seasonally. Such data may be available from secondary sources (ie, Ministry of Fisheries, Department of Statistics). This information should be included in the base-line study reports.
34. The three base-line studies (Kandy, Negombo and Dodenduwa) should be combined into one report. The following sections to be included: Summary section with key findings, a list of references, and a glossary of terms and acronyms. Page numbers and paragraphs should be numbered consecutively for ease of reference. Tables should appear in the text where first mentioned.

35. Given this change in approach, the long gap between monitoring missions between Phases II and III of BOBP and the hand-over of project management in Madras to a new officer, it is recommended a further monitoring mission be undertaken by the UK consultant Socio-economist towards the end of 1993. This should be for a period not exceeding one week, including debriefing in Madras. There may be potential for combining this input with another BOBP mission.

36. **Strategy for marketing the insulated fish box.** Insulated storage box manufacture should be encouraged. This will require the following:

   a. developing links between traders' organisations and manufacturers, i.e., enabling meetings between the two to encourage box development;

   b. encouraging box manufacturers to identify and train artisans to repair and modify boxes;

37. IRED have been requested to implement links between box manufacturers and potential box users immediately. Opportunities for helping other manufacturers exist and IRED have been asked to follow-up an offer by the Fisheries Cooperative Federation to make boxes at their fibre glass plant in Negombo.

38. **Potential for extending the methodology to other itinerant trading groups.** Reports, and particularly needs assessment workshops, to date have not included head-loaders (box carriers) or "Pingo" traders\(^1\). It is recommended that the consultants be asked to present proposals for correcting this imbalance.

39. Whilst income from fish trading has been gathered, there is, as yet, no indication of how this income is spent. Data suggests that income levels are relatively high. After training has been provided, the consultants should endeavour to answer this question using RRA/PRA techniques.

40. We need to understand credit relationships between itinerant traders and traditional credit providers prior to interventions which include credit provision. It is recommended that a brief study (not a questionnaire) be undertaken to outline these ties/linkages. Suggested terms of reference for this study are at Appendix III.

---

1/ "Wattiamma" in Sinhala.
41. A check-list of immediate action points for IRED is at Appendix II.

42. Progress with the Shri Lanka fish consumption survey recommended in Bennett and Rogers (1992) was reviewed. The consultants have finished the focus group interviews and a report is awaited. Initial findings look very promising.
Part II: India

43. Four potential areas of activity were appraised. These were as follows:

a. village level "Maldive" fish production;

b. linkages between cycle-traders of fish and "Maldive" fish project;

c. assistance to cycle trader communities, and

d. upgrading the catches of beach seiners.

44. Maldive fish production. A demonstration of production of Maldive fish is proposed to be carried out in Uppada village, near Kakinada, Andhra Pradesh State. This would involve construction of a pilot plant and test marketing of the product in both India and Shri Lanka. A study of the potential market for Maldive fish (Raj, 1992) indicates that a strong demand exists in India for product of reasonable quality.

45. The lowest known price for Maldive fish in India is Rs90/kg. Raw tuna at the time of the mission was selling at the landing site for around Rs9/kg. The ratio of raw tuna to finished product is about 6:1.

46. The financial case for Maldive fish production looks good. However, further analysis is recommended including inter alia:

* sensitivity analysis to include seasonal price variations;

* adding into the calculation depreciation of capital assets (ie, replacement of buildings), the opportunity cost of land; and,

* the calculation of break-even sale prices and payback period under a number of throughput and price scenarios.

47. Initially, following production and marketing trials, the enterprise will be managed by BOBP employing local women as waged labourers. Eventually, with the help of a local NGO, this business will be taken over by the participants.

48. Marketing arrangements. The consultant is concerned that the process of getting Maldive fish to buyers in the right quantity, at the right price and at the correct quality should not be left to chance. Therefore, it is

1/ Maldive fish, referred to as "Masmeen" or "Masi" in India and "Umbalakada" in Sinhalese, is a traditional cooked, smoked and dried tuna product, originally developed in the Maldives (Raj, 1992).
recommended that the BOBP marketing consultant draw up a Marketing Plan clearly outlining the proposed marketing strategy and including information on marketing channels, institutional arrangements, transportation, presentation, price etc. This activity should be included in the Framework for the project as an indicator of achievement.

49. Institutional arrangements. It is hoped to work closely with a local NGO\(^1\) who will assist in group formation and learn about the technology. This NGO is well known in the area and has shown considerable initiative by placing field staff in the village to undertake base-line surveys at their own expense.

50. Every effort must be made to include local Ministry of Fisheries field staff in the design and operation of the project. Local extension staff might be invited to attend the training course as observers.

51. Initial technical and marketing trials of Maldive fish production will be carried out in Uppada village. Labour will be required to carry out the trial, and this should be drawn from women fish processors in the poorer sectors of the community. In order to identify these individuals the following strategy is recommended:

- a. the collaborating NGO will set up a women's cooperative from among the fish processors and women head-loaders who appear keen to form such a group;

- b. this group will then be requested to identify 10 individuals among them to be the recipients of training;

- c. the group will be encouraged to identify other social issues which can be addressed by BOBP and the NGO and will actively participate in the proposed RRA/PRA (see paragraph 52. below).

- d. initially, a wage will be paid to participants. Eventually, a profit sharing scheme will be instituted.

- e. if Maldive fish production proves profitable, the project will develop a method for privatising it as a business.

52. Given the time constraints and the need to understand more about the target community this season, an RRA of Uppada village community is recommended. This should be done as soon as possible (i.e., before the PRA training if necessary). NGO staff should be included. This activity should be done entirely in the field over a period of a week including writing a report and presenting the findings to the villagers. A copy of findings should be sent to Mr Bennett.

\(^1\) Visakha Zillah Navanirmana Parishad (VZNP).
53. **Maldive fish/cycle trader link-up.** The Maldive project will require a supply of about 200kg of tuna per day. This could be supplied by cycle traders operating out of Kakinanda beach landing. However, while this will work in the short term, in the long run, producers seem likely to by-pass cycle traders and source supplies directly from the landing.

54. During the training and trial production, 4 bicycle traders will supply fish daily to Uppada on a rotation basis. It is suggested that the opportunity be taken to try out insulated bicycle fish boxes. Traders' perceptions and opinions should be canvassed both before and after the trial. Traditional baskets could also be used for comparative purposes.

55. **Cycle trader communities.** Initial research and discussions have been held in two villages, Jaggampatta and Gollaprolu.

56. We have raised hopes among these people by undertaking widespread quantitative studies. Future research should be undertaken with caution because it is hard to see exactly how we are going to be able to help them.

57. Once the project staff have more experience using PRA techniques for understanding marketing systems, assistance to these groups should be considered again.

58. A society of cycle traders in the village of Gollaprolu has successfully begun a large aquaculture production and marketing business. This would make a good case study from both technical and socio-economic stand points. The group is keen to share its knowledge with other bicycle trader societies. It is recommended that a brief case study be undertaken describing the process, including financial, institutional, social and technical mechanisms involved. Terms of reference are at Appendix IV.

59. **Beach seiners.** It has been proposed to train members of beach seining communities in using drying racks. Such training should proceed with caution. Before intervention of any kind the socio-economic dynamics of the beach seining systems should be understood and the real needs of these communities identified. This should include:

   a. the prevailing sharing systems;
   b. patron-client relationships within communities and between seiners and traders in fish;
   c. the role of women;
   d. kinship ties;
   e. seasonality of catch and production;
   f. the economics of production.
60. These issues should be clarified before developing an extension strategy for drying rack technology. A case study approach is recommended.
Part III: Discussion of method and approach

Summary

61. The approach adopted by BOBP and IRED to identify and assist cycle traders, whilst not entirely new, contains elements of innovation. Working with itinerant traders of perishable commodities presents unique problems such as identifying beneficiaries, measuring impact and particularly with encouraging group formation. The approach is discussed below with a view to highlighting the advantages and disadvantages. A possible model for future intervention is offered.

Background

62. A group of fresh fish traders who buy fish from St John's Fish Market in Central Colombo and sell to private individuals at their homes in the Greater Colombo area were identified as potential beneficiaries of assistance by the Bay of Bengal Project. As nothing was known about this group and there was no previous experience of assisting itinerant cycle fish traders, the project undertook to develop a methodology and/or a process by which the group could be better understood and assisted.

63. A key element of the method was to use locally based NGOs and consultants to undertake research. Professional advice on technical and social-science issues was provided by NRI staff based in the UK and Madras.

64. Use of a process approach to intervention was anticipated, whereby research and change were meant to occur concurrently, with one influencing rather than leading the other. The success or failure of this method in practice is the subject of discussion here.

Discussion of the methodology

65. The approach used to date is roughly as follows:

a. Groups of possible beneficiaries have been identified during rapid reconnaissance missions. These involved visiting likely landing sites and markets early in the morning and observing the amount and type of trader activity. Brief interviews were conducted to get an indication of the likely magnitude of operation and the scope of marketing activities.

b. This was followed by "needs assessment workshops" conducted near to the place where traders buy fish. This was an open invitation to all interested parties to meet and discuss problems associated with trading. Ranking exercises were completed wherein traders were
asked to highlight a number of key issues on cards and then to place these cards in order of priority. These workshops highlighted transportation and trading aspects of fish marketing as key areas where BOBP could assist.

c. To address problems of fish quality and ice use, an insulated fish container suitable for mounting on the back of a bicycle was designed. This would replace an existing wooden/steel box. The process of designing and testing this box proved critical to the success of the project and will be discussed more fully below.

d. Having brought traders together for the first time and consulted with them on the issues likely to improve their condition, the project begun collecting data on traders to use as a base-line against which to measure project success. It was also important to have basic information on age, status, income etc so that traders could be characterised into recommendation domains. This was done in the form of a census.

e. At the same time, a case study approach was adopted to investigate the dynamics of itinerant fish trading. Individual traders were interviewed in depth against a check-list of key questions and then followed during one trading day to gain a clearer understanding of their modus operandi.

f. Finally, a monitoring exercise was undertaken with two groups of traders, one with an improved fish box and one using the traditional box. The objective of this was to quantify the possible tangible financial benefits of the new technology (ie, reduced ice loss during trading) and highlight the likely intangible benefits (ie, improved marketing image).

Discussion of the approach: advantages and disadvantages

66. In reality, the research did not occur in exactly this sequence or manner. The primary reason for this was due to a partial break-down in the "research continuum". By this it is meant that the hoped for two-way exchange of information and insights between traders and traders families, and BOBP staff and consultants did not occur to the degree envisaged when the project was designed. This continuum was assumed rather than designed into the project.

67. The linkages between researched, researchers and research managers were weak. Table 1 shows graphically how this has operated.
### Table 1: Illustration of research tasks and responsibilities

<table>
<thead>
<tr>
<th>Link in continuum</th>
<th>Task</th>
<th>Responsibility for generating insights</th>
<th>Likelihood for insights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target beneficiaries</td>
<td>Provide information &amp; insights</td>
<td>Very low</td>
<td>Very high</td>
</tr>
<tr>
<td>Field researchers</td>
<td>Collect data</td>
<td>Very low</td>
<td>High</td>
</tr>
<tr>
<td>Consultant research manager</td>
<td>Compile data &amp; reports</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Interpret findings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NGO manager</td>
<td>Review report</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>BOBP project manager</td>
<td>Monitor progress with achieving objectives</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Provide technical back-up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consultant project socio-economist</td>
<td>Advise on methods and approach</td>
<td>Very high</td>
<td>Low</td>
</tr>
</tbody>
</table>

68. Whilst field researchers spent a great deal of their time in the field interviewing beneficiaries and gaining their trust, the results of their work was not compiled in a way conducive to extracting the required insights into the working practices and needs of itinerant fish traders.

69. Apart from the false assumption made in the project design (ie, that the process approach would be adopted), the relationship between researchers and research manager proved a major block on communications within the research system.

70. Communications failed in both directions. Firstly, neither field researchers nor beneficiaries had a say in what data was collected and what methods were used to collect it. A lengthy, highly quantitative and rigidly structured questionnaire was used as the instrument of data extraction. While being useful for addressing specific issues requiring quantification (ie, income and age), this did not give any scope for researchers to ask secondary question such as why, when, how and who? Secondly, by
employing a research manager to collate and report upon data, any opportunity for discussion and debate among researchers was lost. Rigidity in this system meant that interesting avenues for research were not followed up and many useful insights not reported upon.

71. As table 1 illustrates, the research continuum was essentially hierarchical and reflected many of the norms of donor/consultant and consultant researcher relationships. Researchers were employed who were recent university graduates looking for experience. Interpretation and report writing responsibilities were placed in the hands of several experienced research managers with a track record of academic work.

72. Reports produced from the project were found to reflect this break in the information continuum. Indicators of an over quantitative approach were: heavy reliance on percentages and averages, total absence of anecdotal information, no reference to perceptions or attitudes and a general feeling that the opinions of the traders were not being communicated to those trying to help them.

73. A new framework for research is required. As a first step towards this, the author held lengthy discussion with research managers and researchers asking them to identify areas of weakness. This highlighted information which existed but which had not been brought out. It also formed the basis for a sea change in the way IRED think about cycle traders.

Model for future intervention

74. In order to address these shortcomings in approach and communications, a number of changes have been proposed. However, it should be noted that formal education in both Shri Lanka and India stresses intellectual rigour i.e., the formal identification and testing of hypotheses using scientifically and statistically proven methods. This means that in practice researchers are much more at ease with formal surveys and fixed objectives. The author recognises the difficulties experienced by researchers and research managers in adopting less rigid approaches and moving away from purely questionnaire based surveys. This presents special problems when dealing with consultant experts who are even less inclined to deviate from a fixed path as laid down in their contractual terms. BOBP should consider ways to overcome this - possibly by compiling some notes of advice to consultants describing the approach and encouraging innovation using examples from successful research conducted elsewhere (see for example Chambers 1983 and 1992).

75. At an operational level, it is important that information obtained by field researchers from their direct contact with the target group be discussed, filtered and
reported upon. To encourage this, there should be regular group sessions with researchers to discuss and report upon activities and findings. Suggestions and potential innovations should be encouraged and followed-up.

76. Researchers should be conversant with qualitative research methods such as group interviews, semi-structured questionnaires, matrix-ranking, group mapping etc. To this end, it is recommended that researchers and research manager be given training in RRA/PRA techniques and be allowed scope to develop these techniques in ways appropriate to meeting the specific objectives of BOBP. Crucial elements of this training should be gaining hands-on experience of using RRA/PRA methods and improving confidence in applying the tools to the specific problems presented when trying to understand itinerant fish traders (see Appendix I).

77. Having undertaken the training, the management of research should take on a new form, with the research manager acting as facilitator rather than rapporteur. Researchers should be encouraged to be more pro-active in their methods, responding to traders and communicating their findings effectively to BOBP.

Conclusions

78. With the benefit of hind-sight, a number of conditions might have improved the research output. Firstly, whilst objectives were clearly set, the means to achieve them were not specified in sufficient detail. If this had been done, the need for training would have become apparent. Secondly, communication at a professional level between senior IRED staff and NRI staff was insufficient as a result of staff turn-over at IRED and delays in implementing a third phase of BOBP. Finally, IRED under-valued the possible inputs available from field staff, developing a research structure which was not conducive to discussion and innovation.

79. In sum, IRED have undertaken a piece of research for the sake of doing research without realizing that the research in cycle traders lives was a means of motivating change in itself. What was intended, and indeed what has happened anyway, was that by getting traders to discuss their lives and needs a process would be started whereby they would spontaneously attempt to seek solutions to perceived problems. Thus, accidentally, a Retail Fish Trader Association has been created in Shri Lanka which will, it is hoped, address problems of access to and recognition by the formal sector.

80. In the long run it may not be the physical assistance that the formal sector (Banks, Government etc) in Shri Lanka has to offer the cycle traders that is important, but the status the association with the formal sector confers that will lead to improvement in their livelihoods. The desire of traders to be brought within the realm of the formal sector is an important intangible benefit from such
programmes of research and assistance. This lesson should be remembered when trying to target similar groups of itinerant traders within the BOBP programme.
References

BENNETT C J and ROGERS J F, (1992), "Mission to Shri Lanka to review progress and plan future inputs into BOBP Post-harvest Fisheries Activities, 26 February - 13 March 1992", NRI Report R 1813 (R), Natural Resources Institute, Chatham, UK.


ROGERS J F, (1991), "Report on a visit to Shri Lanka to investigate the use of ice on artisanal fishing boats for the ODA/BOBP Post-Harvest Fisheries Project", NRI Report, Natural Resources Institute, Chatham, UK.

SILVA E I L and WEERACKODY L P C, (1993a), "A baseline study of Retail Fish Traders Operating from Kandy Fish Market", BOBP Occasional Paper, BOBP, Madras, India.

SILVA E I L and WEERACKODY L P C, (1993b), "A baseline study of Retail Fish Traders Operating from Negombo Fish Market", BOBP Occasional Paper, BOBP, Madras, India.

Appendix I

Proposal for training in participatory/rapid rural appraisal methods

Background

1. Research into the livelihoods of itinerant fish traders using bicycles in Shri Lanka has highlighted the need for a more qualitative approach to understanding marketing systems and those involved in them.

2. Whilst formal survey methods have merit, the type of work undertaken by the ODA post-harvest fisheries project requires information behaviour and attitudes. Technical innovations and interventions need information to assess their impact but also require feedback for adaptation. As successful interventions and methodologies are extended to other areas and countries in the region, quick and simple methods of understanding beneficiaries need and amending the approach will be required.

3. Two bodies of research are relevant. One is the development of qualitative market research methods such as focus group interviews to target key areas of intervention (often referred to as recommendation domains). Another, related area is that of participatory and rapid rural appraisal (hereafter called PRA) which combines market research and sociological research methods to extract relevant information quickly in conjunction with beneficiaries.

4. It is felt that field researchers, research managers and monitoring staff of the ODA post-harvest fisheries project would benefit from knowledge of and ability to use these methods. They should then be allowed scope to adapt the methods to the specific problems presented by the projects’ key target groups. These problems include:

   . not being a physically homogeneous group (ie, only meeting at the place of fish purchase) compared with fishing communities and therefore difficult to research as a group/unit;

   . being involved in a high risk, seasonal occupation;

   . having extremely low status within the community;

5. To address these needs a course of training is proposed with the following terms of reference.

Terms of reference

6. During a two week residential training workshop the following tasks should be completed:
a. make the trainees conversant with the approaches and methods currently used by PRA and should practice these methods at least once in a real field situation (preferable in a fishing community);

b. draw up a report as a result of the field work: to be completed during the PRA by the trainees and presented to the beneficiaries for feedback and discussion.

c. In consultation with the trainees develop approaches appropriate to understanding fishing communities in general and itinerant fish traders specifically;

7. To draw up a brief guide for field-workers on the basis of the findings of the workshop.
Appendix II

Immediate action points for IRED

Box production

1. IRED should organise a field trip for around 6 'cycle traders who have received test boxes from BOBP to go to Blue Star Marine to discuss the development of the 'cycle box. This should be repeated as and when necessary during the box development period. IRED should be sensitive to requests from Blue Star Marine for advice and support.

2. At the same time, IRED should investigate alternative box production possibilities, including the Shri Lankan Fisheries Cooperative Federation boat yard at St John's.

3. In association with Blue Star Marine and in consultation with the 'cycle traders, IRED should draw up a plan for repair, maintenance and after sale service to the boxes.

Reports

4. In future, copies of reports approved by the Post-Harvest Adviser in BOBP should be passed to the following:

   a. At the ministry - Anton Atapattu, Director  
      A Hettiarachi, Director (Planning) 
      Shantha Bandara, Asst Dir (Cooperatives) 
      D A B Fernando, Dept of Cooperatives

   b. At ADB - Claude Fernando, Project Manager

   c. Fisheries Cooperative Federation

5. Comments have been provided on the Kandy, Dodenduwa and Negombo base-line studies. It is recommended that these be condensed into one volume before submission to BOBP.

Further activities

6. In-depth case studies in Negombo and Dondenuwa should cease.

7. The researchers should produce a brief report based upon the anecdotal information gathered during the case-study data gathering in St John's market. This should be completed in the vernacular and then translated and presented to BOBP in draft.
8. Having completed this exercise and received comments, IRED should conduct the same process with the existing case studies from Negombo (eight).

9. In the light of the extensive discussion during the recent monitoring visit, IRED should produce a draft concept note describing how they might investigate the women head-loaders (Wattiamma) of Negombo. This document should be passed to the Post-harvest Fisheries Adviser, BOBP for comment.

Training

10. The research manager and researchers should be ready to respond to training opportunities as and when these arise.

Time-scale

11. These activities should be completed within the next calendar month.

12. Subject to results, a programme of activities for the next year will be drawn up.
Appendix III

Proposal for a study of credit provision to itinerant cycle traders

1. During a recent mission to Shri Lanka to review assistance to itinerant fish traders under the ODA post-harvest fisheries project, a programme of credit assistance to traders was suggested. This programme, managed through a major Fisheries Cooperative is meant to provide 'cycle traders of the recently formed "Retail Fish Traders Cooperative Association" with access to credit lines under official Government and Donor schemes.

2. Before such intervention occurs, it is felt that more should be known about the existing credit facilities available to itinerant traders.

3. The area of credit provision and credit relationships is a highly sensitive one. Therefore, the approach used to complete this work must not be so intrusive as to change the existing relationships between lender and borrower. Whilst formal credit provision is proposed, this will probably not replace existing credit ties in many cases.

4. The approach should be to interview individuals or groups of traders to ascertain the following information:
   a. levels of indebtedness;
   b. frequency and scale of transactions;
   c. nominal and real interest rates;
   d. intangible costs and benefits such as lending for health or use of sub-market buying prices by lenders;
   e. perceptions and attitude towards indebtedness;
   f. levels and methods of saving.

5. This list is by no means exhaustive. Any further useful information gathered which could be relevant should be included in the study.

6. The study should include a brief review of the scope for institutional links with banks and other formal sector financial institutions.

7. The consultants should assess the need for credit provision and make recommendations based upon their findings as to how credit provision might be introduced into the itinerant fish trading community in a way sensitive to the needs of the beneficiaries, and minimizing dependency on both Government and donor assistance. Importantly, the
views of the cycle traders on how existing systems can be improved should be included in the report.
Appendix IV

Proposal for a case study of village aquaculture in Gollaprolu village, Andra Pradesh

Background

1. During a visit to the village of Golaprolu in Andra Pradesh, the consultant was shown an aquaculture business managed and run by the local Fish Cycle Traders Association. This used ponds rented from the Government, to grow tilapia for sale on the Calcutta fish market. The Association has 68 members who each received an income of Rs2,000 in the first year of operation.

2. The group currently farm 4ha but are seeking leases on a further 10ha of ponds.

3. The experience of this group in gaining access to and successfully exploiting communal water bodies within their villages may be replicable in other communities in India. The business of aquaculture is particularly suitable for itinerant fish traders because of their proven entrepreneurial skills and because they see no stigma to handling fish.

Proposal

4. A brief case study is proposed with the primary objective of learning from the successes of Golaprolu village;

Terms of reference

5. During two weeks in the field the Consultant should:
   a. describe the production and marketing of fish produced in Gollaprolu;
   b. characterise the social status of fish traders before they started aquaculture and since to highlight any potential areas of tension within the community which have resulted from their success;
   c. describe in detail the process of fish production, highlighting the reasons for each method adopted and paying particular attention to indigenous technical knowledge when shown.

6. These communities are complex and highly stratified. An important objective of this research would be to understand how the process operates without interfering in any way with the role/position of the 'cycle traders in the community.
Appendix V

Terms of Reference for the mission reported upon here

1. The Consultant will review and evaluate the activities of Innovations Development et Reseaux (IRED) carried out under contract to BOBP during the last year. Specifically, this will include:

   a. socio-economic baseline study: a draft report was submitted to BOBP early in 1992. This had a number of shortcomings which were reported to and discussed with IRED, who agreed to revise and resubmit by end April 1993. The Consultant will discuss the re-drafted report with IRED and contracted field staff making any recommendations with regard to a more comprehensive presentation of survey data.

   b. cycle carrier monitoring survey: a draft report was submitted to BOBP in March 1993. The Consultant will advise IRED on any improvements required in the reporting format, data presentation and conclusions drawn.

   c. group formation activities: advise IRED on current methods being adopted to stimulate group formation among petty traders.

   d. future work: in discussion with IRED and Ministry of Fisheries, the Consultant will present any recommendations for further inputs by BOBP and modifications required to the existing Sub-project Framework.

2. In liaison with IRED and NARA, the Consultant will review the activities of Lanka Market Research Bureau in the Fresh Fish Market Research Study currently being implemented under contract to BOBP, providing advice, where necessary, on research methods which would facilitate the desired outputs.

3. The Consultant will, in addition, visit India in order to:

   a. debrief BOBP's Post-harvest Adviser on achievements in Shri Lanka;

   b. visit Andhra Pradesh to appraise a proposed new sub-project to assist petty traders operating near Kakinada;

   c. advise BOBP's newly established internal monitoring unit (IMU) on survey methodology and interpretation.

4. A report of the entire visit will be presented 2 weeks after return to UK.
## Appendix VI

### Itinerary

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/5/93</td>
<td>Arrive Colombo</td>
</tr>
<tr>
<td>7/5/93</td>
<td>IRED</td>
</tr>
<tr>
<td></td>
<td>Sunimal Fernando, International Director</td>
</tr>
<tr>
<td></td>
<td>Chamindra Weerakody, Regional Coordinator</td>
</tr>
<tr>
<td></td>
<td>Ivan de Silva, Consultant Research Manager</td>
</tr>
<tr>
<td></td>
<td>K L A Kithsiri, Field Researcher</td>
</tr>
<tr>
<td></td>
<td>B J Cyril, Field Researcher</td>
</tr>
<tr>
<td></td>
<td>Andumueil Silva, Field Researcher</td>
</tr>
<tr>
<td></td>
<td>Athula Premasiri, Field Researcher</td>
</tr>
<tr>
<td></td>
<td>Bostock arrives Colombo</td>
</tr>
<tr>
<td>8/5/93</td>
<td>Lanka Market Research Bureau</td>
</tr>
<tr>
<td></td>
<td>Nihal de Silva, Research Director</td>
</tr>
<tr>
<td></td>
<td>IRED</td>
</tr>
<tr>
<td></td>
<td>Ivan de Silva, Consultant Research Manager</td>
</tr>
<tr>
<td></td>
<td>Chamindra Weerakody, Regional Coordinator</td>
</tr>
<tr>
<td></td>
<td>National Aquatic Resources Agency</td>
</tr>
<tr>
<td></td>
<td>V Jayaweera, micro-biologist</td>
</tr>
<tr>
<td>10/5/93</td>
<td>British High Commission</td>
</tr>
<tr>
<td></td>
<td>Brian Cope, Third Secretary Aid</td>
</tr>
<tr>
<td></td>
<td>St John's market, consultative meeting with a</td>
</tr>
<tr>
<td></td>
<td>sample of fish traders</td>
</tr>
<tr>
<td></td>
<td>M B Fernando, Secretary of the Shri Lankan</td>
</tr>
<tr>
<td></td>
<td>Fisheries Cooperative Federation Limited</td>
</tr>
<tr>
<td></td>
<td>D A D Fernando, Ministry of Fisheries</td>
</tr>
<tr>
<td></td>
<td>Shantha Bandara, Assistant Director</td>
</tr>
<tr>
<td></td>
<td>Cooperatives, Department of Fisheries</td>
</tr>
<tr>
<td>11/5/93</td>
<td>Negombo landing sites</td>
</tr>
<tr>
<td></td>
<td>IRED</td>
</tr>
<tr>
<td></td>
<td>Shri Lankan Fisheries Cooperative Federation Limited</td>
</tr>
<tr>
<td></td>
<td>M D Fernando, Secretary</td>
</tr>
</tbody>
</table>
Ministry of Fisheries, Department of Fisheries and Aquatic Resources

Claude Fernando, ADB Project
Leslie Joseph, BOBP Consultant
Anton Atapattu, Director of fisheries & Aquatic Resources

IRED, wrap-up meeting

12/5/93  Colombo - Madras: Air
Madras - Kakinada: Train

13/5/93  Arrive Kakinada

BOBP
George Mathew, M&E Consultant
Mahesh Raj, Marketing Consultant
Venkatesh Salagrama

Visakha Zillah Navanirmana Parishad
A L Narasimha Murthy, Secretary

Uppada Fishing Village, Jaggarajupeta hamlet
Veerabadram, Min. of Fisheries Ext. Officer
Nakka Somana, Co-operative Society President, Jaggarajupeta
Krishnamurthy, Petty Yard Officer
Fisherwomen

14/5/93  Kakinada Beach Landing, 'cycle traders and head-loaders
Kakinada Beach, Beach Seiners
Kakinada Fishing Harbour
'cycle traders

15/5/93  Gollaprolu village
Kakinada - Madras

16/5/93  arrive Madras

17/5/93  BOBP office

18/5/93  Depart to UK