

POST HARVEST FISHERIES REVIEW OF LOSS ASSESSMENT RESEARCH IN WEST AFRICA

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Summary and Conclusions

The available reports of the fieldwork and use of the tools in each country prepared by the country co-ordinators were reviewed by a post-harvest fisheries specialist, the project leader for R7008 and R5067. A checklist of key indicators was used to guide the review (see Appendix). This was used to decide how each method had been used and what lessons could be learnt and fed into the finalisation of the field manuals.

A review of the reports and the way in which the methods have been applied and described would not be complete without an understanding of the other issues, which may have influenced the use of the methods. The reports show that there are similarities and differences in how the methods have been used by each team. The main and obvious reasons for these differences, which are likely to be inter related and effect motivation and performance are:

- Co-ordinator skill and experience
- Team skills and experience
- Training course
- Language of training
- Administration of the resources to the co-ordinators after training
- In-country support

The combination of these factors has been different for each country as shown in Table 1 below:

Table 1

	Côte d'Ivoire	Senegal	Ghana	Nigeria
Co-ordinator	University Doctor Geographer	Post harvest specialist Worked independent of govt employer	Original co-ordinator pulled out after training Replaced by Agriculturalist PRA	Post harvest specialist With national research institute
Team	University Students Literate Male and female	Fishermen, processors Mostly illiterate Male and female	Processors Semi-literate Female and Male	Fishermen, processors, trader, NGO Illiterate and literate Male
Training	First course conducted by NRI socio-economist and post-harvest specialist	Second course conducted by NRI post-harvest specialist and co-ordinator. Main focus was on the Informal method due to illiteracy of team.	Polished third course, involved NRI socio- economist, post- harvest specialist and local PRA expert Re training required for replacement co- ordinator	Final and most polished course, involved NRI socio- economist and post- harvest specialist
Language	French	English to French to Wollof	English plus local languages	English plus local languages
Administration	Shortest time lag between training and fieldwork starting	Delay in releasing funds and not all funds released when needed	Slight delay in releasing funds	Delay in releasing funds
In-country support	Available	Not available/used	Some availability	Not applicable

Some of these factors or combination of them have had some influence on the use and reporting of the methods and the implementation of the fieldwork. The Côte d'Ivoire team demonstrated a better use of the Questionnaire method than any of the other teams. This is most likely related to their education level and previous experience in using formal survey methods. The training in Senegal involved at times two levels of translation and because of the literacy level focussed on the Informal Method more than on Load Tracking and the Questionnaire. This combined with funding problems has been reflected in the achievements of the Senegal team.

Table 2 summarises the reports reviewed and reflects the use of the three methods by each team. Where follow-up is required is shown.

Table 2

	Informal	Questionnaire	Load Tracking
Côte d'Ivoire	Minor clarifications needed before dissemination	Calculations need to be re-done and other clarifications required before possible dissemination.	Clarifications and further information required before possible dissemination.
Senegal	Much information required before possible dissemination	Not used as recommended.	Not used as recommended.
Ghana	Minor clarifications needed before dissemination	Clarifications and further information required before possible dissemination	Clarifications and further information required before possible dissemination
Nigeria	Used well and could be disseminated after editing.	Clarifications and further information required before possible dissemination	Used well (Magbon Alade) and could be disseminated after editing. Clarifications and further information required before possible dissemination (Lake Chad)

Table 3 summarises the results of the review by country and by method. It highlights the positive and negative aspects related to the use of the methods. The negative issues are highlighted in bold. The following review summary, which concentrates on the lessons that can be learnt from the use of the methods in the four countries, is based on the contents of this table.

The Informal Method

The Informal method was used by all four teams. The research in the four countries has generated a wealth of relevant qualitative information on post-harvest losses. This is now documented in project reports. The research and review confirms the Informal method is a useful tool for generating data on the following:

- Reasons why people incur loss
- Seasonality of loss
- Correlation between loss and variables such as quantities of fish landed, fishing gear, species
- Ideas for loss reduction
- Perceptions of loss by those affected

The Nigerian report presents a good description of the method as used and a wealth of useful data. It also shows how a variety of data collection tools, including case studies, can be used in an informal survey. The report also recognises biases and the use of direct observation to triangulate data.

The Côte d'Ivoire work describes a well planned introduction to the communities and how data was cross checked by feeding back initial fieldwork findings to communities. In addition the Ghana report highlights the usefulness of the Informal method in planning when to conduct Load tracking or Questionnaires. It also indicates that semi-structured interviews should ideally be made as short as possible. The Côte d'Ivoire and Ghana reports provide an element of description of the method as used, but key issues are not covered.

The reports highlight several lessons learnt from the research and a need to put extra stress on certain issues in the manual or during any future training activity. These issues are:

- The usefulness in describing in a report how indicative loss levels were derived - whether loss levels are derived from semi-structured interviews or by use of another tool. Who the data refers to and whether the loss is a maximum, seasonal, and how frequent it occurs. Without such an understanding the reader is left in doubt as to origin of the data and the conclusions that can be drawn from it.
- A clear realisation that bias exist and that these may affect the applicability of the data. This should be described when reporting the results of an Informal survey.
- The importance of describing team responsibilities – who did what when, who took notes, who interviewed. The inclusion of an itinerary in a report. These will help the reader and user of the data and information understand what happened in the field and how the data was generated.
- Whilst not absolutely necessary the presentation of raw data (field notes) may add-value to a report to secondary stakeholders.
- A description of the type and number of interviews conducted and the people who were interviewed would help the reader.
- The importance of describing whether data was triangulated, and if so how this was done.
- How different tools were used should be described.
- Clear description of loss and related variables, if data is available.

A conclusion from the review is that the manual should include a reporting template to assist the users of the method to present, in an effective, systematic, consistent and clear manner, the resultant data and a description of the methodology.

The Senegal report shows that much more information is required on the research before conclusions can be drawn or the data could be used or published. Nevertheless, there is anecdotal evidence that suggests that the implementation of the fieldwork led to awareness raising among the community concerned regarding the relevance of post-harvest losses.

There is scope to communicate with the co-ordinators of the Côte d'Ivoire, Ghana and Senegal research requesting additional information, which would clarify certain issues and add-value to the reports and work done.

At present the data for Nigeria could be disseminated with confidence. The data for Côte d'Ivoire and Ghana requires relatively minor clarifications before it could be disseminated and the Senegal report needs the most amount of additional information and work.

Table 3 Summary of Key Issues From Post Harvest Review

Country	Informal	Questionnaire	Load Tracking	
Côte d'Ivoire	<p>A useful insight into the reasons why people incur losses at the fishing, processing and marketing stages (ME).</p> <p>Seasonality of loss is described and a possible correlation between loss level and quantities of fish landed (ME)</p> <p>Useful observations on the limitations of the methods are made in the November 98 report (ME).</p> <p>Well planned introduction to communities (ME)</p> <p>Solutions to losses identified (ME).</p> <p>Data cross checked and firmed up by a process of feeding back initial findings to the communities (ME)</p> <p>Description is needed of who, when, where, how often, how was it generated and how the loss levels were calculated (MP + F).</p> <p>No indication of how loss level data in the February 98 report is calculated and origins of the data (MP+F)</p> <p>From data presented in tables 5 – 7 of November 98 report it is difficult to see how the % total loss figures have been derived.</p> <p>The tables should be made simpler or a clear description of how calculations have been made presented (MP).</p> <p>Possible consequences of relying on group interviews for data should be mentioned in the report (MO)</p>	<p>Applied systematically and included a pilot study (ME).</p> <p>Data analysis procedure is described (ME).</p> <p>The quality and total loss calculations presented in the November 98 report have not been carried out as recommended by NRI or FAO. Need to redo the questionnaire calculations for Phase 2. It is not clear in either report how the calculations for Phase 1 were done. These should be checked, the method of calculation described and the results re-calculated if need be. (MP)</p> <p>Not clear how sampling was conducted for questionnaire interviews (MP).</p>	<p>Not clear how value of quality loss calculated nor how losses are calculated in general for Load Tracking. Needs to be better description of means of calculation (MP).</p> <p>Lack of description of method as used and how loss was recorded/measured and by whom. Not clear what sampling method was used – was a sub-sample sample of fish taken or, as it looks the case, a batch of fish tracked (MP).</p> <p>Data for 28 loads tracked in Phase 2 shown in table form. More analysis of this data could be undertaken at the moment the focus is on average loss values (MO).</p> <p>November 98 report load tracking data presented in table 11 do not reflect that presented in table 9. No quality loss is recorded in table 9 yet a figure is shown in table 11?(MP)</p>	<p>Quantitative data on loss levels in the November 98 report for Phase 1 different to February 98 report. The table and figure layout remains the same but the data for PRA is now that of Load Tracking. The data for Load Tracking is that of the questionnaire and the data for the Questionnaire is now that of Load tracking. After recalculating as above, the correct data presented should be presented in the Nov 98 report (MP).</p> <p>The quantitative data in the Discussion of the November 98 report does not always tally with that presented in tables 11 and 12. This is confusing and needs correcting (MP).</p> <p>It is not clear what the loss data in the reports refers to – is it the time of the survey, last year, average data, the data from an individuals last trip or batch (MP)?</p>

Senegal	<p>Interesting qualitative conclusions regarding use of method (ME).</p> <p>Interesting background information. This could have been generated from use of the method, but may be from another report/references (ME/MP).</p> <p>Method is poorly described and no clear indication of what data was generated as part of this project (MP).</p> <p>Presentation of the raw data – for each group interview – even in note form would, give the reader a better understanding of what went on and confidence that the method was used and how it was used (MP).</p> <p>Much information is required on how method was used, who interviewed, who took notes, the raw data and an analysis (MO/MP).</p>	<p>Interesting adaptation of the method in which the questionnaires used in a less formal way and adapted to be used in a semi-structured interview context (ME).</p> <p>Interesting conclusions on the drawbacks of the method are given (ME).</p> <p>poorly described leading to the assumption that it was not applied properly for whatever reasons (MP).</p> <p>The method does not seem to have been well understood. The data as it is presented is meaningless (MO).</p> <p>Method has not been used properly. It would have been much more useful if this was stated in the report along with the reasons (MO)</p> <p>Time and effort involved in follow up not worthwhile.</p>	<p>Used in a novel way. Cost and income data gives a revealing insight into the sector. This data could be the saving grace of this research.(ME)</p> <p>The novel approach to load tracking relies on interviews with traders rather than on direct observation. There is a risk the data is not reliable. (MO)</p> <p>More information on how the method was used is required in order to decide what the bias are. And how reliable the data is (MP).</p>	<p>Appears to have been little effort to address the comments made on the first phase of work and no second phase undertaken. appears to be a general lack of co-operation by the co-ordinator for whatever reasons (MO – motivation).</p> <p>In-conclusive piece of work, not clearly presented, confusing and with many gaps (MP).</p> <p>Unless more information is forthcoming then the loss level data should not be quoted. It is likely to be indicative at best. Other background information and data on the reasons for loss and the load tracking data could be presented in a revised format, once further information on how the methods have been applied and what data refers to which method is known.(MP)</p>
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<p>Nigeria</p>	<p>The PRA report provides data on the variables which influence loss, such as the loss variation according to fishing gear type, engine used or not, distance from fishing grounds and species (ME).</p> <p>The report:</p> <ul style="list-style-type: none"> • recognised the potential bias as a result of team composition. • triangulated data especially using direct observation. • showed good use of a variety of tools including case studies. • Demonstrate good use of the draft loss assessment manual from R5027.(ME) 	<p>Information is missing on key issues such as: sampling method, number of interviews, the analysis procedure and calculations. Unless information is made available on these issues then it is difficult to draw any useful conclusions regarding the survey or the results (MP).</p>	<p>Present results in a simple clear tabular format. The Magbon Alade report gives the reader a good understanding of the experiment. The use of calculations in both reports gives the reader confidence in the research process and that the author understands the subject.(ME)</p> <p>Use of economic loss in the lake Chad work is confusing and generally the Load Tracking work emphasises the need for a clear standardisation of definitions, calculations and presentation of results (MP).</p> <p>Information is especially required on:</p> <p>Sampling method - how were the fish/cartons chosen? Size of fish?</p> <p>Quality of fish before transport</p> <p>Who was involved, who assessed quality, how physical loss was measured, packaging method, transport method and time, date of work. (MP)</p>	<p>Spell checking. It would benefit from a summary which included a table of key data such as estimated loss levels, who incurred loss, reasons for the loss, whether the loss is seasonal. (MP)</p> <p>A section on lessons learnt, advantages and disadvantages of the informal method would also be useful.</p>
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<p>Ghana</p>	<p>The work highlighted clearly a number of lessons learnt, advantages and disadvantages of each method. These include:</p> <p>Need to keep semi-structured interview short (ME)</p> <p>Importance of a proper introduction to the community (ME)</p> <p>Informal method is useful to identify when it is appropriate to apply LT and Q (ME/MO).</p> <p>Carefully planned with appropriate checklists produced . includes the following important data: reasons for loss, seasonality of loss, ideas for loss reduction and perceptions of loss in the fishing and processing/marketing sectors (ME)</p> <p>Not clear whether group or individual interviews were conducted, how many and who with. And therefore it is difficult to tell how representative the data is (MP).</p> <p>Furthermore, there is no indication of how data was cross checked. Observation could have been used, but has not been mentioned as tool.(MP)</p> <p>Data on loss is given but for fishing it is not clear whether it relates to a certain type of fishing gear or not (MP). Seasonality although mentioned is not explained in detail (MP). Nor is the relationship between species and loss (MP). These two important issues could have been explored using a seasonal scoring matrix.(MP)</p> <p>The potential to undertake calculations was there, but they weren't done. It was said that it was difficult to do this. More information on the difficulties would be useful (ME/MP).</p> <p>Who were interviewed and was this groups or as individuals. What data cross checking mechanism was used, if any (MP).</p>	<p>The results are clearly shown - only one basket from 244 was sold for a reduced price, no physical losses, 19 baskets for home consumption. 52% of respondents had not gone fishing, losses are low because the volume of fish landed makes it easier to apply better handling practices. However, it is not clear what species of fish the data refers to are.(MP)</p> <p>No information on sampling method or size of population. Although from PRA data can be extracted.(MP)</p> <p>Likewise 50 fishermen and 50 processors were interviewed, however, it is not clear whether they were actual fishermen or canoe owners, unit owners or actual workers (MP).</p> <p>No information on the way in which the raw data has been analysed. What software – if any was used. This is important as it will enable conclusions to be drawn on the reliability and accuracy of the data (MP).</p> <p>The survey covered the last landing within the previous 14 days during a time of low catches. Although the questionnaire states the period was the last 7 days? There is some confusion here. There also seems to be confusion about physical and quality loss (MP).</p> <p>Why was illiteracy a problem as eos were not required to write anything? Would translating it into the local language have helped(MP).</p> <p>How was the informal method used in the design, if at all(MP).</p> <p>What was the period used for fishing – last 14 days or last 7 days (MP).</p> <p>Seems to be a confusion about physical and quality loss. Fish for home consumption has also been classed as a loss. Details of table headers: axc, bxc, fxc, is required (MP).</p> <p>Post-smoking, only data for the 575 of good quality fish is given. It is not clear what happened to the three baskets of low quality fish. (MP)</p>	<p>PRA was put to use to develop good demerit score sheet. And loss was measured at key stages in the chain. It was clear that what little loss in quality did occur was due to breakage (ME).</p> <p>Only conducted once and samples were given preferential treatment. no data on the time/temp history of the fresh fish prior to assessment at the landing stage. (MP)</p> <p>Not clear how and who planned the exercise (MP)</p> <p>The report is not clear on whether the same sample of fish were used throughout.(MP)</p> <p>A figure of 6.2% is given as the loss at trading level, there is no indication of how this figure has been derived.(MP)</p>	<p>Report is clearly written and presented as well as easily understood (MP).</p>
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ME – could be used as an example of how, MP – something which needs to be elaborated on in the manual so that not done by others especially to do with presentation may involve turning a negative issue into a positive one, MO – key point to be stressed

Questionnaires

The Questionnaire method was used with varying degrees of success by three of the four teams: Côte d'Ivoire, Ghana and Nigeria. The Côte d'Ivoire reports provide a good description of the use of the method and the data analysis procedure. However, it is not clear how sampling was conducted and the loss calculations have not been carried out as recommended.

An understanding and therefore an assessment of the work done in Ghana and Nigeria is hampered by a lack of information on certain key issues. The lessons that can be learnt and which should be stressed in the manual and future training are as follows:

- Reporting should include a clear description of the sampling method used and the number of interviews.
- The interviewees should be clearly described e.g. were they fishermen who actually went fishing?
- The analysis procedure, software used and calculations should be clearly described
- Definitions of loss need to be made clearly and standardisation emphasised.

It is not possible to judge the statistical validity of the questionnaire data of the Ghana and Nigeria teams without further information. There is scope to communicate with co-ordinators in three countries requesting further work and clarifications. The Senegal team was unable to use the Questionnaire and this is most likely related to the skills and experience of the team and co-ordinator.

None of the data should be disseminated or published until further information or clarifications are received from co-ordinators.

A separate review of the Questionnaire work has been carried out by a Biometrician and the results of that should be used in parallel with this review.

Load Tracking

Load Tracking evolved over the course of the project from a structured and set data collection process to a more tailored, flexible approach which included a clear planning element. Overlap and links with the Informal method became clearer. The principal of Load Tracking is the recording of data on a sample of fish as it travels through the distribution chain. This involves direct observation of quality and variables which influence loss levels. In Côte d'Ivoire, Ghana and Nigeria this principal was adhered to. The work in Senegal shows (indicates) a reliance on interviews with traders rather than real time data collection. The novel approach used by the Senegal team has generated detailed information on the costs and income of a fresh fish transport business, however, the reliability of data on business gleaned from interviews is often questionable.

The report of the Magbon Alade research in Nigeria gives a good description of the use of Load Tracking and the data it can generate. This work could be used as a case study. There are gaps in the other reports which lead to a lack of understanding as to how the method was used and how results data and results on loss were derived. The following are the key lessons learnt which should be reflected in the manual and in any future training:

- There needs to be a clear description of how any loss calculations are made.
- The method as used should be described fully. Key issues are the planning process and who was involved, sampling method, how was quality assessment done – when and by who.
- There is a need to standardise definitions, calculations and the presentation of results.
- Data on key variables such as packaging, handling, transport method and time temperature, which influence loss, should be recorded and presented.

A standardised report template could be developed and included in the secondary stakeholder manual.

There is scope to communicate with co-ordinators requesting further information and clarifications which would add value to the available information/reports. And lend confidence in the data and conclusions regarding losses.

At present the Magbon Alade report could be disseminated. Further information or clarifications are required before the Ghana and Côte d'Ivoire reports are disseminated. The novel data generated by the Senegal team will be a useful output once more information about the way in which it was derived is known.

Summary By Country Team

Côte d'Ivoire

Two reports were reviewed: Evaluation of Post-harvest Losses in Artisanal Fisheries (February 98) and Tools and Methodology Developed for the Evaluation of Post-harvest Losses in the Artisanal Fisheries of West Africa (November 1998). The reports provide a useful insight into the reasons why people incur losses at the fishing, processing and marketing stages at selected sites in Abidjan. The seasonality of loss is described and a possible correlation between loss level and quantities of fish landed is mentioned. Useful observations on the limitations of the methods are made in the November 98 report.

A well planned introduction to the communities is described. Solutions to overcome losses have been identified and data generated by the informal method was cross checked and firmed up by a process of feeding back initial findings to the communities concerned.

The questionnaire method appears to have been applied systematically and included a pilot study. The data analysis procedure is described. Repetition of Load tracking has been demonstrated.

The research has provided a number of useful lessons and examples which could be fed into the finalisation of the manuals.

A number of issues of concern have been identified which will need to be addressed before the data is to be used in publications other than internal project documents for restricted circulation.

- **Description is needed of the quantitative data derived from PRA – what the data refers ie who, when, where, how often, how was it generated and how the loss levels were calculated.**

There is no indication of how the informal loss level data in the February 98 report is calculated and the precise origins of the data.

From the data presented in tables 5 – 7 of the November 98 report it is difficult to see how the % total loss figures have been derived. The tables should be made simpler or a clear description of how calculations have been made presented.

- **The quality and total loss calculations presented in the November 98 report have not been carried out as recommended by NRI or FAO. There is therefore a need to redo the questionnaire calculations for Phase 2. It is not clear in either report how the calculations for Phase 1 were done. These should be checked, the method of calculation described and the results re-calculated if need be.**

For example - Phase II fishermen

Total loss is given as 7% but should be 2.9%

1275 kg of fish caught, price of good quality = 154 CFA
value = 196,530

physical loss = 11 kg = 11 x 154 = 1694 CFA.

Quality loss = 99 kg = 99 x (154 – 114) = 3960 CFA

Quality loss = 2%

Total loss = 1694 + 3960 = 5654 CFA

$5654/196,350 = 2.9\%$

- *It is not clear how the value of quality loss is calculated nor how losses are calculated in general for Load Tracking. There needs to be an elaboration of the means of calculation.*

Lesser issues which should be addressed are:

The quantitative data on loss levels in the November 98 report for Phase 1 is different to that of the February 98 report. The table and figure layout remains the same but the data for PRA is now that of Load Tracking. The data for Load Tracking is that of the questionnaire and the data for the Questionnaire is now that of Load tracking. After recalculating as above, the correct data presented should be presented in the Nov 98 report.

In the November 98 report the load tracking data presented in table 11 do not reflect that presented in table 9. No quality loss is recorded in table 9 yet a figure is shown in table 11?

The quantitative data in the Discussion of the November 98 report does not always tally with that presented in tables 11 and 12. This is confusing and needs correcting.

The informal method indicates a reliance on group interviews. The possible consequences of relying on group interviews for data should be mentioned in the report

It is not clear what the loss data in the reports refers to – is it the time of the survey, last year, average data, the data from an individuals last trip or batch?

Not clear whether PRA was used to develop the questionnaires.

Not clear how sampling was conducted for questionnaire interviews.

*There is a lack of description of the method as it was used and how loss was recorded/measured and by whom. Not clear what sampling method was used – was a sub-sample sample of fish taken or, as it looks the case, a batch of fish tracked.
(Rep 1)*

Data of the 28 loads tracked in Phase 2 are shown in table form. More analysis of this data could be undertaken at the moment the focus is on average loss values.

Senegal

Feedback was given on the first report and work and a second phase envisaged. The latter was initiated by Josphe Ndenn. There appears to have been little effort to address the comments made on the first phase of work and no second phase undertaken. There appears to be a general lack of co-operation by the co-ordinator for whatever reasons. Which has led to the following conclusion.

In-conclusive piece of work, not clearly presented, confusing and with many gaps. Unless more information is forthcoming then the loss level data should not be quoted. It is likely to be indicative at best. Other background information and data on the reasons for loss and the load tracking data could be presented in a revised format, once further information on how the methods have been applied and what data refers to which method is known.

Refer to comments on the first report of July 98 and whether these have been addressed.

it would be good to have more information on the three loss assessment methods used and how they were used.

Not done.

It would be good to explain more about the fieldwork in the introduction. The who, what, where, when, why and how of the fieldwork. In other words - when was it conducted? Over what time period? It would be useful to include the purpose of the fieldwork which was to field test three fish loss assessment methods. Likewise, the species and sectors of focus. Mention of the team at this stage would also be useful for the reader.

This has been partly addressed.

It would be useful to know where the data presented in the section Organisation of the Sector up to Discussion of the Results is from. Was this generated by PRA? Or is it derived from secondary sources? It certainly provides very useful background reading.

Still not clear where this data is from.

What would be useful would be to include a section describing how each method was used.

Not done.

You could then present the data generated by each method and go on to answer the following questions:

did you find the methods appropriate,

Not clear. Perhaps an ambiguous question to pose.

a) what were the problems you encountered.

Problems are stated.

b) were the team comfortable with each method?

Not clear. But reading between the lines, there seems to have been problems with the Questionnaire and the Load Tracking.

d) what are the recommendations you can make from your experiences?

Recommendations have been made regarding the methods.

9. Once the data is presented according to method, then it would be useful to compare data and form any general conclusions on loss levels.

Data not presented according to method.

10. Definitely we need to know more about how the Questionnaires and Load Tracking were used. For example which questionnaires were used, who used them, how the questionnaires were administered and how the raw data was analysed. Likewise it is not clear how Load Tracking was used.

Not addressed.

Data on Loss Levels

11. It is not clear in the report whether the data on loss levels is for a particular season, whether it is an annual average or for a different period of time. It would be useful to clarify this.

Not clarified.

12. There is a considerable difference in the data on loss levels generated by the PRA method and the Questionnaire method. Likewise between the PRA and Load Tracking

method at the mongering stage. Are you able to explain the reasons behind these differences?

No reasons given.

13. It is not clear what the loss levels actually are since there seems to be different data presented for the same stage. For example:

Fishing

Page 11 we are told that 4 baskets are lost due to crushing, quality problems and pilfering. This is equivalent to 2%.

Page 13 we are told that 8 % of fish is lost for the same reasons.

P14 for supply (fishing stage) we are told the physical loss is 1.5%.

Processing

P13 we are told that 6.66% of fish is physically lost

P14 we are given a range of 0.8 to 22% and a 11.4% average for physical loss.

14. These difference are confusing for the reader and it would be good if you could clarify things.

These differences remain in the report. There are different data presented for different stages. It is not clear how the data have been generated and how any calculations have been made.

Refer to visit of Ndenn and determine whether the tors for this have been addressed.

The following tors for co-ordinator were given by Joseph Ndenn in late February 1999:

After being re-briefed in the Load tracking and use of the Questionnaires, the Mbour team should conduct three Load Tracking exercises and one questionnaire survey which spans a four week period.

It is not clear whether these activities have been conducted. It looks as though they have not.

Once the fieldwork has been completed the existing interim report of the first stage of the fieeldwork should be revised to produce a final report which includes the following:

A detailed description of how each method, as it was used in the field and how the data was analysed

Not done.

Data from each method presented separately in its own section.

Not done.

Comments on the appropriateness of each method for loss assessment in Mbour including problems encountered the ease with which the methods could be used by the team and recommendations on whether the methods could be used for loss assessment in Senegal in future.

Partly done.

Informal

Some interesting qualitative conclusions regarding the use of the method are made. The report includes some interesting background information. This could have been generated from use of the method, but may be from another report/references.

The method is poorly described and there is no clear indication of what data was generated as part of this project. Presentation of the raw data – for each group interview – even in note form would give the reader a better understanding of what went on and confidence that the method was used and how it was used.

Much information is required on how the method was used, who interviewed, who took notes, the raw data and an analysis.

Questionnaires

The report highlights an interesting adaptation of the method in which the questionnaires are used in a less formal way and adapted to be used in a semi-structured interview context. Some interesting conclusions on the drawbacks of the method are given.

The use of the questionnaire method is poorly described leading to the assumption that it was not applied properly for whatever reasons. The method does not seem to have been well understood. The data as it is presented is meaningless.

From the information given this method has not been used properly. It would have been much more useful if this was honestly stated in the report along with the reasons and no attempt to provide any data is given. Time and effort involved in follow up not worthwhile.

Load Tracking

Load tracking used in a novel way. Cost and income data gives a revealing insight into the sector. This data could be the saving grace of this research.

The novel approach to load tracking relies on interviews with traders rather than on direct observation. There is a risk the data is not reliable.

More information on how the method was used is required in order to decide what the bias are. And how reliable the data is.

Nigeria

The Nigeria work was not available as one document. A review was made of four separate documents; report of the PRA method, report of the questionnaire survey, paper presented at the Abidjan evaluation workshop and the Magbon Alade load tracking report.

The PRA report provides data on the variables which influence loss, such as the loss variation according to fishing gear type, engine used or not, distance from fishing grounds and species.

The report:

- recognised the potential bias as a result of team composition.
- triangulated data especially using direct observation.
- showed good use of a variety of tools including case studies.
- demonstrate good use of the draft loss assessment manual from R5027.

The report needs reading through and spell checking. It would benefit from a summary which included a table of key data such as estimated loss levels, who incurred loss, reasons for the loss, whether the loss is seasonal. A section on lessons learnt, advantages and disadvantages of the informal method would also be useful.

With regard to the use of the Questionnaire, whilst the format of the questions is appropriate and a pilot study was undertaken, there are a number of gaps. Information is missing on key issues such as: sampling method, number of interviews, the analysis procedure and calculations. Unless information is made available on these issues then it is difficult to draw any useful conclusions regarding the survey or the results.

The Load tracking reports present results in a simple clear tabular format. The Magbon Alade report gives the reader a good understanding of the experiment. The use of calculations in both reports gives the reader confidence in the research process and that the author understands the subject.

However the use of economic loss in the Lake Chad work is confusing and generally the Load Tracking work emphasises the need for a clear standardisation of definitions, calculations and presentation of results.

There are a number of gaps in the Lake Chad data which require filling. Information is especially required on:

sampling method - how were the fish/cartons chosen? Size of fish?

quality of fish before transport

who was involved, who assessed quality, how physical loss was measured, packaging method, transport method and time, date of work.

Ghana

Report is clearly written and presented as well as easily understood.

The work highlighted clearly a number of lessons learnt, advantages and disadvantages of each method. These include:

Need to keep semi-structured interview short

Importance of a proper introduction to the community

Awareness of bias as in preferential treatment of the samples in Load Tracking

Informal plus Load Tracking is a preferred combination.

Awareness that this work was not enough to draw meaningful conclusions from, regarding data.

Informal method is useful to identify when it is appropriate to apply LT and Q.

Informal

The informal method was carefully planned with appropriate checklists produced to guide fieldwork. Most of the checklist topics were covered. The report includes the following important data: reasons for loss, seasonality of loss, ideas for loss reduction and perceptions of loss in the fishing and processing/marketing sectors. The use of semi-structured interviews, seasonal calendars and ranking were demonstrated.

However, it is not clear whether group or individual interviews were conducted, how many and who with. And therefore it is difficult to tell how representative the data is. Furthermore, there is no indication of how data was cross checked. Observation could have been used, but has not been mentioned as tool.

Data on loss is given but for fishing it is not clear whether it relates to a certain type of fishing gear or not. Seasonality although mentioned is not explained in detail. Nor is the relationship between species and loss. These two important issues could have been explored using a seasonal scoring matrix.

The potential to undertake calculations was there, but they weren't done. It was said that it was difficult to do this. More information on the difficulties would be useful.

Questionnaires

The results are clearly shown - only one basket from 244 was sold for a reduced price, no physical losses, 19 baskets for home consumption. 52% of respondents had not gone fishing, losses are low because the volume of fish landed makes it easier to apply better handling practices. **However, it is not clear what species of fish the data refers to are.**

However, there is no information on sampling method or size of population.

Although from PRA data can be extracted.

Likewise 50 fishermen and 50 processors were interviewed, however, it is not clear whether they were actual fishermen or canoe owners, unit owners or actual workers.

There is no information on the way in which the raw data has been analysed. What software – if any was used. This is important as it will enable conclusions to be drawn on the reliability and accuracy of the data.

The survey covered the last landing within the previous 14 days during a time of low catches. Although the questionnaire states the period was the last 7 days? There is some confusion here. What was the period used for fishing – last 14 days or last 7 days. There also seems to be confusion about physical and quality loss.

Details of table headers: axc, bxc, fxc, is required.

Post-smoking, only data for the 575 of good quality fish is given. It is not clear what happened to the three baskets of low quality fish.

Load Tracking

PRA was put to use to develop good demerit score sheet. And loss was measured at key stages in the chain. It was clear that what little loss in quality did occur was due to breakage.

However, the exercise was only conducted once and samples were given preferential treatment.

There is no data on the time/temp history of the fresh fish prior to assessment at the landing stage.

If information was recorded on all aspects of the chain it is not given in the report. It would useful to get more precise feedback on the issues which LT can be used for compared to the other two methods.

Not clear how and who planned the exercise.

The report is not clear on whether the same sample of fish were used throughout.

A figure of 6.2% is given as the loss at trading level, there is no indication of how this figure has been derived.

Appendix – Post harvest Review Checklist

Informal Method

Strengths

Weaknesses

Further Information Needed.

Was there an introduction to the community?

Were checklists developed?

Do the checklists cover the main issues?

Were there group interviews?

Were there individual interviews?

Is there data on reasons for loss?

Is there data on the seasonality of loss?

Is there data on who is affected by loss?

Is there data on solutions to loss?

Is there data on perceptions of loss?

Have loss calculations been made?

If calculations have been made have they been done correctly?

Are all the topics in the checklists adequately covered in the report ?

Was direct observation used for data collection and cross check interview data?

Were any other tools used apart from Semi-structured interviews?

How were these tools used – for appropriate information, correctly?

What bias could there be in the study?

Questionnaire

Strengths

Weaknesses

Further Information Required

Was the PRA used to design the Questionnaire survey? If so how?

How many questionnaires were used?

Do the questionnaires conform to those used during training?

Was there a pilot survey

Was the sampling method correct?

Who administered the survey?

How many interviews were conducted?

Description of the survey and results

Who analysed the data?

How was the data analysed and what was the procedure?

Load Tracking

Strengths

Weaknesses

Further information

Was the informal method used for planning?

How many times was Load Tracking conducted?

What sampling method was used?

Was it species specific?

Was there any repetition involved in the sampling procedure?

Is there data on reasons for loss?

Is there data on types of loss?

Is there data on levels of loss?

Was a demerit score sheet used and was this appropriate?

Is it clear when quality was assessed?

Were time temperature variables recorded

What stages of the chain were used?

Presentation of the Results

Other Issues

Data

Weaknesses