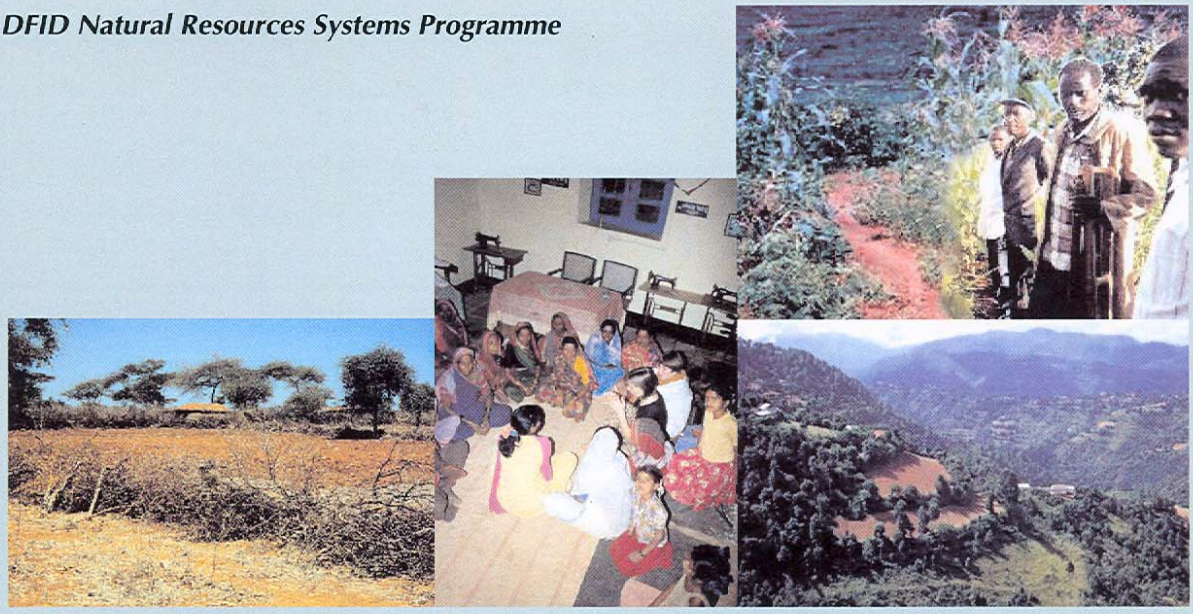
DFID Natural Resources Systems Programme



Workshop Proceedings

Improving the Poverty Focus of NRSP's Research on Natural Resources

December 2001

We wish to thank the following projects for supplying the photographs on the front cover:-

R6744, R7099, R7150, R7412, R7517, R7562, PD093

DFID Department for International Development

This document is an output from a programme funded by the UK Department for International Development (DFID) for the benefit of developing countries. The views expressed are not necessarily those of DFID.

Technical Editors:
Melvyn Kay, email: melvynkay@rtcs.org.uk
Richard Grahn, email: richard@grahn.net

Produced by:
Drakeloe Press, Milton Keynes

Natural Resources Systems Programme

Improving the poverty focus of NRSP's research on the management of natural resources

Proceedings of an NRSP Workshop

held at

Institute of Arable Crops Research – Rothamsted
Harpenden, UK

29-30 November, 2000

December 2001

PREFACE

The Department for International Development (DFID) is the UK government department responsible for promoting development and the reduction of poverty. The central focus of the government's policy, set out in its first White Paper on International Development (published in November 1997), is a commitment to the internationally agreed target to halve the proportion of people living in extreme poverty by 2015.

To contribute to achieving this objective, DFID funds ten programmes that cover various aspects of natural resources research. One of these programmes is the Natural Resources Systems Programme (NRSP).

All programmes have a ten-year term, which began in April 1995. DFID's prioritisation of poverty reduction came into place during 1998, thus requiring considerable refocusing of natural resources research in the fifth year (1999/2000) of this term. In the same year, DFID adopted the sustainable livelihoods approach to understanding poverty and pursuing livelihood objectives, which similarly had impact on development policy and research strategy.

In the case of NRSP, responsibility for strategic refocusing largely rested on a new programme manager, HTS Consultants Ltd (now HTS Development Ltd), who took over the management contract for NRSP in April 1999.

Various steps were taken, both in the definition of research objectives and in the research commissioning process, to re-orientate the programme to meet DFID's policy priorities. Whilst steady progress was made in this regard during 1999, the NRSP Programme Advisory Committee recommended in March 2000 that a more pro-active approach should be considered for dialogue with NRSP's constituents in order to further strengthen their awareness of, and response to this re-orientation and its implications for the design and conduct of NRSP's commissioned research.

This pro-activity materialised as a decision to hold a workshop in early November 2000 on 'Improving the poverty focus of NRSP's research on the management of natural resources', with leaders of current NRSP research projects as the main invitees. This document is a record of that workshop.

The workshop produced a considerable amount of written and transcribed material that has been assembled and synthesised to arrive at this publication. The conscientious work of the team of five rapporteurs – Heather Mackay, Crispin Marunda, Robyn Reeve-Johnson, Glenn Richards and ManFai Tang – is gratefully acknowledged. So also is the subsequent assistance of Richard Grahn and Melvyn Kay with technical editing.

FM Quin
NRSP – Programme Manager
December 2001

Contents

PART II – Presentations

1 Introduction

1.1 Background and structure of the document

This document presents a record of the two-day workshop on 'Improving the poverty focus of NRSP's research on the management of natural resources' that the Natural Resources Systems Programme (NRSP) held on 29-30 November 2000 at the Institute of Arable Crops Research – Rothamsted, Harpenden, UK. The main participants in the workshop were the leaders of the projects that were in NRSP's portfolio in year 2000, plus certain resource persons and members of the NRSP management team (NRSP-PM[1]). In addition to UK-based project leaders, those who were located in overseas organisations were also invited. In total, there were 51 participants including four participants from overseas. Regrettably at the last moment, three participants from India were unable to travel.

The report of the workshop is in two parts.

Part I covers the objectives of the workshop; the strategy that the NRSP-PM followed in deciding on its design and the way in which the 2 days were structured (Sections 1 and 2). Syntheses of the discussion sessions that followed the project presentations are in Section 3 and the sessions relating to the discussion topics of the working groups are in Section 4. Part 1 concludes by summarising the points for action that arose from the various discussions over the 2 days (Section 5).

Part II is a record of the presentations on individual projects, grouped by the theme areas of the plenary sessions of the workshop (Sections 6 to 10). For each project that was included in the programme, the abstract of the presentation is provided and the slides or text that the presenter had compiled. The final section (Section 11) contains the evening presentations of the invited speakers.

Details of the 2-day programme and the workshop participants are in Annexes A and B respectively.

1.2 Purpose of the Workshop

The main purpose of the workshop was to identify ways to improve the poverty focus of NRSP's research on the management of natural resources (NR). This objective arises directly from the priority that the Department for International Development (DFID) gives to poverty reduction, including a commitment to the internationally agreed target to halve the proportion of people living in extreme poverty by 2015.

The commitment to poverty reduction prompted a revision, in 1998, to DFID's strategy for research on natural resources (NR) which in turn led to revisions in the objectives of the research programmes that form part of this strategy. Thus, contrary to an earlier emphasis on NR-related production increases, the purpose of the research that NRSP now undertakes is 'To deliver new knowledge that enables poor people who are largely dependent on the natural resource base to improve their livelihoods'.

In large measure, it is the projects that NRSP funds that can enable the programme to achieve its purpose. It is therefore essential that projects should use effective ways to undertake research and deliver new knowledge relevant to poor people. With this concern in view, the NRSP-PM identified the need to hold a workshop for project leaders to enable discussion of the key issues that must be addressed to achieve a poverty focus and the implications of these for the design and implementation of NR management research.

[1] / The phrase 'programme management team', abbreviated to NRSP-PM, refers to the NRSP Programme Manager and the combined membership of NRSP's Programme Advisory Committee (PAC) and Steering Group (SG).

1.3 Strategy for the Workshop

The strategy for the workshop was to use and build on the research experiences of projects as the key means of addressing the workshop's purpose. By this means, the NRSP-PM intended that workshop participants would identify with the process of raising awareness of DFID's priorities and thinking out the implications of this for NR-related research, including the recognition of the need for new approaches and/or changes in emphasis and ways of working.

Prior to the workshop, over a period of some weeks, NRSP-PM argued out the preferred way to draw out relevant project experiences. Four themes of importance to the workshop's purpose were identified and projects were then selected from the portfolio that could contribute to these themes. Building on this, the programme for the workshop was developed. The theme areas were not intended to be an exclusive listing of the topics that the workshop should address. Rather, they were viewed as starting points for sharing research experiences that could lead into the identification and discussion of relevant issues concerning the poverty focus.

In parallel with the process of developing the workshop's programme, the PAC Chairman took the lead in the development of a discussion paper on the same topic as that of the workshop. The aim of this paper was to synthesise and debate the issues and requirements for achieving a poverty focus in NR management research. After several iterations, a draft version of the paper was included with the background papers of the workshop. It was not intended that the paper should be a working paper for the workshop. However, it did aim to inform project leaders of the thinking of the NRSP-PM and contribute to the debates envisaged for the workshop.

Overall, there was one guiding principle for translating the strategy for the workshop into a useful and worthwhile input of 2 days time by each participant. Namely, that in order to incorporate DFID's policy into research practice, there is a need for NR researchers to think about what this entails, share research experiences, wrestle with problem areas, and carry new ideas and perceptions forward into future research design, planning and implementation.

1.4 Some history of NRSP

In common with the other research programmes that comprise DFID's Renewable Natural Resources Research Strategy (RNRRS), NRSP officially commenced in April 1995 and has a ten-year life to March 2005. Its research portfolio covers the six production systems that DFID has defined for the RNRRS – the high potential, hillsides and semi-arid production systems and the forest agriculture, land water and peri-urban interfaces.

During the first four years (1995/96-1998/99), the portfolios for each production system were relatively distinct. Day-to-day management responsibility for each portfolio was shared between four production system (PS) leaders, two of whom each managed two PSs while two each managed a single PS. In this period, projects for all PSs concentrated on two main research thrusts – technical research to deliver technologies for specific production systems and characterisation of PSs thorough assembling a large amount of descriptive qualitative and quantitative information for a specified PS. This latter research thrust particularly dominated the peri-urban interface portfolio. An additional research thrust, that was relevant to all the PSs, concerned the development and promotion of socio-economic research methodologies, relevant to natural resources research. Projects for this thrust were mainly managed as a distinct (seventh) portfolio on socio-economic methodologies (SEM) although there were a few projects for the same research thrust in the PS portfolios e.g., in the land water interface portfolio. Presentations on some of these projects are included in the workshop programme.

Until April 1999, coordination of the six PSs and SEM was the responsibility of the NRSP Programme Manager, located in a central office in DFID headquarters – the Systems Management Office (SYMO). In April 1999, management of all six PS portfolios was contracted to a single organisation, a private

natural resources consultancy company, HTS Consultants (now HTS development Ltd) while management of SEM remained with DFID.

The consolidation of the programme under a single management system at one location (but with the support of an interdisciplinary management team, [refer footnote on page 1-1]) has enabled the programme to develop greater coherence. It has assisted the programme to look across production systems, and identify more clearly the common research elements and further cross cutting research needs including new research topics and common required features of research design.

The workshop that is reported here, in respect of topic, scope and structure, is a product of this greater coherence and the attendant gains for defining and acting on identified priorities. It marked the first time that the programme's key constituents had come together to share their research findings and experiences, and discuss a topic that is central to DIFD's priorities and, therefore, common both to NRSP's objectives and mode of conducting research.

2 Workshop structure

The main structure of the 2-day programme is outlined here. The detailed programme is in Annex A.

As stated on Section 1, it was planned that the NRSP's own research thus far, would inform the discussion of how to improve the poverty focus of research on natural resource management. To this end, presentations by project leaders of recently completed or on-going NRPS projects were structured around four theme areas that were highly relevant to the workshop's objectives namely:

- Project experience of characterising poverty and livelihood strategies (Day 1, Session 2, four presentations)
- Participatory methods and inclusive planning as a means to strengthen the involvement of the poor in research design and the research process (Day 1, Session 3, four presentations)
- Strengthening the links between social, economic and technical research to improve the impact of research that concerns the poor and their use and management of natural resources (Day 2, Session 5, five presentations)
- Knowledge flows: Study of the reach, use and impact of NRSP's communication methods and media products (Day 2, Session 7, one main presentation and two brief comments on related topics of interest to NRSP)

Eight of the presentations centred on projects that had been added to NRSP's portfolio after April 1999. The remaining presentations (six in all) were for projects commissioned during the earlier years of the programme of which two were from the SEM portfolio while the remainder were projects of various production systems. The main points of the discussion arising from presentations on each theme are reported in Section 3.

Based on the questions and discussion points arising from these presentations, the topics for two working group sessions were identified, all of which were positioned in the context of NR management research and poverty reduction. The first working group session followed plenary sessions 2 and 3 and addressed three topics (two groups per topic):

- Data – a debate of the need for new data versus undertaking more analysis of existing datasets; deriving findings from narrow examples (reliability and use, sampling and time series); the limits to the use of PRA data; the implications of a poverty focus for the kind of data that are required
- Research versus development – key features of participatory action research, what are the generic research assignments in this mode of working?
- Methodologies – what social analyses are being undertaken in present research; are additional social analyses needed; how to move from a static poverty analysis to capturing the dynamic aspects; should the poor be the main targets of research; how to better integrate a poverty focus in a systems framework?

The second working group session followed plenary session 5 and took two questions:

- How to sharpen the poverty focus at the project level?
- How does adopting a poverty focus change how we address interdisciplinarity and research impact

After each of the working group sessions, each working group presented a report and a synthesis of main points for each topic/question was then developed and presented.

Rapporteurs recorded the working group reports and synthesis presentations, and the discussions that then followed. A reduced version of these detailed records, whilst maintaining the essential features of the reports and discussions, are presented in Section 4.

3 Synthesis of discussions after each session of presentations

The aim of this section is to capture the key points made in the discussions on the presentations of Sessions 2, 3, 5 and 7, as well as those following the wrap up comments in the session at the end of the first morning.

3.1 Day 1, Session 2

Project experience of characterising poverty and livelihood strategies (Chairperson – K. Young)

- There is a need for researchers to grasp **the effects of changing macro-economic, social and political conditions** upon value and replicability of research. Likewise, there is a need for researchers to seek to capture the longitudinal dynamics as people more in and out of poverty over time.
- It was proposed that projects on **poverty alleviation** should focus on the livelihoods of those who are predominantly dependent on the natural resources. Projects also need to be sensitive to **political and policy processes** in the specific countries as they directly influence how communities manage and gain access to natural resources.
- Having close working relationships with **target institutions (TIs)** from the project outset is of considerable value. Uptake, for example, is enhanced since it is not a case of selling a ready-made product or findings, but of involving them in the research so that it takes their needs on board.
- Institutional development, changes in policy and other higher-level organisational changes are **all long term processes** which can involve high costs and long timescales. Nevertheless, the functioning (or otherwise) of organisations and the lack of interaction between institutions both have a critical influence upon the success and uptake of research. Researchers need to consider the extent to which they are able to address this.

3.2 Day 1, Session 3

Participatory methods and inclusive planning as a means to strengthen the involvement of the poor in research design and the research process (Chairperson – C. Okali)

- Participatory Action Research (PAR) was suggested as a research methodology that can be applied to involve the target groups, i.e., the specific groups of the poor, in the research process. Because of the complexity of poverty, research methods should ensure multiple stakeholder participation at both the spatial and temporal scale to capture variation due to geography and time.
- Since natural resources are **complex resources with many users and stakeholder groups**, NRSP projects should seek innovative ways to include the interests of all the stakeholders. Trade off analysis was suggested as a methodology using stakeholder analysis and participatory techniques such as focus groups, multi-criteria analysis and consensus-building that can be applied to evaluate the impact of different natural resource management strategies.
- Natural resource management comes under the jurisdiction of public institutions in most developing countries. Projects should be sensitive to the power dynamics between users and public institutions. The forest user groups (FUGs) in Nepal, for example, have managed forest under the commons, resulting in the forests' recovering. The government still wants to control the forests and this is becoming a source of conflict between the FUGs and the forest authority.

- There is often a great demand for information and ideas on the part of poor people. It is important that projects present new information and technologies in languages and formats that the target groups can understand.
- Security of tenure can be an important element to encourage communities to participate in NR projects. In Nepal, for example, the FUGs were formed on the basis of communal use of forests and the communities have 'usufructuary' rights (rights to use only). This security has encouraged communities to manage forests around their neighbourhoods more sustainably.

3.3 Day 1, end of morning wrap up of Sessions 2 and 3

(Chairperson – F.M. Quin)

- Currently **NRSP research produces large datasets**. NRSP should consider how to make the best use of datasets produced for projects, balancing the need for robustly sized datasets with the requirement that this entails of researchers.
- Despite NRSP placing emphasis on early engagement with overseas collaborators and target institutions there can be other constraints to working with them. For example, **there is a broad variation in target institutions' understanding of the sustainable livelihoods approach.** NRSP could consider factoring a methodology into the research design to enhance this aspect of working with target institutions.
- Currently NRSP research looks at **poverty as static rather than dynamic**. What methods can be used in order to develop a dynamic picture of poverty? Is it possible for NRSP to selectively focus on specific groups of the poor or is it random? In terms of social setting and ecology what groups of the poor does NRSP focus on? Is NRSP helping the poor move out of poverty or cope with it? What is the role of non-NR in the livelihoods of the poor?

3.4 Day 2, Session5

Strengthening the links between social, economic and technical research to improve the impact of research that concerns the poor and their use and management of natural resources (Chairperson – L. Shaxson)

- It was suggested that researchers need to be aware of **possible misinterpretations due to language differences** and the consequent importance of a simple or common language unit. This can have a significant bearing on quantitative aspects of research.
- **Local knowledge and scientific biological knowledge can compliment one another.** It was suggested that while knowledge and understanding by farmers is sophisticated and widespread, often it is not transferred to researchers.
- Poverty is not the core concern of any single discipline. **However, researchers should be aware of the poverty analyses, strategies and theoretical and practical frameworks** that exist in agencies and institutions, on which they can draw.
- It was also suggested that the **frameworks discussed in the section were designed to stimulate researchers and to be used as tools and routes into new thinking**. They led to positive outcomes less by 'asking the right questions', and more by leading researchers to question their assumptions.

3.5 Day 2, Session 7

Knowledge flows: Study of the reach, use and impact of NRSP's communication methods and media products (Chairperson – R.Stern)

- In terms of assessing the impact of NRSP's communication methods and materials it can be difficult to distinguish between the impact of the product and the impact of project activities.
- The success of many of NRSP's dissemination materials relies upon them being translated into a language understood by the local farmers. This crucial work requires a budget, which is often not included in the original project budget. Would it be possible to carry out the work in the farmers' own language rather than in English? One step towards this is to ensure that farmers are involved in producing project outputs so that they can more easily relate to them. This is often not the case and local farmers are sidelined.
- **Communication materials (e.g., manuals) should be pre-tested** to avoid the risk of producing materials which farmers cannot relate to. Manuals may appear self-explanatory to the researchers, but may not be as comprehensible to those not directly involved.
- A **project should have a strategy for how and when distribution of project materials occurs**, and for tracking the use of the dissemination and communication materials. Communication materials should be tracked in order to identify any support actions or modifications that may be required to enhance their success or adapt them to local activities.
- **A more active approach to dissemination in projects is required.** Types of communication materials and methods should be considered during RD1 preparation with local stakeholder input. This would clarify the form, language, skills and budget required for the dissemination materials.
- **Who will be responsible for research dissemination should be decided early on in the project design.** It is then vital to gather a clear understanding of the capacity, reach and impact (resources, skills, abilities, practicalities) of the responsible organisation(s) for the desired dissemination.
- A better understanding is needed of the level of communication/dissemination required in order to achieve different levels of uptake.

4 Synthesis of cross-cutting elements
What were the main findings for sharpening the poverty focus?

The working groups came up with a number of insights into how greater impacts could be made on poverty both at the level of the Programme and at the level of individual projects. This section draws out the main cross-cutting findings around six headings from the working groups sessions and plenary discussions.

4.1 Poverty analysis

Analysing poverty as a means of understanding its links with management of natural resources

Two key themes emerged around the subject of poverty analysis – **identifying who the poor are** and **understanding how poverty is changing** in any given situation.

Identifying poor groups

- **Who are the poor?** While there is an extensive literature on conceptualising poverty (income poverty, social exclusion, vulnerability, basic needs, relative deprivation) current practice largely focuses on participatory poverty assessments. There is often considerable heterogeneity among groups involved in community-based natural resource management. 'The poor' are not always readily identifiable or may not be accessible due to the need to work with local elites. There may be a tension between these two insights.
- Likewise, **stakeholder interests** can change. One example cited during the workshop was the case of Forest User Groups in Nepal. When forests were handed over to groups in Nepal, the forest had little value. When forests had regrown in many areas they came to be seen as increasingly valuable. This is raising tensions between some Department of Forestry officials and some community forestry groups as both are noting the value of the forests.
- **Decision making units**. It is important to be mindful that there is probably no such person as 'the' household decision-maker; there is a decision-making process involving negotiation and discussion among household members (not necessarily equitably). Unfortunately this process is usually hidden from external researchers.
- **Social analyses** form part of present research. For example, descriptions of local organisational structures (community groups, networks, associations), analyses of local institutional arrangements and analyses of relationships between communities and local government structures all take place. It may be necessary to place **more emphasis on intra- and inter-group relationships, and among different wealth/status groups within a community** (i.e., how do the very poor relate to everyone else?).
- It was also suggested during one of the working groups that for projects **where a detailed social analysis is required there may be a need for an initial scoping stage** to frame more clearly the research questions and how best they might be answered (and by whom). In addition, improved consultation between UK researchers and overseas collaborators during the inception phase can enable better use of the overseas partners who often have valuable skills, knowledge and experience and a better understanding of local social conditions.
- On the issue of the **working directly with the poor**, it was argued that while the poor should be the main beneficiaries of research and development, this does not exclude working on issues that ultimately affect the poor such as policy, institutional arrangements.

Dynamics of change

- **Livelihood diversification** emerges as a common theme from much poverty-focused research. On many occasions, it is the rich who can diversify more readily. The poor do diversify but often remain highly dependent on the natural resource base and unable to enter activities such as

trading. They also engage in a variety of coping strategies to enable them to cope with difficulties in their livelihood strategies.

- **Change over time**. In order to capture the dynamic nature of poverty, researchers also need to be aware that cross-sectional data sets may provide a limited static picture. There is a strong case for following people over time to understand the dynamic picture – longitudinal studies might be more informative in this respect.
- A **dynamic analysis** would imply the need for a longer time frame (not necessarily more funds but a longer timescale) in order to understand poverty, but also to monitor the impact of research (time series data). Researchers need to research and measure the process of poverty alleviation and why people move between wealth categories in order to enhance movement out of poverty. DFID's Economic and Social Research Unit (ESCOR) has Development Research Centres that collect continuous data on impact of, rather than causes of, poverty. Understanding poverty may be constrained by both the sustainable livelihoods (SL) and systems approaches. A method of establishing a dynamic picture of poverty is to conduct in-depth discussions at the household level regarding livelihood change.
- **Understanding difference**. It may also be revealing to disaggregate data spatially to reveal differences in livelihood strategies, especially of the poorest groups, in relation to location, principally distance from main roads, town or other sites where markets might be better developed.

4.2 Research methods and the research process

Three broad themes emerged under this heading during the workshop. Firstly, the debate continues over the **positioning of NRSP's projects on the continuum between research and development**. Secondly, participants sought to address the need to ensure that **research is sufficiently institutionalised within partner organisations and other stakeholders**. Thirdly, an interesting debate occurred on the **role of consensus-building in the research process**.

Research versus development

- NRSP aims to conduct research that closely relates to opportunities for, and constraints to development (from an NR perspective), but does not promote or undertake development as such. However, through involving people in the research process, NRSP's research can have localised developmental impact with the specific communities with whom the research is conducted.
- Achieving the long term sustained use of research findings (impact) is the role of local development agents, not a project's research team, hence the importance of involving these agents in the research, or ensuring that they are fully briefed on and engage with its findings.
- Ensuring continuity and/or monitoring the impact of research, after a piece of research is completed, is the task of the NRSP programme management. Mechanisms may need to be developed to enable projects to be monitored beyond their contract term to ensure their developmental impact. Links with DFID country programmes can also help to promote sustained use of research findings over the longer term.
- Some participants were of the view that **Participatory Action Research (PAR)** can:
  - create a sense of ownership of the research and build confidence in communities' abilities to solve their own problems
  - raise community expectations
  - empower people
  - inform local people and researchers
- Yet it was also pointed out that PAR can run the risk of losing sight of the original aims of the research due to the number of issues that are raised using this technique.

Institutions and poverty-focused research

- **Research may not be linked to local institutions** concerned with development work, and therefore not be taken up. Stakeholder and institutional engagement is critical for research results to be taken up and used. There is a need therefore to consider the long-term impact of research and how to link it into the local system. We need to institutionalise these procedures to create a self-propelling process.
- It may also be necessary to seek **to increase the level of responsiveness** of some institutions to issues and improve the uptake of research outputs. Through the interaction of UK institutions, NGOs and University/Government research a dynamic process may take place, leading to a changing of mindsets about research in respect of its aims, how it should be conducted and how findings should be promoted with stakeholders and actors beyond the research community.
- To increase access and benefits to the communities, there could be a need for institutional reforms that ensure that the policy environment facilitates positive changes regarding the use of resources. **Consensus building and policy links between users and institutions on how to manage communal resources** are of relevance to all the NRSP projects.

Stakeholder analysis and trade-off analysis, consensus building

- A number of presenters identified **consensus from a process of stakeholder consultation as a valuable output**. The question was raised during the workshop as to whether this reflects the dynamics of the group involved and whether the existing power relationships will undo agreements reached in the group.
- The **exposure of diverse views in a public forum** (such as the views of poorer groups obtained separately) may also risk making conflicts more visible and therefore resulting in poorer community relationships. Discussion fora help to open up feelings and express differing interests, the impact of the discussion on community relationships, and official accountability is an area of interest.
- A **trade-off analysis** was put forward as one methodology that can be applied to evaluate the impact of different natural resource management strategies where stakeholders and their expectations are diverse. The key lessons learnt from using this method include inclusiveness, flow of information and feedback between stakeholders, validation of diverse knowledge and building of confidence and trust among all the stakeholders.
- However, it was also noted that **reaching community-wide consensus** is only one means of decision making. There is a need for researchers to understand processes within institutions, the power dynamics, and to analyse the procedures and outcomes of the decision making process.

4.3 Interdisciplinarity

Discussion centred on how adopting a poverty focus affects research planning.

Ways of working

- The benefits of **Government Organisations (GOs) working with Non-Governmental Organisations (NGOs)** were assessed. NGOs, it was argued, have a long-term commitment to poverty reduction and can provide GOs and research organisations with increased uptake pathways and banks of local knowledge. By working with GOs, NGOs can gain increased rigour in their research.
- The roles of **northern and southern institutions** are also subject to change. NRSP places emphasis on the need for greater involvement of 'southern institutions' in project management and UK institutions are increasingly responsive to this. NRSP should have a clear strategy for facilitating greater involvement of overseas institutions in project management.
- **Issues of project duration**. Do projects require more time for adequate problem analysis and interdisciplinary team building? Project leaders also need access to expertise on uptake issues at

the project design stage, because the nature and quality of research activities are important factors in uptake. One way of doing this is for researchers to learn from each others' work and share experiences in project design. Guidance could also be provided by the programme management at the proposal preparation stage on communication between researchers to improve research implementation and design and to share expertise. Such researcher to researcher exchange may require a small amount of money prior to the commissioning of an actual project.

- Another working group wondered whether **training was needed in certain skills**: team building, interdisciplinarity and project management, or whether it ought to be expected that project teams of research organisations should have these skills already. A resource base of methodologies for project managers to consult would be a useful tool kit (analytical, dissemination and others).
- **Impact monitoring**. The poverty focus implies that impact on poverty was likely to be observable /measurable within the lifetime of project but is this realistic? Is one to three years of a project really enough to determine the impact upon poverty, if there even is any? One suggestion was that during project design the team has an idea of the intended outcome/impact and therefore should be involved in impact assessment. The involvement of project teams in impact assessment has implications for time/project duration. DFID-RLD has guidelines for impact assessment, including who is responsible.

4.4 Data

Datasets

- Currently NRSP research is labour-intensive with many projects collecting very large datasets. Is there any way to reduce the data required to make the research findings more sustainable? At the same time, NRSP should not push too hard to reduce datasets as this may result in samples that are not robust. Small datasets are often valued less by target institutions.
- Researchers tend to focus on collecting primary data, and as a consequence sometimes neglect to fully explore possible sources of secondary data. Secondary data sets can give insights into how other organisations perceive and measure poverty.
- Data should be communicated in a form that is appropriate and accessible to stakeholders and immediate users. One suggestion is that projects' final technical reports should include a summary of the data sets used. This information could then be searchable via the NRSP web site.

Sampling

- There can be benefits to more structured and less structured sampling methods. Researchers should be aware of the advantages and disadvantages of each in specific cases. Deriving findings from narrow examples (reliability and use, sampling and time series) can also be problematic unless the sample is truly representative and can be defended as such.

Limits to the use of PRA data

- There is a need for a **more integrated understanding of biophysical, socio-economic and political data** in order to achieve a holistic understanding of the processes which influence development, and identify suitable interventions.
- **Increased data and information sharing** is required to improve researchers' awareness of other research funded through NRSP and to avoid duplication data collection. This also makes information available to institutions and researchers not previously involved in NRSP and hence creates a more level playing field. Many NRSP projects have large datasets therefore a metadatabase could be the most appropriate mechanism for allowing researchers access to existing NRSP information. Access to data could then be negotiated on a case by case individual basis. However, this does raise ethical issues of intellectual property rights.

4.5 Target institutions

Research needs of target institutions (TIs)

- Policy makers do not want generalisations at the universal level, the emphasis is more on identifying and accounting for differences, be it in terms of location or social factors. In this sense there is a need to support research which seeks to incorporate complexity and diversity into policy debates and processes.

Working relationships with TIs

- Bringing TIs on board at an early stage means that we as researchers are not trying to sell something to a TI after the research has taken place. Many TIs understand the need for the research and the poverty focus. But others have questioned the value that British researchers can add. There can also be a broad variation in TIs understanding of the sustainable livelihoods approach.
- Natural resource management is under the jurisdiction of public institutions in most developing countries. Research can show the consequences of institutional arrangements on the poor.

4.6 Programme and individual projects' responsibilities

The following programme responsibilities were suggested:

- As well as communication strategies for individual projects, **NRSP should have an overarching communication strategy**.
- NRSP needs to operationalise its responsibility for continuity or monitoring the impacts of research after the projects have been completed. This is likely to require the development of mechanisms to enable projects to be monitored beyond the lifetime of the research itself.
- **NRSP projects should be linked to DFID country strategies**, where poverty analyses, strategies and data sets exist.

The following were recurring suggestions for how the poverty focus might be sharpened at the project level:

- **For project interventions to be effective it is important to identify the important linkages (and feedbacks)** to ensure that the beneficial impacts on poverty will happen and that the risk of adverse effects is reduced.
- There is a need to **identify clearly the interests and roles of stakeholders** as components of the system that is researched in order to better engage them as part of the solution.
- **Poverty-focused research requires different ways of working**. These will aim to draw out, understand and work with the perspectives of marginalised groups and how groups of poor people are situated with regard to others within a community. Interdisciplinarity is likely to involve having sufficient breadth of skills (i.e., going beyond disciplines) in a research team and is not adequately captured by any form of standard checklist or simple framework.
- Adopting a poverty focus will have an influence on and impact upon the overseas collaborators. Both will affect the **choice of partners and the nature of alliances** formed as well as leading to brokerage and networking. The Programme needs to have sufficient flexibility to accommodate such changes.
- **Interventions change the structure of the system** and alter relationships and dynamics. Monitoring of uptake and the consequences of uptake will not only help to demonstrate impact but will also enlarge our understanding of how systems change.

5 Next steps

Since the workshop, NRSP-PM has followed up four topics/fields of concern that were strongly brought forward during the course of the workshop. These are listed below and a brief progress report on developments since the workshop is provided on each.

Data and information sharing

The central focus has been on ways to increase data and information sharing of the research that NRSP has funded through the following actions:

- The NRSP-PM has continued to develop the NRSP library. The library is housed at the NRSP office and is regularly updated with projects' publications and internal project reports and other media products such a videos, posters, pamphlets, databases etc. Each quarter, project leaders are contacted to submit any communication materials that the project has reported are available which are not as yet held in the library.
- Since the workshop took place, the search facility of the library catalogue that is posted on the NRSP web site has been improved. Key word searches are available for all final technical reports (FTRs) as from the start of the programme in April 1995.
- Executive summaries of the FTRs of all past projects are available on the web site.
- The proforma for an FTR now includes specification of the databases that a project holds, and project leaders are requested to submit e-files of major databases to NRSP when a project ends.
- NRSP is developing a metadatabase that will contain details of the databases that NRSP-funded projects have developed and whom should be contacted to obtain copies of these. Where feasible, deep links will be provided to these databases. The metadatabase will be posted on the NRSP web site latest by September 2002.

Livelihoods research – Livelihood strategies and natural resources-related management opportunities

Many of the points made at the workshop regarding livelihoods research (refer Sections 3.1, 3.2 and 4.1) both reinforced and enriched a plan that was already in the NRSP programme-level logframe – namely to obtain better value from NRSP's past and on-going research on livelihoods, particularly with respect to certain key questions:

- What can be learnt about how the sustainable livelihoods framework (SLF) has enhanced or constrained understanding of livelihood strategies of specific groups of the poor. Specifically:
  - How has the SLF been used, and with what results?
  - How has the SLF 'not been used, what was missed and why?
- How can livelihoods of poor people be improved through better management of natural resources?
- What can be learnt from NRSP projects that study livelihoods about transforming capital from one form to another (i.e., transformations between livelihood assets) and flows of resources (i.e., temporal and spatial dynamics)? Are institutional processes, livelihood dynamics and tradeoffs and linkages between assets covered?
- Did the research produce answers to the questions of bullets 2 and 3 without using a sustainable livelihoods approach and the conceptual components of the SLF. If 'yes', what can we learn from this?

This synthesis assignment began in June 2001, when several livelihoods-related NRSP projects were completed. The report of the study will be available in March 2001 and it is planned that a peer-reviewed publication will follow.

NRSP's communication strategy

Subsequent to the workshop, the final technical report of the assignment that examined 'the reach, use and impact of NRSP's communication methods and media products' (refer Section 3.5) was completed. NRSP has subsequently acted on the recommendations in the FTR in two main ways:

- ***Project-level*** – NRSP has accepted that a communication strategy must be integral to a project's design. The standard formats for concept note preparation and for development of a full research proposal have been adjusted to ensure that this requirement is met. The terms of reference for project mid-term reviews also require that the performance of the communication strategy and a project's future communication plans are reviewed.
- ***Programme-level*** – The completion of the 'reach, use and impact' study coincided with the completion of a review of 'scaling-up strategies for research in natural resources management' that was undertaken as an NRSP research project in the hillsides portfolio. Both pieces of work have informed the further development of NRSP's strategy for communication, positioned in the wider context of upscaling, and have significantly contributed to NRSP's development of a communication and upscaling strategy for the final three years of the programme's term, April 2002 to March 2005. Latest by June 2002, NRSP plans to publish the main findings and recommendations of the communication and upscaling research in the form of a digest for NRSP's constituents. The digest's working title is 'Enhancing the impact of natural resources systems research' and in scope it aims to highlight certain key considerations in research design that can enhance the wider uptake of research findings.

Impact monitoring

The programme has responded to the workshop's recommendation with respect to monitoring the impact of research. As from April 2002, it is intended that a plan for analysing the uptake of research will be implemented for a selection of NRSP's projects. Uptake will be examined in terms of both its direct effect on livelihoods and its indirect effect on policies, institutions and processes. NRSP-PM plans to identify and transact indicators which have a relatively good chance of sustained use beyond a project's lifetime such that the impact of NRSP's research could be assessed at a future date after the ending of a project and the programme as a whole. NRSP plans to deliver a report to DFID on this impact assessment research prior to the end of the programme's term in March 2005.

6 Workshop session 1: Introduction

6.1 Welcome and introductory comments on NRSP

Michael Mortimore, Chairman NRSP Programme Advisory Committee

- All participants: who are managers of current and some past NRSP projects, and some additional resource persons
- Especially overseas participants, Caribbean (CANARI), Congo, Uganda, Tanzania, and Zimbabwe
- Regret that ICAR representatives unable to attend owing to last minute restriction on travel, especially Dr B R Sharma, DD ICAR, New Delhi; Dr S R Singh, D Directorate of Water Management, Bihar; Dr H P Singh, D CRIDA, Hyderabad
- DFID representative Alex Turrall

We will not introduce ourselves formally, but please wear your badges!

Background: What is NRSP's structure and purpose?

As you probably already know, NRSP is one of 11 natural resource research programmes of DFID. It is structured in three tiers:

- contracted projects undertaken by both UK – and overseas-based scientists;
- Steering Group, with a mixture of disciplines, which is responsible for the technical inputs to management and includes a specialist on each of the six systems which we research (Forest Agriculture Interface, High Potential, Hillsides, Land Water Interface, Peri-Urban, and Semi-Arid Production Systems). The SG is led by the Programme Manager, Dr FM Quin;
- Programme Advisory Committee (PAC), which is a small group charged with strategic oversight.

The Purpose of the NRSP, as stated in the new logframe, is 'to deliver new knowledge that enables poor people that are largely dependent on the NR base to improve their livelihoods'. This is amplified in the *Annual Report, 1999-2000* into the following objective: 'As one means of assisting the improvement of the livelihoods of the poor, research undertaken in the NRSP focuses on interventions that encompass social, economic, institutional and biophysical factors that can enable changes in the management of the NR base that will benefit the poor and at the same time at least maintain the productive potential of the NR base'. This objective is pursued by means of research in a *systems* framework (see the short paper published in March,1999 under the title, 'The systems approach in the Natural Resources Systems programme').

For the first four years of the programme, there was substantial work on biophysical problems, which aimed at productivity gains. Systems research not only provided a better understanding of the systems in which work undertaken by other NR programmes (e.g. Crop Protection, Livestock) is embedded, but also developed its own components (e.g. soil fertility management).

Livelihoods of poor people are linked with the NR base through systems of social, economic, institutional and technical interaction at the local level. Local level systems are aggregated into regional and agro-ecological or thematic systems. These aggregated systems are reflected in the NRSP's six production systems, some of them defined in agro-ecological terms and some in thematic. Livelihood gains can be made through improved management of these systems, where such improvements are possible. The knowledge required for putting improvements in place is complex and requires interdisciplinary collaboration. At the moment there is a shift in emphasis taking place from technical to social or institutional constraints in these systems. This shift is reflected in DFID's Sustainable Livelihoods (SL) approach, and in adjustments being undertaken in parallel by other donor organisations. It is the purpose of this Workshop to review the work in progress, and in some cases completed, by NRSP projects in order to define a way forward.

Michael Mortimore

Issues

I would like to introduce very briefly four issues, which will, we hope, be among those taken forward at this Workshop.

Objectives

Within the framework of the attainment objectives set for us by DFID, and the general statement of purpose given just now, we have a strategic challenge in allocating our resources on three axes:

- Between research on strategic, 'upstream', policy or *enabling* measures on the one hand and 'targeted' or *focussed* measures on the other;
- Among the six production systems of the NRSP; and
- Among major crosscutting themes such as common pool resources (CPR) management.

Integrating social into technical research

The statement on systems research which was published in 1999 did not attempt to go far with understanding poverty from a NR management perspective or developing its methodological implications. Experience with current projects has shown Programme Management that we have arrived at a point of readiness to take this further. It is necessary to go 'upstream' from importing social or economic methodologies into technically driven research, to integrating social, institutional and economic perspectives into research design. Robust interaction is necessary both in UK groups and in partner institutions overseas.

Empowerment

We have moved a long way from using biophysical research as a basis for technology transfer to the more diffuse objective of providing poor people with more technical or economic options, new or improved structures or institutions and better knowledge with which to improve their own livelihoods. At the same time the 'withdrawal of the State' and constraints on donor resources are underlining the necessity of empowering communities, other stakeholders or individuals, and of drawing in key actors.

Scale

Given, on the one hand, a need to generate broadly applicable findings from research, and on the other, a need for micro-scale analyses of systems in many (though not all) NRSP projects, an important question arises as to how best to manage the outputs of NRSP projects in such a way as to benefit as many people as possible. NR research must now address some assignments that were not regarded traditionally as 'research'.

Method of the Workshop

It is important to stress the approach we have decided to follow in planning this Workshop. We have chosen to mine our own project resources - to learn from those working at the coal face - rather than to follow a course of abstraction by fine-tuning hypothetical structures. This does not forbid you from referring to theory or models! However we believe that not only will the sharing of experience with *case studies* argue more effectively - in a meeting of practitioners - than abstraction, but also that it will promote a self-critical frame of mind in which we can be honest about the lessons which experience has to teach us. Programme Management, I can assure you, is not looking for promotional presentations, nor destructive criticism, and we hope that you will keep this in view during our discussions.

6.2 Aims of the Workshop

Margaret Quin, NRSP Programme Manager

PRESENTATION

Improving the poverty focus of NRSP's research on the management of natural resources

1

The main way by which NRSP can achieve its objectives, within the time frame of the programme (1995/96-2004/2005), is through its research projects

2

Aims of the workshop:

To enable present and future projects to achieve a stronger poverty focus in their NR management research

In what ways can the design and conduct of this research be improved so that it has greater potential to contribute to building livelihoods of poor people?

3

Looking back:

NRSP is 5½ years into its 10-year term

During the first 4 years, the programme mainly concerned biophysical NR research

At the same time, one component of the programme concerned research on socio-economic methodologies

4

Looking back:

SEM did influence the design and conduct of biophysical NR management research -

Notably in the use of participatory methods by biophysical research scientists

During the same period social analysis, as a component of NR management research, was weak and largely absent

5

Present times (through more recently commissioned projects):

Emphasised integrated natural resource management at farm and landscape levels

Sought to strengthen social analysis

Further strengthening of use of socio-economic methodologies

6

Taking stock:

With 4½ years of the programme remaining, research plans must be clearly focused on the programme's objectives

Plans are translated into active research through projects such that –

Programme objectives largely are achieved through projects

7

Hence:

– the tremendous importance that attaches to projects' research

This workshop:

Central to the work plan is use of projects' research experience to inform debate on how NRSP's research can achieve a stronger focus on poverty and thereby,

– improve its potential to impact on poverty

8

Workshop arrangements:

Questions – arrangements

Time – please keep strictly to time

Working Groups – list posted (revisions?)

Travel claim form – please complete and hand to David Short or a rapporteur who would pass it on to him

9

7 Workshop session 2: Project experience of characterising poverty and livelihood strategies

7.1 Household coping strategies in the semi-arid communal lands of Zimbabwe – description of livelihood strategies including the determinants of impoverishment and accumulation (R7545)

Kate Bird & Andrew Shepherd, International Development Dept, University of Birmingham

ABSTRACT

This research found a rich and complex picture. However, to isolate some of the key determinants of impoverishment and accumulation, we found markets, social capital, livestock and dependency ratios to be of significant importance. We found that the poorest experienced multiple deprivation and the causes of their problems could not necessarily be pinned on a single event or lack.

We found market failure to be a significant factor undermining the livelihoods of households in semi-arid Zimbabwe. This resulted in many households withdrawing from markets and moving into, or remaining trapped in, the production of low value food crops. The reliance on low input farming systems, the absence of credit and other input markets, the widespread use of barter, and the dramatic spatial and temporal price differentials for agricultural and consumer goods were symptomatic of severe market disintegration.

The impact of the 1992 drought, which had resulted in the erosion of assets and the death of livestock, was still apparent. Many households were still worse off (using a number of indicators) than they had been prior to the drought. The lack of 'bounce back' indicated a widespread and profound vulnerability to shocks. Geographical isolation, deepened by the paucity of rural feeder roads and quality public services, limited opportunities for livelihood diversification, so households were commonly vulnerable to co-variate risk. Many households were found to be in food deficit, even in 'good' years, and with limited sources of non-agricultural income earning opportunities, they were food insecure.

In the poorest households low levels of social capital were found to combine with limited access to labour and capital. Land was not necessarily found to be a binding constraint. Routes for enrichment appeared to be through communal gardening clubs (women) and communal farming clubs (predominantly men), which gave members access to advice, inputs including communal labour and markets. However, membership of farming clubs appeared to be closed to the poorest, who felt unable to host fellow members (no spare goats or millet for feasting at work parties).

1/ The research for project R7545 draws on work undertaken by IDD and ITDG in semi arid Zimbabwe: *'Coping Strategies of Poor Households in Semi-Arid Zimbabwe'*, which attempted to develop a descriptive model of coping and livelihood strategies in semi-arid Zimbabwe. The research drew on a rich dataset of 800 households interviewed in 1997 in Zimbabwe's semi-arid communal areas, of these over 600 were from semi-arid districts. We identified gaps from analysis of the dataset and a review of grey and published literature. We then undertook a period of gap-filling research in Gutu and Chivi Districts in Zimbabwe in July and August 2000.

PRESENTATION

Research Team

- Kate Bird - IDD
- Blessing Butaumocho - ITDG Zimbabwe
- Andrew Shepherd - IDD
- Andrew Scott - ITDG UK
- Daniel Start - IDD

1

Aim of Research

- Descriptive model of livelihoods and coping in Zimbabwe's semi-arid areas

2

Background

- ITDG dataset
  - 800 households in 4 districts
  - of these 600 households in 3 semi-arid districts
- Literature review
  - coping strategies
  - livelihoods
  - poverty
  - Zimbabwe
- Gap filling field work

3

Key finding/ hypothesis for future research

- **Diversification** within farm enterprises and to the non-farm sector = key strategy for most poor households in semi-arid areas

4

Key constraints

- disorganised rural markets
- absence of savings and working capital for enterprise start up and expansion - lack of institutions which would facilitate this
- poor management of low value CPRs (common property resources)

5

Continued

- limited access to some new forms social capital (farming clubs, gardening clubs)
- difficulties of rebuilding livestock - the key household asset - after 1992 drought (eroded by other droughts in '80s and '90s)

6

Livelihoods: Stylised facts

- poorer three income quintiles - agriculture and CPRs provide the majority of entitlements
  - ag and CPR improvements (including value-added opportunities) = of critical importance
  - ag related and CPR improvements will be more evenly spread than any in the non-farm sector

7

Continued

- currently little hope of integration into markets - too risky for poor.
  - Develop institutions
  - vertical integration?
  - Agro-trade financing?
  - Microfinance and village banking?

8

Continued

- middle income groups
  - diversifying into range of ag and non-ag enterprises
  - sell more crops
  - do more wage labouring
- Non-poor groups?
  - derive more income from non-ag sources - including wages

9

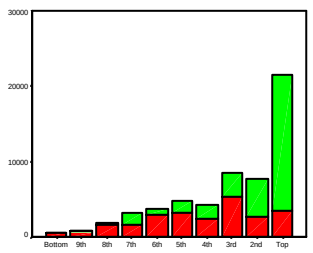
Continued

- Gardening and trading are the most important sources of income over all
  - few in poorest quintiles involved in trading, more involved in gardening
- Large proportion of exchange entitlements through barter
- For all groups - dependency ratios correlated with income

10

Distribution of farm and non-farm entitlement across income deciles in Chivi

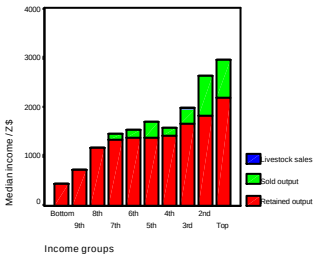
(red = farm, green = non-farm)



11

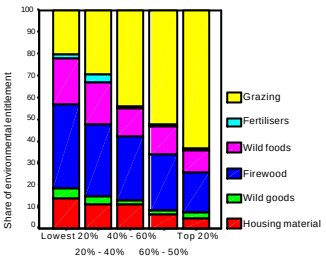
Median farm entitlements (Z$ per household per year) by income groups.

(shows poorest = largely disengaged from markets, but selling output can enrich)



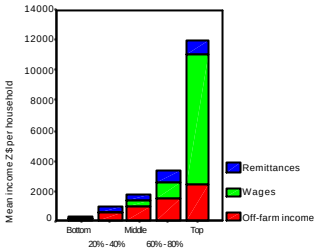
12

Different composition of environmental goods (Shindi Ward, Chivi)



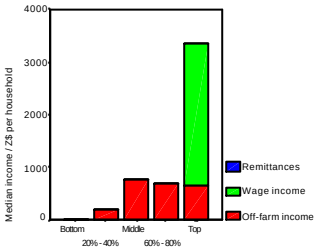
13

Wage and remittance income (mean)



14

Wage and remittance income (median)



15

Impoverishment

- Poverty, due to
  - shocks - drought (harvest failure, loss of livestock), pests, illness (HIV/AIDS, mental illness, chronic ill-health), divorce/ death of husband - loss of labour and assets
  - structural causes - e.g. access to land
  - life-cycle - older couples, with grown up children appeared to be least likely to be poor (no school fees, low dependency ratios)

16

Bounce back or coping?

- livestock ownership
  - lack of livestock insurance = key to lack of bounce back post 1992
- employment opportunities
- effective food for work

17

Accumulation

- **Diversification** into non-farm sector = pathway out of poverty
- Some **specialisation in non-farm** occupations indicates relative wealth and livelihood security
- **Education & better paid jobs** - but access to both increasingly difficult for the poor
- **Social capital** - relatives living in town = important (related to trade and jobs)

18

7.2 Household coping strategies in Tanzania – studies of livelihoods of pastoralists – role of links between poor and less poor in the coping strategies of the poor (R7805 & R7806)

Mike Morris, Natural Resources Institute (NRI)

ABSTRACT

Poverty has been characterised in terms of income or consumption poverty, human underdevelopment, social exclusion, ill-being, lack of capability and function, vulnerability, livelihood sustainability, lack of basic needs, and relative deprivation. Debate however persists, as to whether conventional economic approaches to its measurement in society at large, can adequately capture the multiple dimensions of poverty, or its complexity over time, either for individuals or for households. Increasing use is now made of participatory poverty assessments in which the poor themselves provide insights into their experience of poverty. While essentially subjective and local in scope, such methods are held to complement traditional household surveys and increase the potential for discerning poverty reduction initiatives (Narayan, 1997; Maxwell, 1999; Ellis, 2000).

The following issues, which have arisen during the unfolding of NRSP projects R7805 and R7806, relate to potential constraints to the realisation of benefits for poor people in Tanzania's semi-arid areas.

Target Institutions (TIs) and Institutional failure

Do TIs involved in research, policy analysis and development, have a comprehensive understanding of the multiple dimensions associated with poverty? While the projects are directly intended to contribute to this understanding, there appear to be significant institutional incompatibilities between these formal institutions and those located closer to or embedded in the culture and narrative of the community.

Despite reform of the local government system, persisting tension between central and local government over the years has impeded the necessary flow of resources to the latter. The presence of several short-term donor funded projects has also exacerbated and undermined the position of local government.

The existing capacity of some of these institutions may also impact on both the involvement of the poor in decision-making, and/or the design and implementation of pro-poor policy.

Not all TIs appear to be fully committed to interventions that target the poor. Donor conditionality ensures that organisations adhere to the rhetoric; but this does not necessary translate into action. Many key players are seriously sceptical about the merit of poverty focused initiatives.

Programme constraints and stereotypical ideas of pastoralist and other groups

Does NRSP's focus on semi-arid production systems (SAPS) discourage interest in more arid areas (<400mm), skewing the focus away from pastoralists and others whose livelihoods and interests may less readily be brought into the picture?

Similarly, does the focus on catchments square with the socio-economic and cultural considerations of communities?

The poor require social capital to negotiate bureaucracies, but can they afford to cooperate? Anecdotal evidence suggests that vertical social capital – links with the hierarchy – may be of greater benefit to the poor, than solidarity alone.

Given the complexity and dynamics behind the causes of poverty, if NRSP projects are to realise their purpose then a clearer understanding of potential approaches – focused, enabling, inclusive – to poverty, needs to be developed and promoted with all key players. Similarly the consideration of uptake pathways needs to more adequately reflect the manifold complexity of the institutional processes.

Mike Morris

PRESENTATION

R7805, Household Coping Strategies in Semi-arid Tanzania (NRI)

Purpose:

Livelihood strategies and assets of ***the poor*** in semi-arid Tanzania, will be comprehensively understood, together with the factors that have shaped those strategies, including social, economic, institutional and environmental change.

1

R7806, The Role of Human and Social Capital in NR Management (SUA)

Purpose:

The role of human and social capital in catchment management will be understood and new approaches to NR management that benefit ***the poor*** developed and validated.

2

The Objectives of this Presentation:

- Building on specific experiences from these two projects, to draw out points, which it is felt may have more general relevance to the NRSP.
- To contribute to the identification of specific approaches and/or tools, which will improve the effectiveness of the NRSP in meeting its poverty focus.

3

- DFID's Sustainable livelihood Approach
- NRSP, its predominant themes, SLAs and Poverty
- Target Institutions (TIs), SLAs and Poverty
  - Focus
  - Uptake
  - Demand

4

- Do the selected production systems (hillsides, semi-arid, high potential, peri-urban, land/water interface, and forest/agriculture interface) adequately accommodate SLAs?
- How are livelihood processes such as de-agrarianisation, migration, and livelihood diversification accommodated by the programme, or linked to poverty?
- Does the NRSP's focus on semi-arid production systems (SAPS), for example, discourage interest in more arid areas (<400mm), skewing the focus away from pastoralists and others, whose livelihoods and interests may be less readily identified with a single production system?

5

- How responsive are production systems and catchment approaches to incorporating analysis of the broader socio-economic and cultural considerations, and particularly those associated with remote stakeholders.
- Experience suggests that definitional and conceptual issues, associated for example, with 'coping strategies' and 'social capital' persist.

6

- TIs' levels of awareness and understanding of SLAs are very variable.
- TIs interests in and perceptions of poverty are both very different and very diverse; and there appear to be few opportunities and limited means or frameworks to share and explore their diverse positions.
- TIs appear to be fully committed to interventions that target the poor. Donor conditionality ensures that organisations adhere to the rhetoric, but this does not necessarily translate into action. Many key players (human agency) are seriously sceptical about the merit of poverty focused initiatives.

7

- On social capital too, TIs engaged in development, hold a range of views. Some argue that the poor primarily require social capital to negotiate bureaucracies ('linking' social capital), and that this is of greater benefit than solidarity ('bridging' social capital with other poor groups). Other TIs, notably NGOs, operate by promoting empowerment strategies - building on 'bridging' and 'bonding' social capital.

8

7.3 Livelihood strategies and resource use in the Bangladesh floodplain – opportunities for benefiting the poor where competing uses of resources occur (R6756 & R7562)

Julian Barr, CLUWRR, University of Newcastle

ABSTRACT

The research aimed to:

- Determine how different types of resource user utilise the land-water resource base of the floodplains in making a living
- Identify, and propose entry points to, the development needs of poorer stakeholder groups

The natural resource base and resource use patterns in typical floodplain landscapes were quantified using conventional NR research methods, such as agro-ecosystem mapping. A focus was the land-water dynamic, as traditionally development of the floodplain has been sectoral, failing to recognise its multiple resource/multiple use nature.

Resource use was disaggregated according to stakeholder groups. Households were stratified on land-ownership as a proxy for wealth, giving a quantitative measure with comparability to other studies. This was combined with wealth-ranking and participatory exercises to identify locally important stakeholder and wealth/poverty groups. A common set of functional stakeholder categories was found to be widely applicable between sites.

These two sets of activities together enabled the poorer floodplain resource user groups to be identified, and the key features of their livelihoods determined. The poor are, unsurprisingly, largely landless or fishers. Contrary to popular belief, only a small proportion (<3.5%) are fulltime fishers. Nonetheless aquatic resources are disproportionately more important for poorer households, who mostly follow a mixed livelihood strategy of some cultivation (including sharecropping), agricultural labouring, seasonal or subsistence fishing, and non-farm employment.

On the densely populated floodplains, different stakeholders' livelihood strategies interact through a network of positive and negative relationships, including competition for resource use. A systems approach to the identification of opportunities for the poor avoids the pitfall of recommendation domains, – namely of working with artificially isolated groups. To identify these opportunities, the project developed a methodology whereby stakeholder groups work separately and together in alternate stages to express livelihood constraints and develop feasible solutions to the issues that are of common concern, primarily management of common resources.

The process incorporates the views of traditionally disenfranchised groups, yet pays caution to avoid distancing local influentials. It facilitates the expression of the different stakeholder perspectives, and fosters systems learning between groups. The mutual learning process highlights interdependencies between them. This is the basis of building consensus and thence the development of co-management plans for resources common to most stakeholders.

The information generated by the process can be used to map different stakeholders' concerns on to the sustainable livelihoods framework.

The process has been used successfully in a number of Bangladesh environments, with some form of commons. It seems that the presence of a commons with fuzzy property rights allows a consensus to be reached, partly since everybody has room for manoeuvre. Without a commons, outcomes are biased by an hierarchical/patron-client social system. In these situations, the methodology can still identify discrete opportunities to benefit the poor.

The process is being refined in the current project, R7562, and has raised questions about levels of stakeholder disaggregation and number of participants to achieve representation. In a short project, it is not possible to demonstrate results through consensual action. Immediate impact is being assessed by measuring change in attitudes towards co-operative behaviour.

The process aims to feed DFID-B's stated need for models that operationalise community management of resources, especially processes that can build the confidence of communities to engage in discussions regarding the management of natural assets.

PRESENTATION

Livelihood strategies & resource use in the Bangladesh floodplain – opportunities for benefiting the poor where competing uses of resources occur R6756 & R7562

Julian Barr
CLUWRR
University of Newcastle

1

Bangladesh

★ Project sites

2

Aims

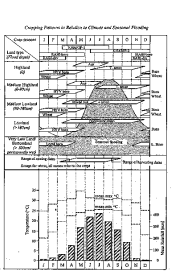
- Quantify land-water resource base
- Assess socially differentiated resource use
- Identify NR-oriented entry points for poorer groups

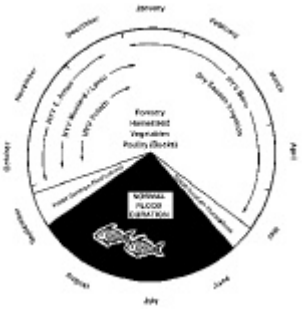
3

NR base: Floodplain land use mosaic

4

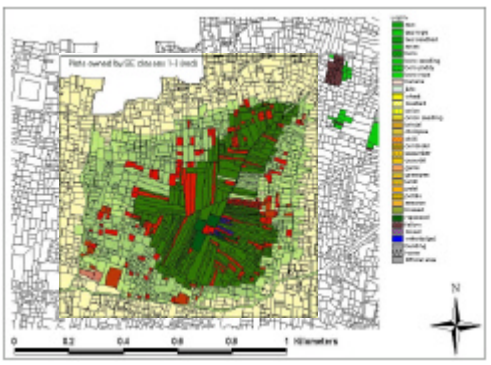
NR base: Traditional models of floodplain production





5

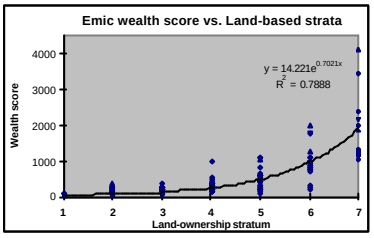
NR base: Land use, flooding and ownership



6

Socio-economic environment
Who are the poor?

- Local (relevant) vs. external (comparable) criteria



7

Socio-economic environment

- Functional stakeholder groups

AgCharan village, Charan beel Emic wealth categories	Mean wealth score (/100)	Basic functional groups
Landowner + salaried employment	91	
Small **landowner** + salaried employment	82	
Large **landowner**, not cultivator + low paid employment	73	Land owner
Large **landowner**, not cultivator - sharecrops out	64	
Small land holder plus **share cropping**	55	Sharecropper
No own land, **tenant farmer**	45	
Agricultural ***labourer***	36	
Fisherman (***labourer***)	27	[Fisher]
Carpenter (***labourer***)	18	Landless
Van/rickshaw driver	9	
Misc. ***labouring***	14	

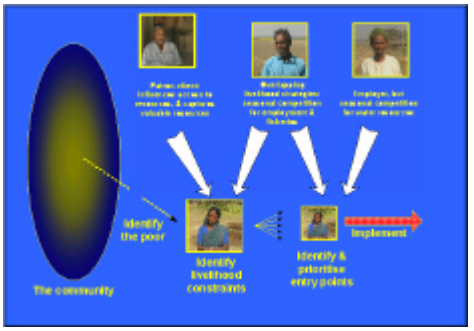
8

Improving livelihoods of the poor

- Holistic understanding of floodplain system
- Identify wealth groups & resource use
- Discriminate the poor & target their problems
- Identify systems constraints, develop pro-poor solutions

9

Recommendation domain approach



10

Casting the net wider

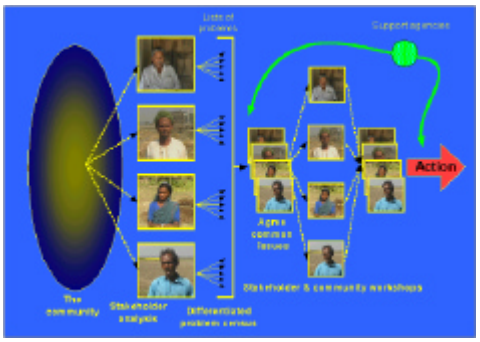
- Poor own v. few NRs to target
- Poor have unique access to few NRs
- Access to commons mediated by other stakeholders

- Pro-poor RD approach upsets the status quo?
- Need to avoid an equal and opposite reaction

- Deliberative & inclusive approach
- Builds social capital & consensus

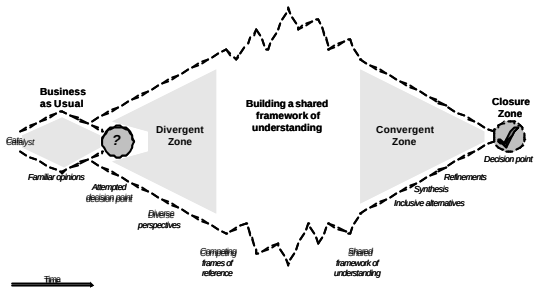
11

Participatory decision-making in practice



12

The participatory decision-making diamond



13

Issues

- Optimal level of representation at workshops (communities >3000 HH)?
- Diffusion of information from participants to wider community (neighbours)

14

Comparing livelihoods

Allocation of Needs Assessment Scores to the Sustainable Livelihoods Framework

	Vulnerability context				Assets (deficiency of)				Structures			Processes		
Stakeholder group	Trends	Shocks	Season -ality	Nat.	Social	Phys.	Human	Fin.	Public	Priv.	Intra-House hold	**Local inst.**	Formal govern-ance	P
Traditional fishermen	**44**				7			16				**33**		1
Landless	2		**23**	**15**	6	5	3	4	8	5		**32**		1
Sharecroppers	10	1	8	11			10	12	15	23		10		1
Med./large land owners	9	2	4	6		**26**	7	8	13	15		6	4	1

15

7.4 A study of coastal livelihoods in Laborie, St. Lucia – social, human and financial capital. How different resources are used and integrated into household strategies of different stakeholder groups (R7559)

Allan Smith, Caribbean Natural Resources Institute (CANARI), St Lucia, West Indies

ABSTRACT

Project R7559 aims to test and develop tools, methods and approaches critical to sustainable development of coastal communities in the Caribbean and other parts of the world. The project is located in Laborie Bay on the southwest coast of St. Lucia and is implemented by CANARI in collaboration with the Laborie Development Planning Committee, the Department of Fisheries of the Government of St. Lucia, and a number of local governmental and civil society organisations.

The primary focus is the application of these tools and methods to the management of reef resources, through two main processes. The first aims at increasing effective participation of stakeholders in all stages of planning and management, including the design and application of the research methods. The second process explores and documents technologies and management tools that can enhance the social and economic benefits that can be derived from the sustainable use of coastal resources.

The second focus is an evaluation of the impact of participation on the sustainability of resource use and on the livelihoods of people.

The third focus is the identification of alternatives to Marine Protected Areas. MPAs have been the principal instrument for tropical coastal resource management but are evidently not appropriate in all circumstances.

Initial studies of the use of reef resources have indicated a number of issues related to poverty. For example, the pot fishery on near shore reefs is limited to a small number of people. It may, therefore, be possible to conclude that these reefs do not represent a significant fishery resource. On the contrary, however, it may be that the reefs provide a resource base and livelihood for people no longer able to fish offshore, and a place to train young people, thus providing economic, social and cultural benefits for which there would be no alternatives. Preliminary results also suggest that some activities that have been discontinued, because of resource depletion, may have potential with appropriate management. The link between poverty and natural resource use will also be made through the exploration of new activities that can provide employment and create social benefits. Prominent among these is the development of nature-based tourism.

A number of experiments will be conducted to explore and document technologies and management tools that can enhance the benefits from reef resources. These include the cultivation of seaweed species previously harvested for food but now scarce due to over exploitation; the potential for small scale cooperatively managed sea-based tourism; and the improvement of the status of inshore reefs through a better understanding of the issues of solid waste management and pollution, particularly siltation.

An assessment of livelihood strategies is being conducted, sampling from a cross-section of categories within the community. The categories will be re-sampled annually to monitor changes in selected livelihoods, for example those based on the reef fishery, sea urchin harvesting, seaweed cultivation, and income from sea-based tourism.

PRESENTATION

The project

- Focused on the village of Laborie on St. Lucia's south west coast
- Three year project funded by DFID/NRSP, LWI
- A collaborative effort between CANARI, the LDPC, Dept. of Fisheries and IDS

1

Objectives

- Identify alternatives to Marine Protected Areas (the initial call)
- Test and develop tools and methods for coastal resource management (participatory institutions and sustainable use technologies) to improve livelihoods
- Evaluate the impact of participation on both people and resources

2

Phased approach

- Assessment (status of the resource, analysis of social capital, stakeholder analysis, description of current livelihood strategies)
- Experiments (four experiments have been selected and are currently being designed)
- Documentation of project and analysis of lessons learned at the end

3

Activities to date

- Formation of a steering committee
- Mapping of resources
- Case studies of people and places, and stakeholder analysis
- Information and dialogue (community exhibition, meetings, etc.)
- Selection of experiments

4

Early findings with respect to poverty

- Resources affected by pollution and harvesting (with external influences)
- Historical importance, some uses have disappeared for various reasons
- Natural capital is not a major source of income and employment for poor people
- Yet valuable, in both social and economic terms
- Potential for increased role in local economy

5

Challenges

- Need a better understanding of poverty, livelihood strategies and the place of reefs within them
- therefore, need for instruments to assess and monitor changes in strategies and links to resource management
- … as well as participation of stakeholders in design and implementation of experiments

6

8 Workshop session 3: Participatory methods and inclusive planning as a means to strengthen the involvement of the poor in research design and the research process

8.1 Development of a participatory action research methodology to assist communities in assessing implications and outcomes of community forestry (R6778)

Oliver Springate-Baginski, University of Leeds

ABSTRACT

Community Forestry (CF) – the policy of handing over forest management to the local people who depend on those forests for subsistence needs – has been implemented across the mid-hills of Nepal over the last decade. To date there are around 10,000 Forest User Groups (FUGs) formed. The 'natural' community exists at hamlet level, and the new CPR management institution is an external construct, made up of a number of hamlets.

The NRSP project, R6778, sought to assess the implication and outcomes of CF policy at the local level, in terms of the resource, the livelihoods of users and the institutional development of the FUGs.

The research project had to take account of a number of different considerations:

- Research was a collaborative undertaking, in conjunction with the Nepal UK Community Forestry Project (NUKCFP), whose purpose has been to support the implementation of CF policy. The main objective of the collaboration was to obtain an independent view of progress of CF and potentials for improved support, in particular how can FUGs develop institutionally, and what are forest users needs and views on forest management and use.
- The management of common property resources involves large heterogeneous groups. A non-extractive research approach implies some incentive for the groups to participate candidly in the research activity.
- Major bottlenecks to development of FUGs have been lack of awareness amongst forest users, and very weak external support structures to FUGs relative to their needs. Intensive contact with 'outsiders' from the NUKCFP raised forest users' expectations for support.

To address the research questions, in view of the above considerations, a Participatory Action Research (PAR) approach was developed. This also integrated the piloting of a 'Micro-Action-Planning' tool, in order for FUGs to identify their own needs and plan and implement actions to achieve these, including drawing in support from outside agencies.

PRESENTATION

In the presentation the main aspects of the PAR approach and the lessons learnt from its application are discussed.

Structure

Intro to Research project

- CF process – policy & Implementation
- Research needs – impact on institutional development. Forest, livelihoods

Aims of Method

- Choice – to support institutional development
- From background of team members & theory & Policy – recognition of potential of local institutions – how to fulfil this?

Method used

- Iterative PAR – combined / synthesis approach rather than by specific issue

- MAP tested
- Support needs identified and shared with district and National support agencies

Benefits/learning

- Very sensitive method to local field realities
- Very demanding

Introduction to research project

CF Background

- CF – has been implemented across mid-hills of Nepal
- FUG formation process – forest handed over to users – formed into Forest User Group membership according to locality and use of forest. Independent legal status. Constitution & Operation Plan drafted by FD staff in conjunction with locals
- To date there are around 10,000 Forest User Groups - ?has have been handed over, ?HHs are members of FUGs: Ave FUG is ?HA and ?HH
- New institution – 'constructed' – natural community at hamlet level. So far most institutions operating reasonably well to protect forest – but on passive mode – with problems of elite domination and equity

Research needs CF impacts

- On forest resource
- On development && sustainability of institution – identify processes and indicators
- On Livelihoods

Aims of Method

The institutional development of the FUGs is accepted as a key need. Hence research sought to explore how institutional development of FUGs could be achieved.

- Research to collaborate with NUKCFP – therefore need to involve them in research design and implementation – their main aim and information need was independent view of progress of CF and potentials for improved support: how can FUGs develop institutionally, and what are forest users needs and views on forest management and use
- CPR management – involves large groups. Non-extractive approach requires some benefit as part of research activity
- Major bottlenecks to development of FUGs are lack of awareness of legal rights, support opportunities and CF process, and lack of external support, particularly regarding meeting facilitation
- Support structures generally inadequate

    DoF are responsible for supporting large numbers of inaccessible FUGs

    FUGs need basic guidance, awareness raising, conflict resolution

    DoF have v. limited capacity and poor level of training of field staff

    DoF have legacy of command & control 'Dehra Dun' forestry model, and bureaucratic 'target-led approach

    FUGs need to become more self-sufficient in bottom-up need-based planning and demand-led in their support relationships

- The PAR research approach integrated the piloting of a 'Micro-Action-Planning' approach for FUGs to identify their own needs and plan and implement actions to achieve these, including drawing in support from outside agencies. The results after 1 year were assessed.

Oliver Springate-Baginski

Method used

Combined information gathering and action-planning facilitation – support needs assessment

- Iterative PAR – combined / synthesis approach rather than by specific issue
- MAP tested
- Support needs identified and shared with district and National support agencies
- Research team – Co-ordinator, 2* NUKCFP field staff (Leeds Uni. PhD candidates), 2* female facilitators
- Method depended on intensive input of effort 7 days a week dawn to dusk over 4 months field visit, repeated over 2 years. – and critically depends on energy, endurance and skill of local team

The PAR method involved field visit to a number of FUGs across different districts:

- District HQ support staff met, purpose of research discussed, and field staff and District Officers invited to join research team
- FUG visit – explanation of research visit, rapport building, needs of locals discussed, PRA and social mapping exercises. Wealth ranking of village inhabitants. Hamlet meetings scheduled
- Participatory Forest resource assessment and discussion of productive potentials of forest with active management
- Hamlet group meetings (M/F separate) semi-structured according to research agenda – action planning for tole development and wishes and needs from FUG development: agenda drafted
- Household survey – 20% random stratified by wealth rank
- Key informant interviews – most vocal or knowledgeable community members identified
- Record books of FUG (decisions taken in Committee and General meetings) copied
- Situation analysis of FUG – hamlet action-plans collated
- General meeting held with all users:

    Strengths and Weaknesses Opportunities and Constraints discussed and consensus reached

    Outstanding issues within FUG discussed – e.g. Equity & elite bias / fund transparency – and reforms proposed

    Action plans of each hamlet discussed and Micro-Action Plan for FUG developed by negotiation. Responsibilities for Implementation allocated

- After GM, return to Dist. HQ to discuss learning with DFO – and support needs of the FUG in question.
- After 12 months a repeat visit was performed, according to a similar pattern. Specific research issues were pursues, and the implementation of the MAP was assessed.

Learnings

- PAR and MAP very valuable learning experience for all concerned from local to national and international - very precious view of field reality and support needs can be brought to attention of National Govt. policy-makers – to highlight bottlenecks and spectrum of issues arising
- Main support need for FUGs is group-meeting facilitation – support to practicalities of collective action

Oliver Springate-Baginski

Challenges / critique

- Amount of information generated (almost) overwhelming – must be carefully and meticulously managed – much input needed to control / collate etc – and this needs to happen as close to the data generation as possible to reduce lead-times for feed-back of results etc
- Field activities v. strenuous – highly dependent on talent, motivation and initiative of local staff
- There is a danger that Action-planning methods might be used to look to the future without considering the present. We did do SWOT analysis, and did discuss the present situation – in order to see where the bottlenecks existed
- Things change over the year – need to get 1st iteration right to use 2nd iteration

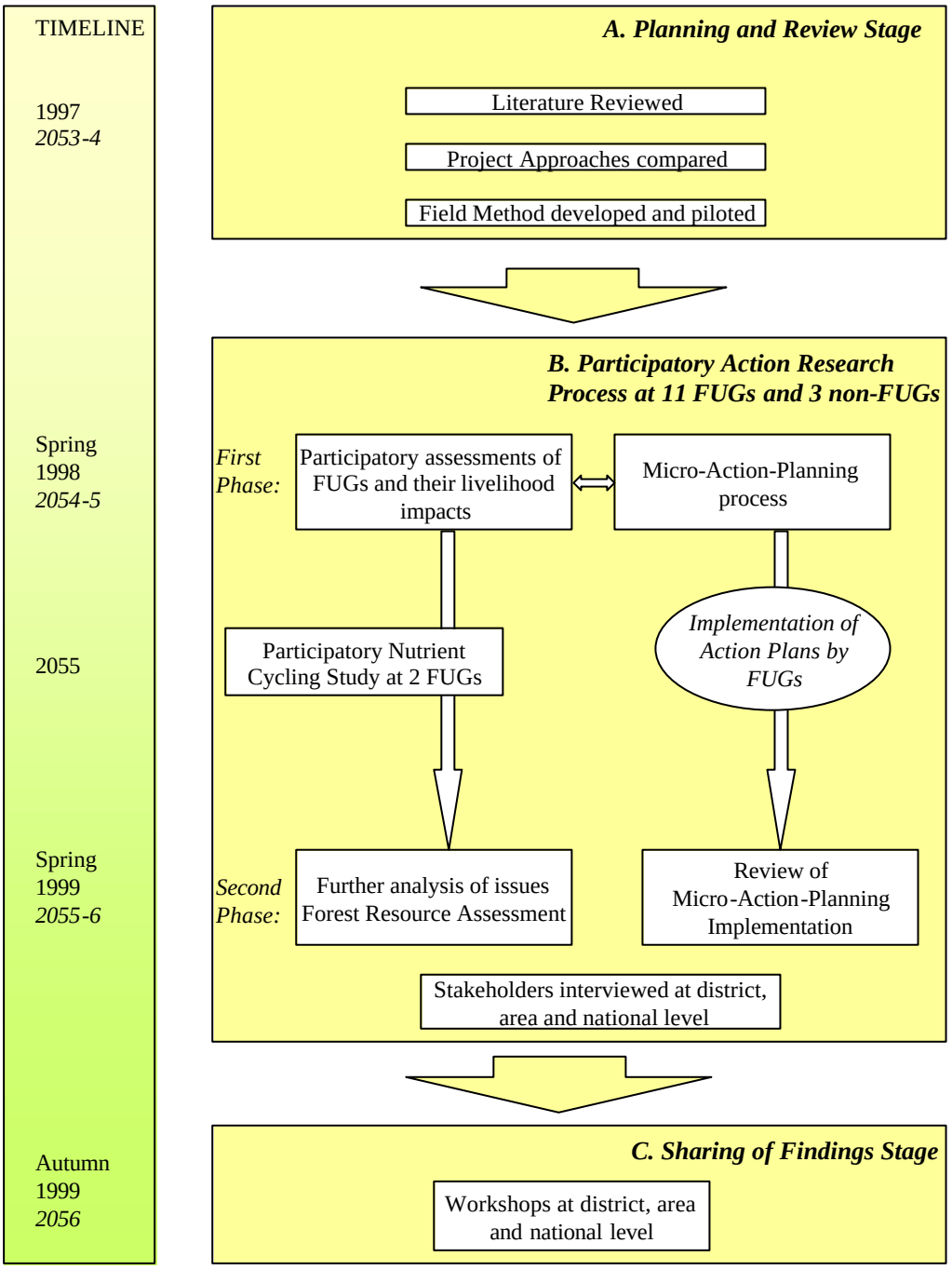


Figure X: Research Project Method

8.2 Participation in coastal zone decision-making by diverse individuals, groups and institutions (R6919 & R7408)

Kate Brown, ODG, University of East Anglia

ABSTRACT

Coastal resources are vital for the subsistence and survival of large numbers of people in small islands and many other developing countries. But management of these resources is problematic, with many competing users and uses; very often the poor lose out in strategies to develop the coast. New institutional arrangements and innovative decision making and management techniques are required to insure that those normally excluded articulate their priorities and benefit from development of these resources.

In many coastal zones, as in our research site the Buccoo Reef Marine Park in Tobago, there are direct conflicts between different uses and users. For example, the objectives of marine and coastal biodiversity conservation may conflict with extractive uses of resources. In the Caribbean, the pressures of rapidly expanding tourism are seen to conflict with many local livelihoods based on extraction as well as with conservation. As a result, management of coastal zones and marine protected areas has been ineffective in meeting any of their objectives, and non-compliance and open hostility between resource users is often the norm.

The classic trade off in these areas is between environmental conservation, expanding tourism revenues, and local social, economic and cultural well-being. Our research aimed to find means of assessing these trade-offs from the perspectives of different actors so that they could evaluate different management options. This is used to support the development of management approaches which all actors have confidence in and which can facilitate legitimate and equitable decision-making.

The approach we developed is termed 'trade off analysis'. It involves a mix of techniques, using stakeholder analysis, participatory techniques such as focus groups, multi-criteria analysis and consensus building. The research has resulted in the formation of a stakeholder group which is engaging with local NGOs and government to develop co-management strategies for the marine protected area.

The key lessons from this research are:

- Inclusiveness is all important – the initial stakeholder analysis is key in identifying and analysing all relevant stakeholders
- Need to utilise different mechanisms and methods to facilitate the participation of all stakeholders
- Maintaining the flow of information and feedback throughout to inform all stakeholders
- Validating diverse knowledge of different actors and not privileging one view
- Using small groups and building confidence and trust
- Consensus is not necessarily an end-point but part of an on-going negotiation and a means of finding common priorities and action points.

Next steps to strengthen participatory decision-making and greater inclusiveness include:

- Analysing how participatory processes are institutionalised in different contexts
- Design of appropriate institutions, as existing institutions reflect economic, power, and other biases
- Means of shifting the balance of power and decision-making procedures to give greater voice and priority to the poor and other marginalised or vulnerable people.

These conclusions suggest a need to move beyond 'participation' as a means of making decisions more equitable and more relevant to the poor. A change in the way institutions operate, including legal frameworks, local government and informal property rights, is also necessary in order to benefit the poor.

PRESENTATION

Participation in Coastal Zone

Decision-making by Diverse Individuals, Groups and Institutions

Katrina Brown, UEA

- Coastal zones – sites of complexity, conflicts and contrasts
- Key lessons from the research – mechanisms for stakeholder involvement
- How can we foster inclusiveness in decision-making?

1

Characteristics of Land-water Interface Systems

Complexity – uses and users

Pressures -tourism, environmental change, migration, pollution, land use change

Multiple use resources
poorly defined property rights
external threats
conflicts / competition
poor policy implementation / lack of co-ordination

Contrasts - livelihoods for the poor
playgrounds for the rich

How can we trade-off economic, social, environmental impacts of different development options or needs of poor versus desires of rich?

2

Trade-off Analysis

A means of evaluating the trade-offs between users and uses and engaging with full range of stakeholders for decision making and planning in coastal zone

Techniques / action	**Objective / achievement**
Stakeholder analysis	Identify full range of stakeholders and their interests
Develop scenarios of future development options – discuss in Focus Groups	Envisioning exercises with different stakeholder groups
Estimate environmental, economic and social impacts of development scenarios using locally defined measures using range of quantitative and qualitative techniques, surveys	Explore stakeholder perceptions of change, discuss all information, get stakeholder feedback
Focus groups, PRA in small groups	Define different stakeholder priorities for decision making – identify basis for consensus building
Consensus building techniques in plenary workshops	Bringing all stakeholder groups together to identify priorities for action
Organising for change– forming the Buccoo Reef	Institutionalising participatory approaches to

3

Lessons from Trade-off Analysis

- Inclusiveness is all important – the initial stakeholder analysis is key in identifying and analysing all relevant stakeholders
- Need to utilise different mechanisms and methods to facilitate the participation of all stakeholders
- Maintaining the flow of information and feedback throughout to inform all stakeholders
- Validating diverse knowledge of different actors and not privileging one view
- Using small groups and building confidence and trust
- Consensus is not necessarily an end-point but part of an on-going negotiation and a means of finding common priorities and action points

4

How to foster greater inclusiveness?

- Institutionalising participatory processes
- Which institutions are appropriate – do we need new institutions?
  e.g. the Buccoo Reef Stakeholder Group; policy integration
- Shifting the balance in favour of poor, marginalised and excluded

Beyond participation as a mechanism

5

8.3 Demand assessment for technologies for on-farm management of natural resources – household sampling decisions and experience of using participatory farm management methods (R7537)

Chris Garforth, AERDD, University of Reading

ABSTRACT

The NRSP project, R7537, was a seven month study designed to inform the programme's future research commissioning. It was intended to (1) identify reasons for low uptake of existing research-based technologies relating to soil and water conservation, soil nutrient management, and plant genetic resources in semi-arid systems in Zimbabwe and Tanzania, and quantify these reasons for different categories of household, (2) assess the potential of available technologies to meet production system constraints, and (3) quantify the demand for different types of NRM technology among different categories of rural household.

These outputs called for a thorough analysis of constraints and of previous experience of new technologies (practices, new PGRs), together with conclusions relevant to a large population of households in crop based semi-arid systems. We therefore used a combination of participatory qualitative, and quantitative survey, methods. The research design and methodology, developed at an initial workshop, involved:

- Purposive selection of study sites: two sites in each country where NRM technologies have been promoted in the past
- PRA to explore male / female perspectives and categorise those who have and have not adopted, and those who are likely and not likely to adopt NRM technologies
- Participatory Farmer Management (PFM, – Scored Causal Diagrams [SCDs], Participatory Budgets) to quantify farmers' assessments of problems, causes and technologies
- Sample household survey, to estimate the distribution of the characteristics within the population.

Sampling for the household survey raised the following issues: concern over bias in village selection because of accessibility; criteria for selection of respondent within household; application of criteria agreed in workshops in the reality of the field context; maintaining comparability in procedure between sites and countries. Selection of participants for the PRA was also problematic. We were unable to follow the criteria we had set before the fieldwork: for example, at one site women and men refused to meet in separate focus groups

The qualitative and quantitative methods produced some unexpected differences in the analysis of farm level constraints. This may be due to a combination of factors: question wording, the context of the questions, the individual (or household) versus group setting for the data collection.

Experience with the PFM methods was mainly positive: our research collaborators found the Participatory Budgets (PBs) particularly useful in exploring the economics of NRM technologies from farmers' perspectives. They engaged the interest of the participating farmers, who felt that they were getting something useful out of the exercise. Their use in the field attracted the attention of other professionals on the periphery of the research, who saw potential application in their own work. Our experience, however, raises the following issues: the need for:

- Adequate training and practice, so that researchers in the field are completely confident in their use,
- Guidance in the interpretation of the resulting SCDs and PBs, and

Guidance on the aggregation of information from different SCDs and PBs.

PRESENTATION

Sampling and PFM issues

R7537
Demand Assessment for
NRM technologies

1

Expected outputs

1. Identify reasons for low uptake of NRM technologies by different categories of household
2. Assess potential of NRM technologies to meet production system constraints
3. Quantify demand for NRM technologies

2

Research strategy

- desk review of non-adoption
- workshop in UK to develop methods
- interviews with NR researchers
- PRA to identify characteristics associated with adoption/non-adoption
- PFM (participatory farm management methods) to analyse system constraints
- survey to estimate distribution

3

Survey: sampling issues

- "roadside" bias in selection of villages
- condition of road
- political situation > fuel availability
- budget
- stratification: gender? poverty? adoption?
- respondent within household
- decision maker? gender balance?

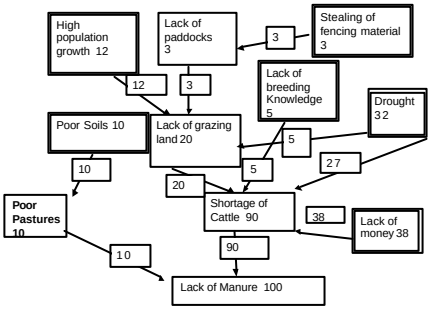
4

Scored Causal Diagram

- identifies cause and effects of problems
- identifies "root" causes
- scoring gives relative importance
- procedure:
  - list problems and causes
  - show cause-effect relationships
  - scoring

5

Scored Causal Diagram: Mahoto village, Zimuto, Zimbabwe



6

Participatory budgets

- quantify resource inputs and outputs over time
- enterprise or resource specific
- individual farm
- "average" for a particular type or size of farm / enterprise
- "adopters" cp. "non-adopters"

7

Participatory budget for maize without improved manure

PB by Non-Adopters of Improved Compost Manure in Mbaimbai Village

	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Total
Activities	Load of ash and leaf litter	hoes ploughing, planting and ashing	Weeding	Weeding	green mealies	green mealies	Harvesting into stacks	Shelling	sell	sell	sell	Buying seed	
Inputs	2 carts	1 acre	Hoes	Hoes								10kg	
People working	4	4	4	4	1	1	4	4					
Time spent	4hrs	420hrs	112hrs	84hrs	2.5 hrs	1hr	68hrs	90hrs					
Cost of inputs	$100	$1000	$350	$300	$50	$20	$350	$500				$400	$3070
Output					2 bags	275cobs		12 bags					
Revenue					$825	$825			$1000	$1000	$1000		$4650
Gross Margin													$1580

8

PFM experience

- engage participation
- visual feedback to farmers
- interest among partners and stakeholders
- self-selection
- analysis
- interpretation
- aggregation
- training

9

Differences in findings

- Farm level constraints
- Levels of adoption

Possible reasons:

- informants
- question wording
- question context
- context (group v. individual)

10

8.4 Community-led tools for enhancing natural resource management – problems and progress in ensuring the inclusion of poor households (R7584)

Jamie Fairbairn, University of Leeds

ABSTRACT

The purpose of the project (R7584) in Tarija, Bolivia, is to link communities with local professionals (LPs), NGOs and local government (municipalities) in order to enable local people to better manage natural resources and enhance production. Those requiring most motivation are the poorer households. Formal assessment of poverty is not a specific aim of the project but identification and inclusion of poorest households in project activities is a necessary goal.

Defining the poorest

The vast majority of those living in the project communities are poor – the focus here is on those who are poorer still. Local perceptions in measures of poverty are the most meaningful for developing community-led tools. Interviews have revealed that measures of poverty vary by community and depend on the predominant household activities. Households are considered poorest: in Tojo, if there is little family labour available, or little means to hire help; in Juntas, if they possess little or no land; and in Chorcoya, if they own little or no livestock. In response, the strategy to locate these households was twofold: consulting with those who knew the community well, such as teachers (who carry out an annual census) and community leaders; and verification by way of a project census carried out in each household by the local social coordinator. The poorest households are less able to migrate regularly to generate cash and are more vulnerable to the effects of environmental hazards.

Problems

The poorest households are excluded from projects for many reasons: the poorest are not always able to attend community meetings; the poorest may not wish to participate in community-led activities; the poorest may live farthest from the community centre; the least poor come forward first, are more vocal in meetings and are more likely to experiment.

Strategy and progress

The challenge is to enhance production and resource conservation for the majority of households whilst not further excluding the poorest, indeed by further including them. The following steps have been initiated:

- Motivate community authorities and group leaders to include the poorest in project working groups.
- Motivate poorest households. This is done by way of regular visits by project staff to assess changing priorities, ensure poorest households are informed of project activities if they are unable to attend, encouraging them to attend all meetings and workshops (children often are more willing to attend and then they pass on information to parents). Informal interviews with individuals are essential to complement meetings and workshops.
- Provide the poorest with skills that will be in demand as the community as a whole prospers. For example children and poorest are being provided with skills in grafting and pruning fruit trees – skills in increasing demand as fruit production recovers.

Jamie Fairbairn

PRESENTATION

Community-led tools for enhancing natural resource management – problems and progress in ensuring inclusion of poor households – R7584

- Project aims
- Where?
- Who are poorest?
- Problems
- Progress

1

Locally Perceived Measures of Poverty

Community	Perceived measure of poverty	Examples
JUNTAS (interandean valleys)	Landless or little land	Children of large families
CHORCOYA (altiplano)	Few livestock	The old – livestock distributed among offspring
TOJO (dry valleys)	Little family labour or means to hire help	Widows Children migrated

MIGRATION

NATURAL HAZARDS AND SOCIAL VULNERABILITY

SEASONAL, CYCLICAL, COMPLEX

2

Progress

Creating conditions for dialogue and action with poorest

- Urge community leaders to include poorest
- Motivating poorer households
- Providing poor with skills

3

9 Workshop session 5: Strengthening the links between social, economic and technical research to improve the impact of research that concerns the poor and their use and management of natural resources

9.1 Anecdotal information on farmers' views and practices is not an acceptable substitute for social analysis – experiences from the viewpoints of biophysical and social scientists (R6751, R7600 & R7471)

Elizabeth Robinson, Stephanie White and Robert M Brook, University of Wales, Bangor

ABSTRACT

Biophysical scientists working in rice based cropping systems know what's best for farmers. "To improve their livelihoods farmers must increase yields and production. To do this they must overcome the predominant constraint to production which is declining soil fertility". Rarely does this research community question the link between production and livelihoods, or indeed how soil, water, pests and weed management interact to determine production. Social science input, if required by the donor, is tacked on by biophysical scientists as an after thought, often with few funds and little integration with the underlying research. Conversely it seems that social scientist will rarely involve biophysical scientists in their endeavors.

If efforts are not made to understand technological challenges in the context of farmers' livelihoods, scientists' (often anecdotal) perceptions of farmers will generally be perpetuated and the impact of any scientific findings low. Recently several NRSP and other DFID-funded projects have been trying out different approaches, not only to make the contribution of knowledge about farmers and their livelihoods less anecdotal, but also to integrate social science and biological science contributions.

In this presentation, examples from three biological-science-led projects in Bangladesh are given.

- The NRSP project (R6750) on soil fertility and organic matter dynamics in (high potential) floodplain rice ecosystems in Bangladesh, involved monitoring farmers' management practices in their fields. The project did not have a socio-economist as part of the team. The project members were aware there were interesting socio-economic reasons and implications of the decisions that farmers took, but were unable describe or document livelihoods in a socio-economic manner that would have enabled a more accurate interpretation of information already gained by the project. Set methodologies were tried, but it was not clear if the local staff conducting questionnaires were using the correct terminology and techniques.
- A more recent CPP "rice weeds" project in Bangladesh has attempted to integrate from the start of the project. Such an approach can be time consuming and costly, but hopefully effective. For example, economist and weed scientist accompanied each other on field visits and, based on earlier focus group discussions, prepared together a detailed questionnaire survey. The survey will be used to identify more rigorously the relationship between, for example, land tenure and incentives to weed more intensively or adopt herbicide, cropping intensification and weed problems and solutions.
- In an NRSP project (R7600) to assess the feasibility of ICM in Bangladesh, the team demonstrated how participatory approaches such as scored causal diagrams could improve on existing understanding of the key constraints and priorities for farmers. Previous approaches had simply asked the farmers to identify and prioritise their problems. This approach could not get to the root cause of the farmers' problems nor link farmers' problems with the scientists' solutions that may not address a farmer priority or offer a cost-effective solution.

Experiences in the peri-urban interface from Hubli Dharwad, India, were gained during various NRSP projects – R6825 (Baseline Study) and R7099 (Waste Utilization Study). Knowledge from these and other peri-urban interface projects was consolidated in R7549, and assessed to determine adequacy for formulation and implementation of pilot natural resource management projects. For R7099, limited social input was included which sharpened the participatory focus and the inclusion of poorer farmers. However, little information was gathered on livelihoods and social interactions.

The Indian team implementing R6825 had little previous exposure to 'participatory' methodologies (amounting really to group activities), and thus early surveys of 25 peri-urban villages were very descriptive and had little social content. In response, the team was given some training in participatory methods, following which four villages were re-surveyed. The team conducted 'PRA' type activities (matrix ranking, Venn diagrams, time charts of changes in cropping systems and rainfall, labour inputs, ranking of constraints), although the exercises were still largely extractive in nature. They provided better information on changes in farming activities, but nothing on reasons for changes nor on the effects of the peri-urban interface on livelihood strategies.

For R7099, limited social input was included which sharpened the participatory focus and the inclusion of poorer farmers. However, little information was gathered on livelihoods and social interactions. One of the project's conclusions was that at present prices it is not likely that poor farmers would be able to afford improved urban solid waste, but it has to be admitted that this was based on surmise rather than hard evidence of farmers' purchasing power or willingness to pay.

PRESENTATION

"Anecdotal Information on Farmers' Views and Practices is Not an Acceptable Substitute for Social Analysis"

Elizabeth Robinson & Stephanie White

1

Today's presentation

- Progressive examples of efforts to integrate rigorous social and rigorous bio-physical analyses and methodologies
- Experiences in the peri-urban interface in India

2

Working with BRRI* Scientists "Traditional"

Stylised characteristics	Limitations
• Scientists prioritise according to their own research agendas • Their role to find solutions to biophysical constraints • Research constraints relatively easily defined	• Scientists involved in farmers' issues for many years and often think they know best • Farmers conditioned to expect output from scientists • Anecdotal perceptions based on discussions with few farmers tend to be perpetuated

*Bangladesh Rice Research Institute

3

Involving Social Analysis (PETRRA)

Stylised characteristics	Limitations
• PETRRA attempted to introduce "farmer perspective" • Very in depth PRAs & social mapping • Prioritisation of farmer problems	• Threatening to scientists – Can upset status quo • Rigorous social analysis but much of it ignored • "So what" is missing • Scientists may only pay lip service if they are not convinced of merits • Senior agriculture officials pre-determined research

4

Integrating Social Analysis (R7600)

Stylised characteristics	Limitations
• methodologies to analyse biophysical-socio-economic interactions • Relevant social analysis to biophysical research • Use PFM scored causal diagrams to identify root causes of farmers problems	• Not necessarily representative of farmers • Rarely reaches poor farmers/ landless • Extractive process • Designed and executed by project team separate from BRRI scientists

5

Integrated Social Analysis (CPP R7471)

Stylised characteristics	Limitations
• Engaging farmers throughout project • Bio-phys. and soc. sci. research jointly planned • Empowering rather than extractive 'participatory approaches' • e.g. exploring access to irrigation water and impact on weed management • Ensuring representative population sample	• Still may not address the landless • May dilute individuals' disciplinary focus • Possibly time consuming for farmers • Does not guarantee buy-in from overseas collaborators

6

Some Key Issues

- Moving from anecdotal to rigorous social analysis is not simple
  - Entrenched research approaches
  - Requires understanding of other disciplines' perspectives
- Incentive structures may need to be changed to promote integrated approaches
- Rigorous social analysis not sufficient, also need relevant and integrated analysis
- Approach costly but much higher impact of research anticipated
- Does not guarantee a poverty focus

7

Peri-Urban Interface, Hubli-Dharwad, India

Robert Brook, School of Agricultural and Forest Sciences, University of Wales, Bangor

- **R6825 Baseline Study (1997)**
  Surveys of 25 peri-urban villages
  'PRA' type methodologies used in four villages
  Unable to determine reasons for change in farming systems and almost nothing on livelihood strategies
- **R7099 Waste Utilization (1998-99)**
  Deliberate targeting of poor farmers
- **R7549 Consolidation of Knowledge (2000)**

8

R7099 Social input sharpened the participatory focus and inclusion of poor farmers

9

Men and women in separate groups

10

Some conclusions from R7099

- Many farmers regarded urban solid waste as a valuable source of organic matter
- Quality is declining due to greater content of plastic, glass, etc.
- Processing urban solid waste greatly increased cost but delivered demonstrable agronomic benefits
- Concluded that poor farmers would be unable to afford processed solid waste
- However, this conclusion was based on no hard evidence of farmers' purchasing power or willingness to pay

11

9.2 Experience of inter-disciplinary research in the context of the development of a methodology for incorporating indigenous knowledge into NR research (R6744)

Peter Dixon, University of Durham

ABSTRACT

The aims of the project were to develop a methodology for incorporating indigenous knowledge (IK) into NR research, develop an holistic conceptual model of livelihood strategies of marginal and landless producers, and establish an informal network for the exchange of IK on local NRM practices. These were to be achieved through collaboration with NR scientists on an NRSP project in Land Water Interface portfolio (R6756) that sought a systems understanding of livelihood strategies and their constraints on the Bangladesh floodplains. Due to the limited time available at this workshop, this presentation will focus on the interdisciplinary research (IDR) experience in the context of strengthening links between social, economic and technical research to enhance research outputs relevant to DFID's goal of poverty reduction.

A basic assumption underpinning the approach taken was that, even in a poor country such as Bangladesh, communities are rarely homogeneous. It was hypothesised that different socio-economic strata on the floodplains had different livelihood strategies and different IK. IK was understood in the broadest sense as meaning not only technical NR knowledge but also local knowledge concerning their assets, needs, vulnerabilities, and the transforming structures and processes which impact upon their livelihoods.

Initial steps in the research process included a reconnaissance social survey (RSS) of all households (HHs) at the study sites, and the selection of a representative sub-sample of HHs from this. Both biophysical and social data were grounded by reference to HHs. A wealth ranking exercise broadly validated the basis (landholding) used for stratifying HHs. The HH was taken as the basic unit of analysis, with intra-household transfers not being considered.

Research fell into two phases: a phase of monitoring by natural scientists of who was doing what where and when with associated IK data collection by social scientists, and a second phase of validating the model derived by means of an intervention.

There were a number of methodological tensions in the projects.

- Between commencing with 'characterisation ' base-line studies before testing the model through an intervention, versus participatively identifying a problem and developing a suite of solutions to be applied, monitored and evaluated.
- There was a tension in the project teams between seeing NR from a 'hard' systems perspective (a natural science approach) and seeing NR from a 'soft systems' livelihoods perspective (a social science approach).

Conclusions

- IDR is facilitated when there is a problem-orientation and regular face-to-face contact between team members (including local NR users). Characterisation studies and surveys tend to be mono-disciplinary and lack feedback loops, while the transaction costs of mono-disciplinary report writing (and emailing) and responding to these are a constraint to innovative thinking, learning and problem solving.
- Qualitative data no less than quantitative data needs to be reliable. Where the 'measuring instrument' is human, data needs to be well grounded, and validated through 'triangulation' techniques.
- Qualitative data can considerably enhance NR research, but it needs to be understood as being broader than indigenous technical knowledge (ITK) and to include the perspectives of different user groups on NR management and their reasons for behaving as they do.

The IK data needs may be very different in different NRSP production systems. Their particular IK requirements need to be explored with them.

PRESENTATION

IDR in the context of developing a methodology for incorporating IK into NR Research

P-J.Dixon

1

Bangladesh

- population 125 million
- one of the world's poorest countries.
- 50% of the population are poor
- 50% are classed as functionally landless.

- the proportion of HHs below the poverty line has fallen over 20 years from 80% to 37% in 1996
- Non-poor = 27%, 'Tomorrow's poor = 21%, Moderate poor = 29%, Extreme poor = 23% (BIDS)
- but rising inequality has reduced the rate of poverty reduction
- Bangladesh is in 144th pla
  œ on the UNDP's Human Development Index (HDI) ranking

- agricultural sector is the engine of the economy and the main source of employment.
  the agricultural wage makes up 15% of the income of non-farm HHs
- agro-processing provides the core of industrial activity
- non-agricultural employment makes up 50% of non-farm HH income
- fishing contributes about 3% of GDP.
- 8% of the population are f/t fishers, 73% are part-time fishers
- Government has historically taken a sectoral approach to the development

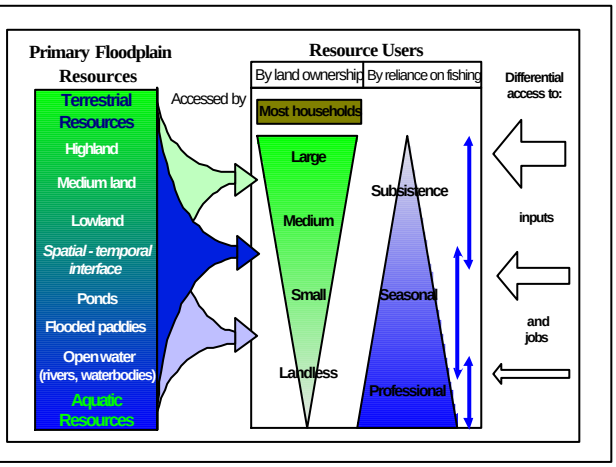
2

3

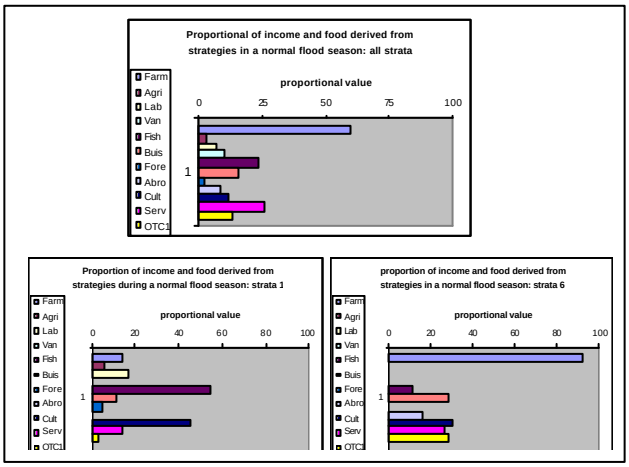
Classification of households on the basis of land-holding:

Stratum	Land owned (acres)	Socio-economic category
1.	<0.049	Landless - Categories I & II
2.	0.05 - 0.49	Landless - Category III
3.	0.5 - 0.99	Marginal
4.	1.0 - 2.49	Small
5.	2.5 - 4.99	Medium – I
6.	5.0 - 7.49	Medium– II
7.	>7.5	Large
F	normally <0.049	Professional fishers)

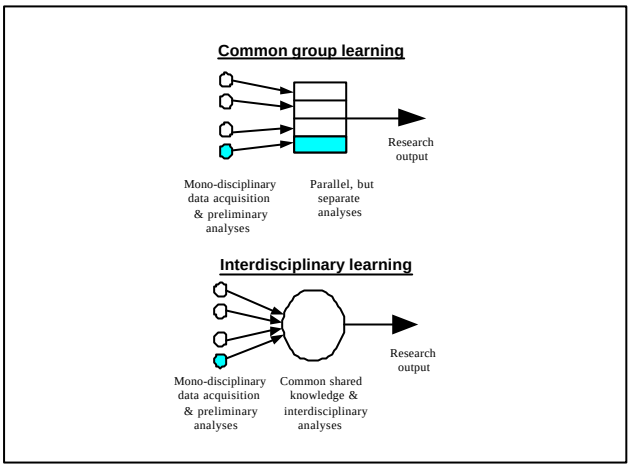
4



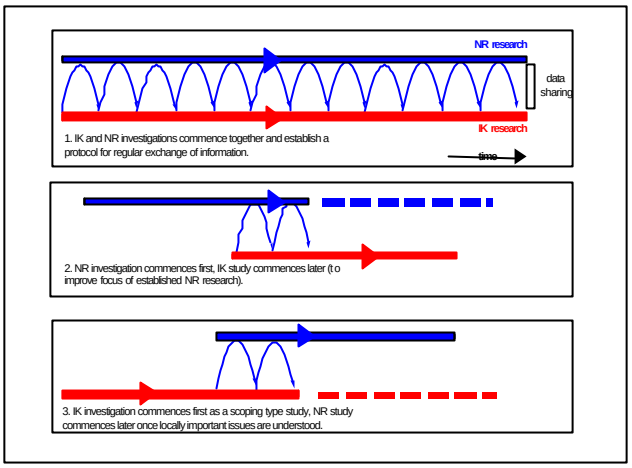
5



6



7

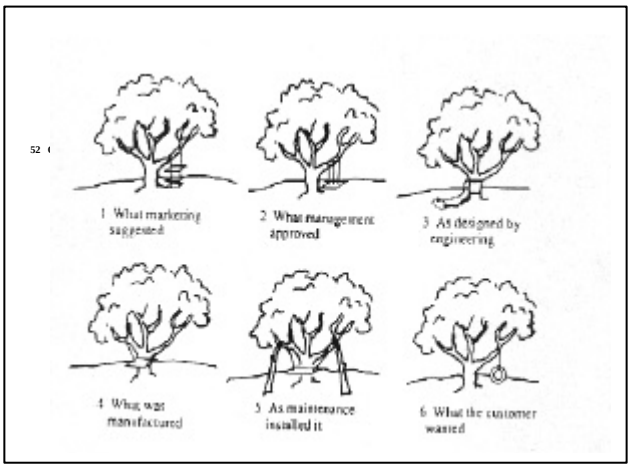


8

Answers to Problem Census

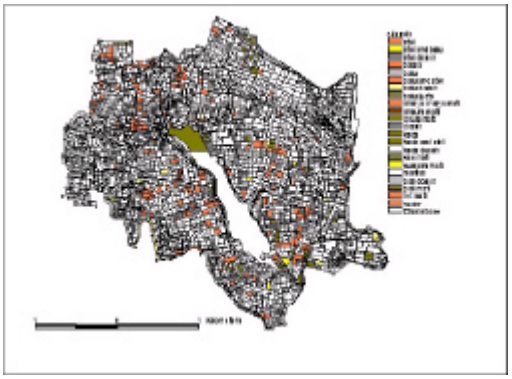
Women from poor families	Women from non -poor families
1. **Landlessness** ; no land even for homesteads	1 **Lack of capital and cash**
2. Extreme poverty; lack of capital	2 **Lack of homestead land**
3. No room for stock rearing	3. Lack of veterinary facilities for small stock
4. No land for sharecropping	4. Disease of vegetables, fruit and garden plants
5. **Fuel crisis**; difficult to gather biomass fuel	5. Scarcity of domestic servant during harvest
6. **No CPR for stock needs**	6. Scarcity of crop land
7. **Pay discrimination** half wage of male workers	7. No access roads to the homesteads
8. Fish and mollusc/ snail/crab very scarce; wild vegetable, fruits, seeds from village trees scarce	8. Insects destroying the fruits on trees
9. High prices of fertilisers, insecticides, seeds	9. **Scarcity of domestic fuel**
10. No medical facility, treatment expensive	10. Lack of earning members in the family
11. Too high a work load	11. Problems with sharecropping
12. No veterinary service for stock	12. Lack of drinking water during the dry season
13. Difficulty in accessing draught animals	13. Lack of opportunities of female education
14. BRAC not buying growing chicks	14. **Lack of training in small stock raising**
15. Lack of sanitary latrine, poor hygiene	
16. Joblessness of manual rickshaw pullers	
17. **Husband's negligence**and torture	

9

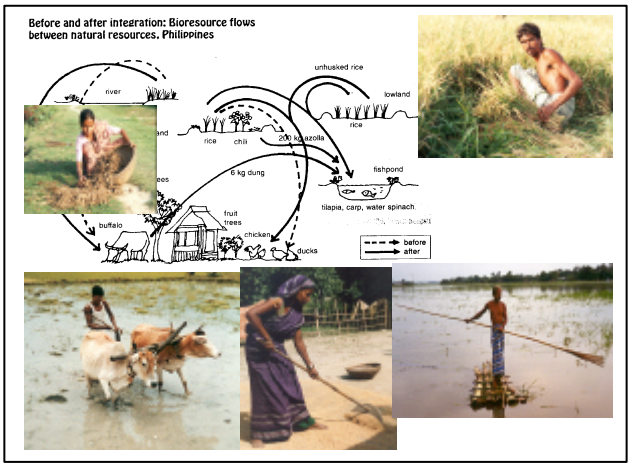


10

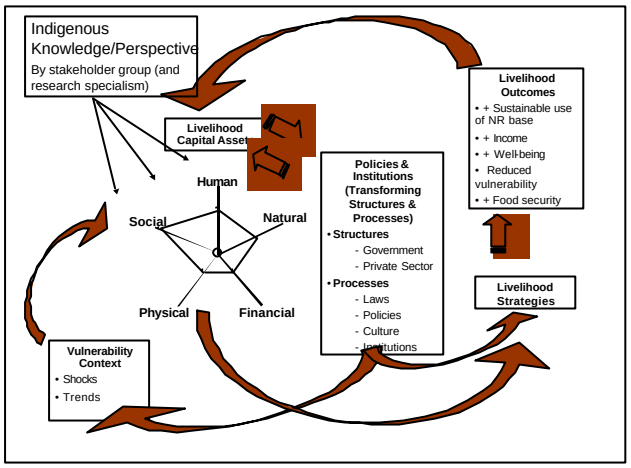
IK soil map of Charan *Beel* based on cadastral plots.



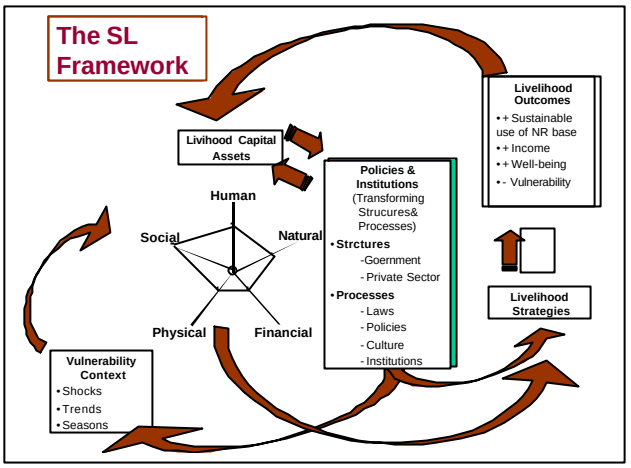
11



12



13



14

We need to incorporate people's own definition of desirable outcomes, and their perspectives and knowledge about the social and natural world

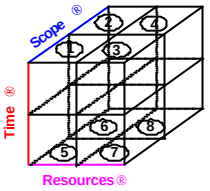
15

A decision framework : the IK cube

1. **What budget is available for the IK component?**
2. **What depth and breadth of inquiry is required for the IK component?**
3. **How much time is available to complete the IK component?**

- **Objectives / Scope** (of IK research)
- **Resources** (finances available)
- **Time** (for IK research component)

Quality
Quantity
Time
(QQT)



16

Conclusions

- To achieve poverty reduction, a demand focus is required
- The client group, and their needs and goals, need to be identified
- IK of value to NR research is much broader than ITK
- Clients have wide experience of the biophysical and socio-economic context in which they make their living
- Livelihoods are 'coupled' and NR are multifunctional. Interventions may have impacts on livelihoods beyond the client group
- There are different ways to integrate IK and NR research in the project cycle, but feedback and partnerships are essential

17

Conclusions

- IK can be cost effective and value for money, but may not be cheap or easy to aquire
- PRA/PLA tools assist the research process, but longer term involvement may be critical
- There can be philosophical and practical constraints to achieving integration in IDR
- Both qualitative and quantitative data need to be robust
- QQT considerations determine the scope of IK in NR research; trade-offs are likely.

18

9.3 Developing approaches to address gender specific needs in relation to access to technological change – enabling NR scientists to develop appropriate gender questions relevant to their technical areas of interest (R7039)

Christine Okali, ODG, University of East Anglia

ABSTRACT

The purpose of project R7039 was to develop a general approach for monitoring changing gender relations in the renewable natural resources (RNR) sector. This was seen as being the first step towards addressing output 7 of the Socio-Economic Methodologies component of the RNRRS, to develop approaches to address gender specific needs in relation to technological change.

Through a detailed literature review, ways of understanding processes of changing gender relations were identified and evaluated at the start of the project. Methods for analysing processes of changing gender relations were then developed and tested by collaborators in Zimbabwe and Tanzania using a conceptual framework and an accompanying narrative. Institutional issues around the approach and the required process of engagement by researchers in the monitoring activity were understood as a result of this experience. Guidelines for monitoring changing gender relations in the context of natural resource research and development programmes were subsequently developed as a result of wider testing by other organisations in other countries. Since the project ended, practicable approaches for monitoring changing gender relations have been made widely available.

The project outputs have contributed to the project goal of promoting ways of identifying and addressing gender issues in the design and delivery of agricultural research. Zimbabwe collaborators who were working in a range of different institutional settings developed their capacity and confidence to approach gender analysis. The approach has been institutionalised within the Southern Highlands Dairy Project in Tanzania and is in the process of being institutionalised within the national research service in Nepal. Project outputs, especially the framework and the guidelines, have been made widely available to agricultural researchers in Zimbabwe, Kenya, Nepal and Nigeria.

Christine Okali

PRESENTATION

Conceptual Framework for Analysing Changing Gender Relations in Natural Resource Research and Projects

Conceptual Understandings	Generic Questions	Implications for Methods
Dynamic Analysis: Gender relations are formed and constantly renegotiated and reconstructed by individuals and groups in direct confrontations or through every day events.	• What are the historical directions of change in gender relations? • What is the nature of local gender relations? • What aspects of local gender relations are currently relatively' accepted' and stable? • What aspects are currently highly contested, fluid or changing?	• Adopt a historical perspective • Focus on change • Develop local understandings through field analysis
Relational Analysis: The experiences and strategies of men and women and their negotiations around separate and joint interests, both within household and supra-household institutions, are integral to a gendered analysis.	• How do women and men maintain and renegotiate gender relations? • How are gender relations shaped by other social identities? • What is the nature of gender relations in different institutions? • How do women and men use these institutions to maintain and renegotiate gender relations?	• Integrate men into gender analysis • Include other social relationships in analysis • Include local institutions in analysis
Social Analysis: Cultural constructions of gender are pervasive but also highly specific and socially variable. Gender is an organising concept for all aspects of social reality but the particular gender meaning of an act cannot be read off from behaviour but depends on situational details.	• What are local values about gender roles, resource a] locations • and authority? • What are cultural perceptions of agricultural services and technologies? • How are these two related	• Probe the links between local values about gender relations and the roles, resources allocations and authority of women and men • Probe the links between perceptions of behaviour and the context in which it occurs
Strategising: Women and men strategise to optimise their separate and joint livelihoods and security, and junior and disadvantaged individuals resist and contest powerful individuals. Strategies may not reflect local cultural values about appropriate and acceptable behaviour.	• What are the shared and separate livelihood interests of women and men? • What strategies do women and men employ to advance their joint and separate livelihood interests?	• Be alert to joint and separate interests and strategies • Probe self-explanatory explanations
Bargaining: The relative bargaining power of women and men is determined by concerns about household survival, extra-household networks, economic variables and local understandings about legitimate acts. Bargaining processes draw on and redefine cultural meanings.	• What are the local understandings of the relative bargaining positions of women and men? • How do women and men use these understandings in their bargaining strategies? • How is this worked out at an individual level?	• Focus on the process of bargaining • Report on specific acts of bargaining
Valuing Outcomes: Women and men interpret and value the outcomes of bargaining processes and interventions with respect to their own needs and interests and their ongoing negotiations. Apparently similar outcomes may have different implications and valued outcomes may be unrelated to project objectives	• How do women and men strategise around interventions? • How do women and men experience and value outcomes?	Expect ambiguous and contradictory findings

9.4 Integrated research on natural resource management – experiences of different approaches to examining biophysical, social and economic interactions (R7304)

Peter Frost, University of Zimbabwe

ABSTRACT

Rural poverty seldom results from a single cause or even a cluster of closely related factors. More often it is the combination of a suite of social, economic and environmental components and processes operating at a range of scales. Initiatives aimed at alleviating poverty but which focus on isolated factors – e.g., policy failures, institutional weaknesses, inaccessibility of markets, gender imbalances in access to opportunities and decision-making, poor crop performance, pests, infertile soils, aridity, environmental degradation, management of common-pool resources, etc. – risk failure because other factors were not adequately addressed at the same time. We need to consider what approaches can be used to encompass relevant additional features within a common framework that will promote integration and understanding of their interactions and dynamics.

The tools needed for integration are not just those required to help us conceptualise all the many features affecting people's lives, but also ones that promote both coherent vision and cohesive action among diverse stakeholders, including researchers themselves. The Sustainable Rural Livelihoods concept, with its emphasis on people's capacities and assets and how these might be built up so that people can cope better with and recover from sudden adverse environmental, economic and social changes, is a start. It needs to be expanded, however, to encompass a more dynamic view of those processes affecting people's livelihoods, vulnerabilities and responses. For example, by considering the interactions among people's natural, financial, human, social, and physical assets, potential points of entry and possible interventions with amplifying effects might be identified.

In this paper I discuss a number of approaches to promoting interdisciplinary research in support of initiatives to improve people's livelihoods. These include structuring conceptual frameworks; constructing and using simulation models; and doing multivariate analyses to show structure and dynamics within complex data sets. In all cases, inter-disciplinarity has been advanced as much by the process of doing these things as by the outcomes. Problems remain, however. There is a natural scepticism within some disciplines of what appears to be an overly mechanistic approach to analysing and understanding human affairs. The number of elements that people want to see incorporated can be huge. As more disciplines and interests become involved, tensions inevitably emerge as viewpoints become more diverse. The process itself takes time and commitment, often with false starts and reversals. Most of all, there is the danger that means and ends get confused.

Despite these difficulties, there seems to be no useful alternative to taking an integrated view of natural resource management. The challenge is how best to encompass the added complexity without our focus and actions becoming dissipated. This may require strategic realignment rather than simple operational adjustments.

PRESENTATION

Integrated Research on Natural Resource Management:

Experiences of different approaches to examining biophysical, social and economic interactions

1

The Problem

- Poverty results from a combination of social, economic and environmental factors functioning at a range of scales (space, time and quality)
- Addressing this complexity in a piecemeal fashion is inherently prone to failure; current research is necessary but not sufficient
- An integrated approach to the use and management of natural resources is required

2

But...

- widening the boundaries of the problem
- incorporating more stakeholders, interests and relationships
- adding more components and processes
- considering multiple levels of social, economic and ecological organisation

...greatly increases complexity, lengthens the timeframes for change, and adds uncertainty

3

To handle this complexity we need...

- Appropriate conceptual frameworks that portray relationships and boundaries
- More genuine interdisciplinary research (in contrast to multidisciplinary studies)
- Processes that facilitate participation by and inputs from relevant stakeholders
- Applicable analytical tools
- To be able to project changes over time

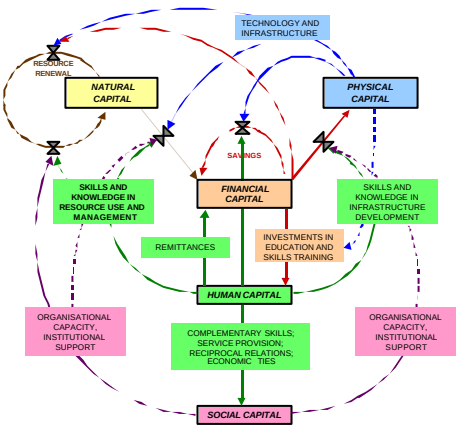
4

The Sustainable Rural Livelihoods initiative is one such framework

- It emphasises the importance of people's capacities and assets
- It focuses on how these might be built up so that people can cope better with and recover from sudden adverse environmental, economic and social changes.

But the links between, and dynamics of, these assets must be considered

5

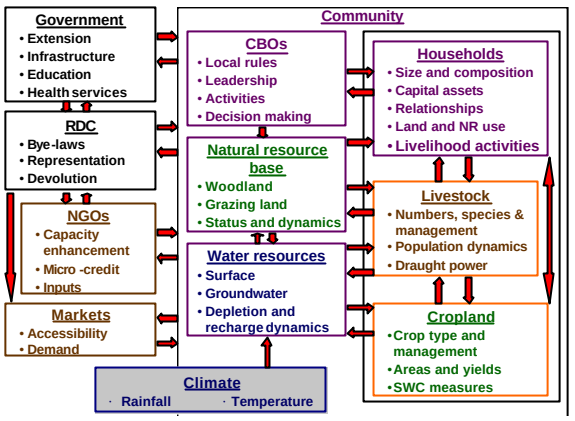


6

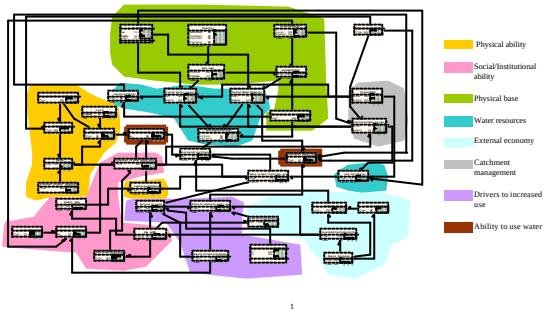
Within Project R7304 we have been trying various approaches to these problems:

- Constructing conceptual frameworks
- Baysian Belief Network modelling
- Building integrated dynamic simulation models (as much to benefit from the process as from the product)
- Using multivariate analysis to track contemporary change in diverse components
- Using multi-criteria decision analyses
- Participatory systems analysis (= SCDs)

7

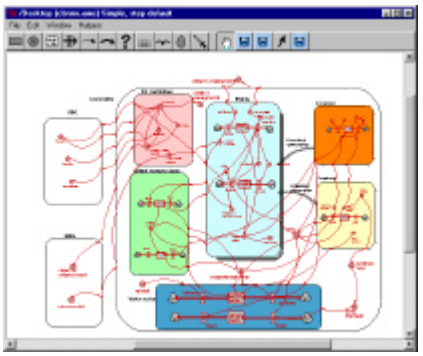


8



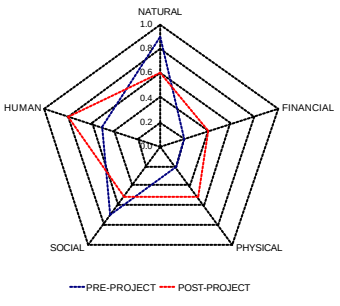
Bayesian Belief Network of likelihood of a catchment management intervention having a favourable impact on livelihoods

9



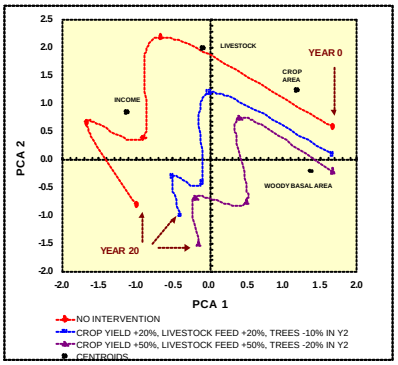
Incomplete (as yet) simulation model of a micro-catchment community, being developed using Simile

10



Changes in capital asset stocks could be represented on radar diagrams with the value of each asset being a normalised multivariate component score

11



Principal Components Analysis of time-series data of four community attributes under three scenarios

12

Multi-criteria analyses provide insights into the relative advantages of different options.

13

What have we learnt?

- Visual display of relationships among livelihood components illustrates the complexity involved
- Insights into our often limited understanding of these environment-livelihood systems
- Can explore scenarios of change beyond the life time of the project
- Different models and modelling initiatives provide complementary insights

14

New problems emerge

- More components; many more processes
- More viewpoints, less focus, more tension among researchers
- Time and commitment needed; false starts and reversals are common
- Means can become ends (wrongly so; models are tools)
- Scepticism about being able to represent the complexity of human affairs in such apparently mechanistic ways

15

Is a strategic realignment needed?

- Studies of selected natural resource use production-consumption systems (What are the priorities? Are there the necessary human and financial resources, and time?)
- Greater commitment to asking and answering interdisciplinary questions
- More focus on identifying and understanding livelihood constraints

16

Strategic realignment? (cont.)

- Co-location of complementary projects (but this narrows the field)
- Complementary projects at different but comparable sites (assuming such sites can be identified beforehand)
- Sequencing of projects (carts before horses)

17

9.5 Bridging knowledge gaps between soils research and dissemination: Challenges and applications of an interdisciplinary method for incorporating local knowledge into natural resources management research and extension (R7516)

Fergus Sinclair, SAFS University of Wales, Bangor

ABSTRACT

This presentation highlights the challenges of developing rigorous methods for acquiring local knowledge in the context of rural development and then illustrates their utility in a range of contexts.

A knowledge-based systems approach to the acquisition of agroecological knowledge was developed in the mid '90s in demand-led research funded largely by DFID's Forestry Research Programme (FRP) with contributions from bilateral DFID projects, the Rockefeller and Ford Foundations and Winrock International. The method was developed through collaboration between agricultural and forest research and development institutions in five countries (Nepal, Sri Lanka, Thailand, Tanzania and Kenya) and the University of Wales, Bangor and the University of Edinburgh. A multidisciplinary steering group comprising anthropologists, ecologists, development specialists and knowledge engineers was fundamental to the progress of the work. But, developing a truly interdisciplinary methodology involved brokering disagreement amongst disciplines, rather than arriving at consensus, and the resultant methods, although of clear utility, do not fit comfortably within any of the contributing disciplines.

The most fundamental and controversial aspects of the methodology are to:

- conceptualise knowledge as being separate from the people who know it,
- distinguish pragmatic agroecological knowledge from the cultural milieu within which it is embedded, and
- disaggregate knowledge into it's smallest meaningful units to effect flexible storage and access.

This has been accomplished by turning expert systems methodology on its head. Rather than seeing one or two key individuals as experts, we view the large, dispersed population of farmers as experts and attempt to understand their shared knowledge. This has proved to have profound impact upon research and extension in terms of understanding what farmers currently do and know, changing perceptions of what research is relevant to their needs and improving communication.

These methods have now been applied in a range of new contexts including participatory development of soil and water conservation in Nepal and Ghana and improving the productivity and environmental impact of multi-strata rubber, cocoa and silvo-pastoral systems in Indonesia, Ghana, Cameroon and Colombia. The methods are being extended through FRP funding to include explicit consideration of farmer decision making and through the DFID's Livestock Production Programme funding to develop decision support tools that incorporate both local and biological knowledge of tree fodder evaluation. Funding from DFID's Plant Sciences Programme and CGIAR System wide initiatives, in conjunction with local resources, have enabled application of the methods to participatory crop improvement in maize-millet and cassava-maize intercropping systems in Nepal and Colombia. The methods are also being used as a basis for bridging gaps between soil fertility research and dissemination in Ghana in an ongoing NRSP project.

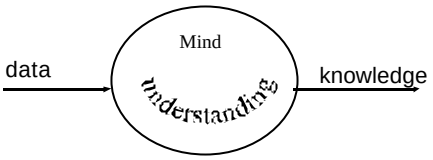
Progress in application of the methods now requires institutional investment in knowledge-based approaches. New work, in conjunction with local communities and institutions, and ICRAF in southeast Asia, builds on earlier work to combine local knowledge, modelling approaches and locally applicable environmental measurement and monitoring techniques to facilitate empowerment of local hill farming communities in negotiating land use rights and regulations

PRESENTATION

Challenges in developing and applying an interdisciplinary method for incorporating local knowledge in planning research and extension

1

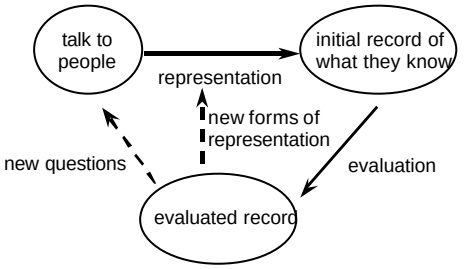
Information



A view of knowledge as human interpretation that can be articulated

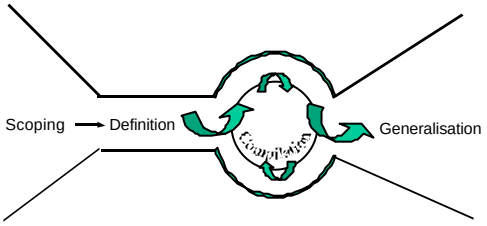
2

Iterative development of representation using artificial intelligence techniques



3

Acquisition strategy



4

Disaggregation

Break knowledge down into smallest meaningful units.

This maximises the flexibility with which these items of knowledge can be used.

5

The unitary statement

- Expresses a single assertion

1. tree shade causes humidity to increase

2. an increase in humidity causes an increase in fungal disease

- Can be accommodated by a restricted syntax

6

Syntax: example

an increase in the size of tree leaves causes an increase in tapkan drop size

att_value(part(tree,leaf),size,increase) causes2way att_value(tapkan_drop, size,increase)

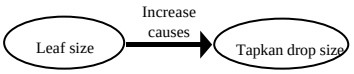
7

Context

- knowledge base domain
- conditions
- source
- hierarchies and definitions of terms

8

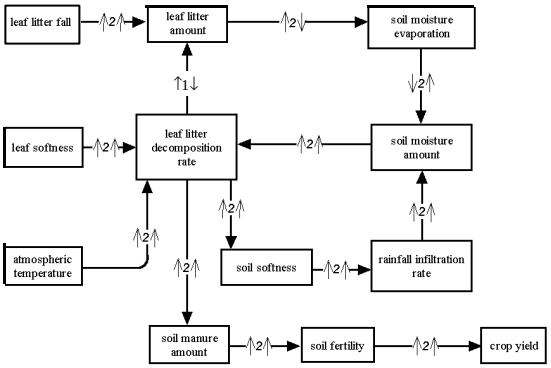
Diagrams



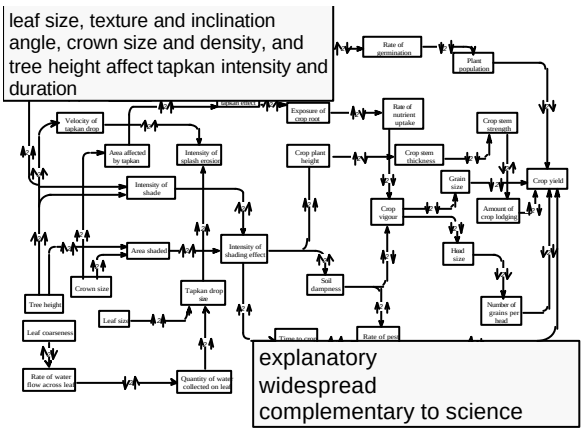
att_value(leaf,size,increase) causes att_value(tapkan_drop, size, increase).

- Show relationships amongst statements
- Direct correspondence with formal syntax

9



10

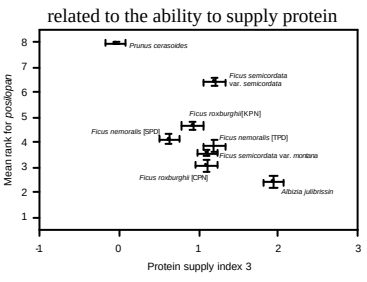


11

Fodder value

- *posilopan* - promotes milk and fat production, rapid liveweight gain and health

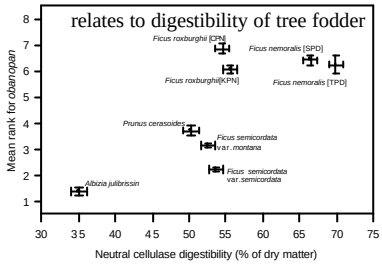
related to the ability to supply protein



12

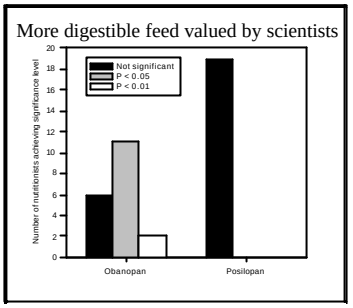
Fodder value

- posilopan
- obanopan highly palatable, eaten voraciously, causes constipation if fed in excess



13

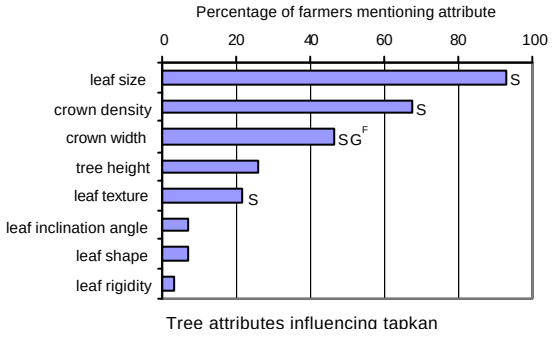
Correspondence between fodder rankings by farmers & animal scientists



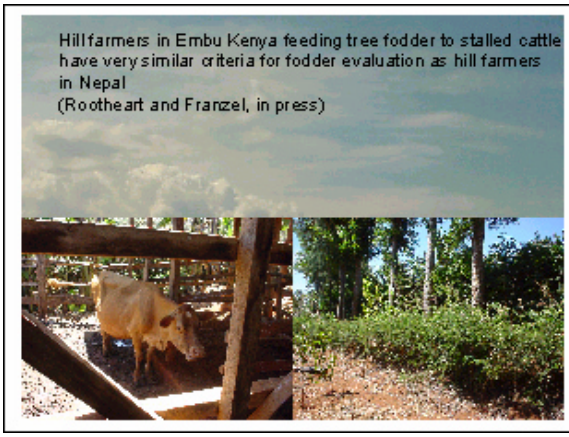
but less digestible feed valued by farmers

14

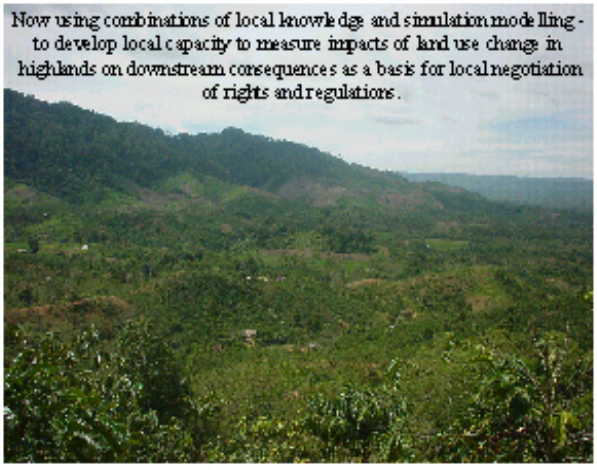
Distribution of knowledge across the eastern mid-hills: 4 contrasting sites; gender; wealth



15



16



17

Damar agroforests negotiation:

- local people have negotiated with government a change in regulations that recognises the agroforests as legitimate use of forest

-a shift from the forest authority destroying settlements with elephants to sustainable local management

- this required demonstrating the sustainability as the basis for the negotiation.

18

Sophisticated solutions and support

People and resources at the forest margin

Exploring long term consequences of short range decisions

19

- Since farmers have sophisticated understanding of their environment and natural resource management …
- the support they need is often sophisticated
  - decision support for complex, heterogenous systems (FLORES - simulation modelling)
  - fundamental rather than adaptive research

20

Work session 7: Knowledge flows

10.1 Study of the reach, use and impact of NRSP's communication methods and media products

Pat Norrish, AERDD, University of Reading

ABSTRACT

The need for programmes and projects to have communication strategies for effectively disseminating the outputs of NR research is gaining recognition. Recent guidelines (Norrish et al 2000) suggest that a communication strategy should be planned from project initiation and continue throughout the project cycle and that dissemination should be active and demand led rather than passive and supply driven.

This and other research suggests that effective dissemination is dependent on a number of factors including: the extent to which a project is demand led and beneficiaries are involved in the research; good collaborative working with stakeholders and beneficiaries (e.g. intermediate organisations, policy makers, bi-lateral projects, commercial organisations) throughout the project; a good understanding of stakeholder and beneficiary communication context and needs; the extent to which an iterative process for the development of materials, involving both end and intermediate users in pre-testing and evaluating, has been put in place; mutual understanding amongst stakeholders of their respective roles and responsibilities in relation to promotion and uptake activities.

The eight projects in five countries (Bangladesh, Bolivia, Ghana, India, Zimbabwe that have been selected are aimed at the poorest sections of society either directly or through policy. They cover both methods/processes for reaching the poor or enabling decision making, and technologies; they offer a range of target groups (policy makers, farmers, extension and NGOs, research organisations); and a range of media products and communication activities for review from street plays and folk songs in India to the use of GIS and the development of CDRoms which can be down loaded from web sites.

The methodology for the project was developed by the UK team in consultation with the local research team in each country. It involved a review of project documents held by NRSP with the aim of providing a digest for the overseas teams. A set of checklists was then developed for use in semi-structured interviews with a range of stakeholders. The country teams made decisions on who to interview, when and where and also the extent to which they could use the checklists or adapt them to particular circumstances. Guidance for the final reporting was provided from the UK, but teams were free to use their own format providing an agreed list of contents was included.

Researchers in the five countries started the review process at the start of October 2000 and are currently writing up their findings. The UK team has completed interviews with UK based project managers and collaborators. We are now at the point where we have data to read and analyse but nothing to report beyond that. However, by the date of the workshop we will have completed an initial analysis of data and will have something to report.

Findings

- Impact of communication activities
- Impact of media products
- Communication activities and raised expectations
- Crucial project success factors sidelined
- Links: organisational - individual
- Institutional capacity

1

Findings contd.

- Material often inappropriate for farmers (especially women)
- Farmers not involved in generation of materials
- Farmers communication environment
- Language issues
- Short production runs
- Limited distribution

2

Questions

1. Who should do what at project inception and implementation phases?
2. Who is responsible, and for what, after the project leaves/is completed and to whom are they accountable?
3. Where is the money to come from?

3

10.2 Diagrams, models and communicating results

Robert Muetzfeldt, Institute of Ecology & Resource Management, University of Edinburgh

ABSTRACT

Effective communication is essential for the effectiveness of research relating to the alleviation of poverty, whether this is between research and local person, researcher and researcher, or researcher and those concerned with policy. Currently, we rely heavily on traditional prose-based communication, supplemented perhaps by the occasional table or figure. However, this approach fails when we are dealing with complex, interacting systems. We desperately need to start using some form of notation that can lay out for the complex systems that underlie poverty:

- The components of the system;
- The processes that operate within that system;
- The key attributes of the components; and
- The linkages between components, their attributes and the processes.

This requires some degree of formalisation of the knowledge we have, whether indigenous or obtained through research. Without that, we will fail in our attempt to understand systems as systems, to foster an interdisciplinary approach, or to come to common agreement on which parts of the system are central to addressing poverty.

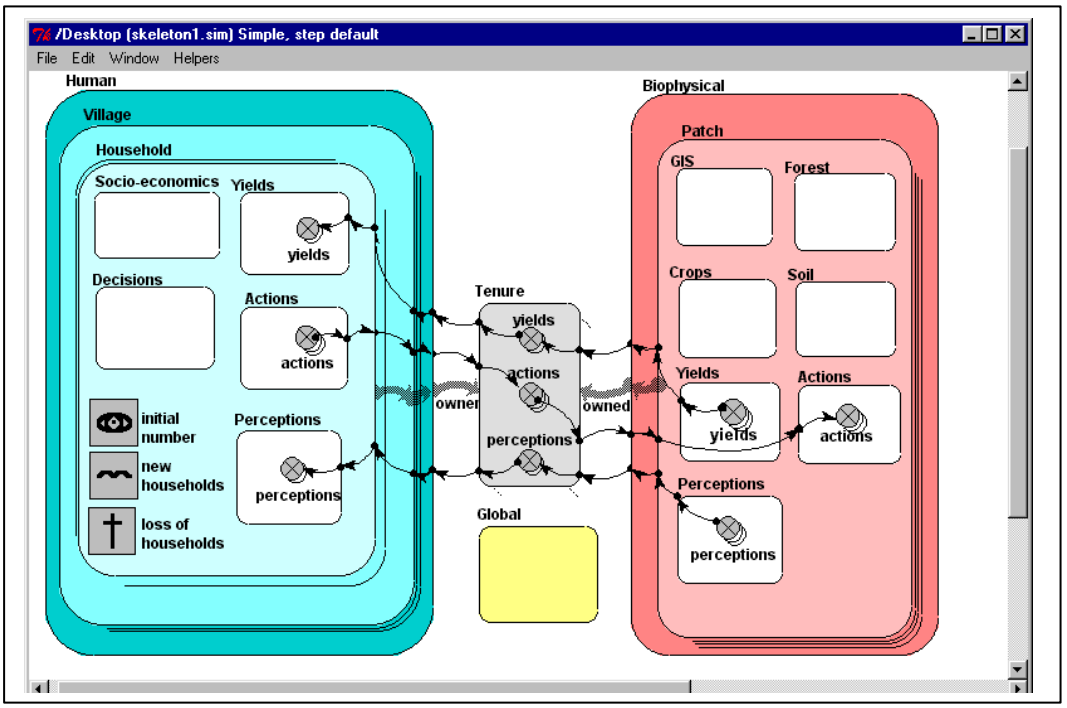
Fortunately, there are forms of diagrammatic notation that can go along way towards satisfying these requirements. For example, the Simile visual modelling software has diagrammatic elements for sub-model, flows, variables and influences that correspond directly to those listed above, It has been successfully used in the DFID(FRP)-funded FLORES project, where it has been particularly effective in encouraging researchers from many different disciplines - from crop science to anthropology - to map out their understanding in a common language. At the finest level of detail, the diagrams can show assumptions about the stocks and flows that apply within a household. At the macro scale, the diagrams can show the overall structure of the system under study: the components and the relations between them. The diagrams can be the first step in formulating a mathematical model, but that is not necessary: the diagram alone serves a useful purpose even if no runnable models are constructed.

Moreover, the information content of the diagrams can be represented in a form that computers can process. This makes it possible to interrogate bodies of knowledge, link knowledge coming from different sources, and to present the knowledge in forms that suit different audiences.

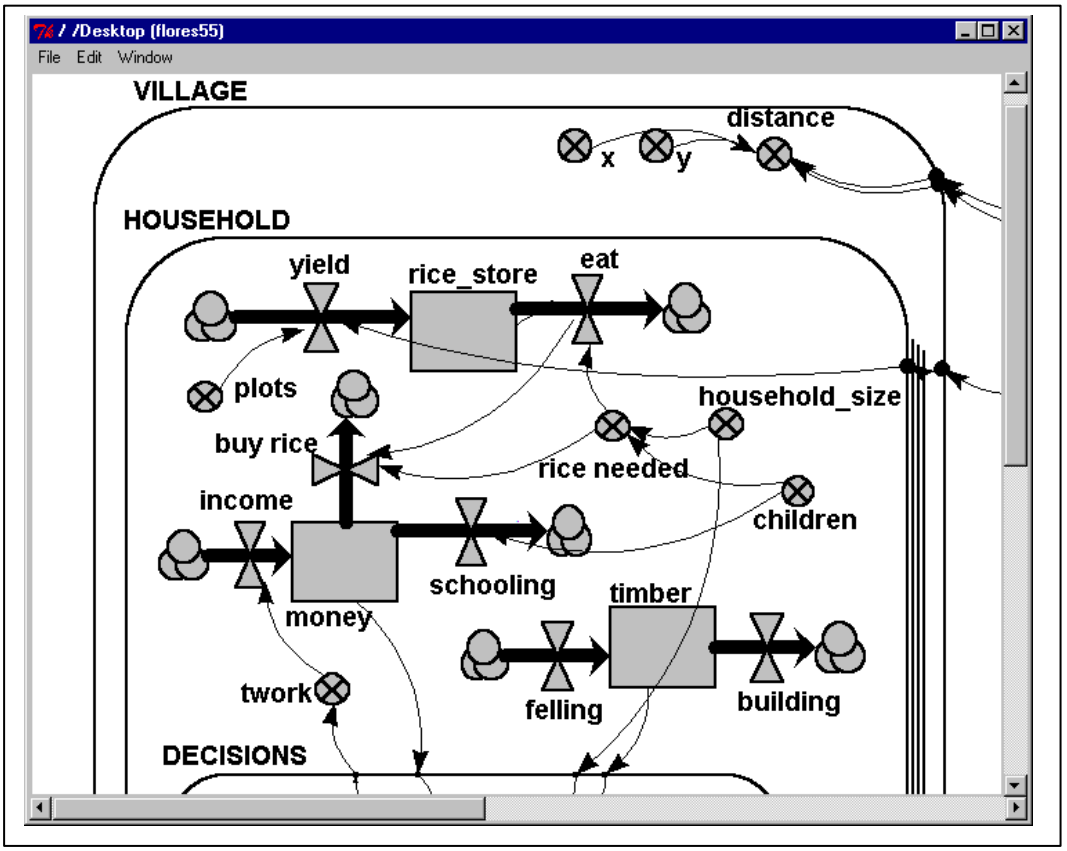
It is my contention that, without an investment in the infrastructure for research- tools and methodologies - we will fail to achieve the full benefits of research. This requires investment, since there is still much work that needs to be done to evaluate candidate approaches, to adapt the tools we have for use in a development-research context, and to develop the institutional systems required for incorporating new approaches into programmes such as NRSP.

Links:Simile: http://helios.bto.ed.ac.uk/ierm/ame (AME being the old name for Simile)

FLORES: http://helios. bto.ed.ac.uk/ierm/flores


/Desktop (skeleton1.sim) Simple, step default
File Edit Window Helpers
Human
Village
Household
Socio-economics
Yields
yields
Decisions
Actions
actions
initial number
new households
loss of households
Perceptions
perceptions
Tenure
yields
actions
perceptions
owner
owned
Global
Biophysical
Patch
GIS
Forest
Crops
Soil
Yields
yields
Actions
actions
Perceptions
perceptions

1


/ /Desktop (flores55)
File Edit Window
VILLAGE
distance
x
y
HOUSEHOLD
yield
rice_store
eat
plots
household_size
buy rice
rice needed
income
children
schooling
timber
money
twork
felling
building
DECISIONS

2

10.3 Biometric support for NRSP projects

Roger Stern, SSC, University of Reading

ABSTRACT

This meeting has emphasised the wide range of techniques that are being used in DFID research projects. The Statistical Services Centre (SSC) produces a set of "good-practice guidelines", as part of our pro-active support for DFID projects. These are "bite-size" and cover issues related to the management and archiving of research data, as well as the design and analysis of a research study. They are available from our web site, www.rdg.ac.uk/ssc in a variety of formats and we can send copies, or a CD, to collaborators who do not have easy access to the web.

One issue that was raised repeatedly during the meeting was the importance of developing well-defined sampling schemes as part of the research project. Project presentations emphasised that the poorest are generally not the first to come forward if volunteers are requested. Hence if projects are to have a poverty focus, then the absence of a solid sampling scheme may produce a set of respondents that under samples or omits this key group.

Our separate guidelines on surveys and sampling, emphasise that the sampling for standard sample surveys.

Project staff who need statistical support will know that the SSC is able to offer a free day of support to projects under its current contract with DFID. Our general view is that statistical support is best provided locally. We have worked in most of the countries that have provided the case studies discussed in this meeting and would particularly encourage team leaders to try to include a local statistician, where possible, in the project team. They may not, at the start, be up-to-date on the more modern techniques for data collection, but both they and the research projects stand to gain if they can be included as full team members, and not just be expected to answer technical questions on sampling or analysis.

Evening of day 1 presentations

11.1 Applying a poverty focus to livelihoods research: Experiences from the Centre for Development Studies, University of Wales Swansea

Mary Ann Brocklesby and Eleanor Fisher

Introduction

In this presentation we take up an objective established by the NRSP workshop, namely to identify ways forward that will assist the design of poverty-focused natural resources management research. We do this by focusing on a sustainable livelihoods (SL) approach, such as that put forward by the Department for International Development (DFID), which provides a framework for poverty reduction. We're making the assumption that DFID's SL Approach is relevant in this context - given that it is closely associated with the natural resources sections of DFID - and also that the reader has a basic level of familiarity with it.

Issues raised and illustrative examples come from our involvement in advisory work conducted in the Centre for Development Studies (CDS) based on association with DFID's Sustainable Livelihoods Resource Group. Our experience to date - in a variety of locations and disciplinary spheres - provides a basis for reflecting on issues and dilemmas encountered in trying to utilise an SL approach, either on our own or with partners who draw on SL ideas to focus on poverty.

We want to explore two areas:

- First, what is a 'poverty focus' and what does this imply for NR research?
- Second, lesson learning from CDS's involvement in SL / poverty related development work.

What is meant by poverty in the DFID SL Approach?

Section 4.1 of these Proceedings considers how to analyse poverty as a means to understand its links with the management of natural resources, we don't want to be repetitive but it will help to have a starting point.

Sustainable livelihoods approaches have been promoted by donors and development organisations in recent years (DFID, UNDP, FAO, Oxfam, etc.). They provide a framework for analysing poverty issues and identifying means for development intervention to reduce poverty. We can focus on DFID's SL Approach as an example.

The way that the SL Approach conceptualises poverty is in keeping with recent 'process-oriented' ways of understanding poverty issues, which have emerged in response to the limitations of conventional measurements of poverty. To briefly typify, these conventional measurements define poverty in terms of basic needs and deprivation resulting from inadequate command over commodities. Through quantitative socio-economic and statistical measurement a poverty line can be identified and people slotted into fixed categories – the very poor, poor, not so poor, etc.).

This is of value for certain purposes, it provides an indication of overall incidence of income poverty and trends over time and may be useful in raising awareness, generating political momentum and monitoring the impact of policy. However, as is implicitly and explicitly recognised by DFID in promoting the SL Approach, this way of capturing poverty causes a number of problems:

- It does not provide a sufficient basis for understanding causes and processes;
- It is defined by outsiders and neglects people's own definitions of poverty;
- It implies that the poor are passive beneficiaries of external interventions, ignoring strategies for coping and securing well-being;
- It carries only limited capacity to illuminate the nature of poverty in particular within and between communities, households or social groups, or to explain its continuation, reduction or deepening.

In other words it helps tell who the poor are and how many but not why people are poor and how they experience poverty. It is the why and the how which underpin - or provide the fundamental questions - of process-oriented poverty focused research. 'Sustainable livelihoods' is one of a number

of approaches that seek to overcome these shortcomings. The approach is predicated on an asset/vulnerability model of poverty which:

- Encompasses poverty as a phenomenon with many different dimensions that can only be captured through context-specific understandings of people's lives and the environments in which they live. *This is critical in the refining and directing of policies with the potential to have an impact on poverty* – a point we return to later. This is a dynamic view of poverty as a process – not as a fixed state that is imposed on a group of people: the poor.
- Is concerned with the ability of individuals, households and communities to manage change that affects their lives. A critical premise is that the poor are not passive and that they have strengths (as opposed to needs) that can be mobilised in development planning. It therefore implicitly embraces *participation as a right*. (Reference to participation as a right is deliberate, being distinct from participation as a methodology).
- By providing a means to systematically analyse linkages between the causes, nature and consequences of poverty, the SL is a tool that can help us harness inter-disciplinarity in order to improve effectiveness of poverty-focused natural resource management research.

We do not have the time to go into a detailed analysis of how the SL framework conceptualises poverty but the main issue we want to raise is that the SL Approach does not explicitly state how poverty should be addressed; indeed the SL Framework isn't necessarily poverty-focused. This is surprising and becomes most apparent when one is working with others who do not share the same conceptual frameworks on poverty as those who are familiar to social development consultants who regularly work with DFID. When those using the SL approach are cognisant of the underlying concepts they can adjust working methods to take this into account, but it becomes a different ball game when institutions and individual researchers from very different backgrounds take up the approach and work with it.

Assumptions regarding a conceptualisation of poverty in the SL Approach

Here we want to elaborate on the point that the SL Approach is not necessarily poverty-focused by providing some examples. These examples have been chosen on the basis of what they can highlight in relation to the SL Approach and poverty issues; they are not based on natural resource management research or projects. Each is based on work conducted for DFID, which we understand to be pertinent in the context of the NRSP programme. Also, we believe these issues are equally relevant for NR and non-NR focused research. In this respect, there are certain key questions one can ask whatever the nature of the research. These are:

- How is poverty conceptualised?
- What bearing does this have on research?
- How is a poverty focus integrated into existing research frameworks and modalities?

Poverty Impact Assessment Study (CGIAR)

In March - April 2000 members of CDS helped to design a poverty impact assessment for agricultural research as part of a study for the Consultative Group on International Agricultural Research (Brocklesby, Fisher, Holland, 2000). Our involvement was the provision of social development support in the redesign of an integrated social and economic analysis as part of a funding bid to DFID made through the International Food Policy Research Institute in Washington.

When we were drawn into this work, DFID wanted to fund the project but early versions of the research design were considered problematic. Donor concerns hinged on a lack of clarity with regard to: how the poor would be consulted; how poverty was to be understood, and within this what mechanisms would be employed to systematically integrate social and economic perspectives during case study research. A key issue was that the concept of poverty was not clearly defined and the original research embraced an income/consumption concept of poverty leading to the privileging of a single-issue quantitative methodology.

We came in at the point when the SL framework was being employed to answer to these criticisms in order to give the study a more pertinent poverty focus. We don't have time to elaborate on our involvement but some key issues came out of the process, which are of pertinence to NR research involving different partners:

On the constructive side – acceptance of the SL approach necessarily led to a reorientation of the research focus away from a linear specific input-output approach to analysing poverty dynamics, with its attendant focus on single-strand indicators such as nutrition or household income. Instead the focus was broadened to encompass livelihood dynamics and their relationship to a range of internal and external process issues, including more political aspects of the institutional and policy environment. Why did it do that? Because the approach inevitably led to the emergence of a different set of research questions focused not on what is the impact on poverty in a general sense but what are the impacts on livelihood patterns and how has this affected different social groups in their efforts to avoid poverty.

However, trying to introduce the SL approach for researchers to follow also opened up – what can only be described as - a can of worms. The SL wasn't perceived to be a neutral approach, it was seen as coming from DFID, and the way it was or wasn't taken up and people's reactions, reflected the messy business of negotiating change within the CGIAR system and in the pattern of operating between two large organisations.

The key issue this raised was that DFID assumes that all key actors will have a clear understanding of the conceptualisation of poverty on which the SLA is based. This work demonstrated that this was not the case. It underlined the fact that time needs to be spent clarifying an asset-vulnerability conception of poverty and, critically, the implications this conception will have for working practices.

This is very important because the tools and methods employed for research are different depending on how poverty is understood. Another organisation may have very consistent and coherent methods for analysing poverty, which 'clash' with the SLF; this should not be confused with a limitation on the part of the researchers concerned.

Engineering Knowledge and Research Programme

In the second example, CDS was brought in to support a similar process to the one you are undertaking. The Infrastructure and urban development Division (IUDD) of DFID began in 1998 to review the ways in which poverty issues were being addressed in its Knowledge and Research (KAR) programme. CDS were specifically asked to rewrite the guidelines and provide a more poverty-orientated assessment procedures for the selection process. A secondary concern of the KAR was to encourage research and analysis around the sustainable livelihoods agenda of DFID.

We choose to do this by developing a generic tool we called "the poverty matrix". The poverty matrix amalgamated the SL approach with DFID's poverty markers (PAM) to provide a comprehensive analysis of: the conceptual overview, the research approach, research implementation and the critical cross-cutting issues of gender, environment and sustainability. Thus it provides a way of thinking through the implications of a poverty focus on research from conception to dissemination. It was used initially for assessing research but also taken up to plan research. This was useful in the context of engineering research as almost to a man (and given the sex bias of much of the research this is not a slip of the tongue)- did not think through from conceptualisation to implementation what a poverty focus would entail.

Moreover the conception of poverty per se was extremely weak, partly because demanding the focus be placed on poor people did not engender the concomitant methodology to support it. Indeed initially it was hard to get across that there is a difference between being aware of poverty and targeting research in order to have a demonstrable effect on poverty reduction. For example, much research made assertions about impact and outcomes of the work on poverty, which common sense told couldn't be true. Firstly, because of the inevitable time lag between research being made available and being taken up in a meaningful way by a range of actors. Secondly, and quite often overlooked, there are the conditioning factors (such as institutional barriers or inappropriate policies) which don't allow the poor to gain access to the fruits of the research

Key Issues

One aspect that emerged very clearly from our involvement in KAR was that despite intentions inter-disciplinary research is very difficult to do. In engineering social scientists were continually trying to get policy space amongst engineers. Thus whatever focus taken in theory, in practice the leading discipline tended to dominate. There was also a degree of disciplinary defensiveness once the importance of interdisciplinary teams to poverty focused research was acknowledged. As we said earlier it is not easy to give disciplinary ground. It requires time, commitment and most importantly an analytical framework, which plays to the strengths of the different disciplines involved.

From our work with Engineering we identified several key characteristics informing a poverty focus to research - this we laid out in the Poverty Matrix. In brief a poverty focus requires:

- a clear conception of poverty;
- a clear understanding of context;
- combined methods and data qualitative and quantitative (which may or may not include participatory methods);
- research partners in the regional area who are not junior, and have status within the project;
- attention paid to the cross cutting issues of gender, environment and sustainability

Moreover a poverty focused inevitably means that one has to look at diversity. It is not merely a question of having a checklist (gender, age, etc.) rather there is a need to socially dis-aggregate data within an understanding of the context where research is being carried out (this leads into issues of risk and vulnerability):

Finally, policy makers don't want generalisations at the universal level – the emphasis is more on identifying and accounting for differences - be it in spatial and/or social terms. In this sense there is a need to support research which seeks to incorporate complexity and diversity into policy debates and processes.

Social Assessments in Public Sector Reform in Ghana

This leads me into a third example of advisory work being undertaken in CDS, which reinforces the point about the training of researchers being critical for capacity to adopt an SL focus for poverty relevant research. This is an issue which we will all be familiar with but it must be re-emphasised because the SL Approach does demand high levels of expertise.

Members of CDS have been drawn on to provide social development inputs for DFID to the National Institutional Renewal Programme: Subvented Agencies Reform Project in Ghana. Part of these inputs has involved carrying out pilot social assessments in two subvented agencies undergoing a process of reform. Fisher played a key role in co-ordinating these pilot social assessments.

Initially we thought that the SL framework would be an extremely valuable means to gain a rounded understanding of how people and their livelihoods would be affected, particularly by redundancy but also by changing access to fringe benefits (health care, etc.) making poorer people more vulnerable. Perhaps inevitably, difficulties were encountered in terms of the skills and training of local Ghanaian researchers in relation to a rounded understanding of vulnerability and poverty as a dynamic process. In Ghana social research training tends to polarise around skills learned in highly traditional social science departments in Ghanaian universities, on the one hand, and participatory methods, generally learned through involvement with NGOs, on the other. Potential researchers had skills in the spheres of quantitative and of participatory social research, but there was a gap when it came to the capacity to provide a very qualitative understanding of vulnerability.

For the poverty components of a sustainable livelihoods analysis to be carried out effectively, one has to highlight the importance of good skills in qualitative social analysis. There is a common confusion that participatory and qualitative methods are one and the same. This is not the case; while participatory methods are contextual and yield qualitative data, it does not follow that all qualitative

data is generated through participation. This is an important distinction, a decision to use or reject particular participatory methods has to be made separately from decisions concerning the type of data (qualitative/quantitative) on which poverty analyses, monitoring and evaluation are to be based. These like quantitative methods are selected because of appropriateness and relevance to the overall research context.

The important point is that different, but complementary, quantitative and qualitative forms of data are needed to address the wide range of issues that enter into a comprehensive poverty analysis. The challenge is to achieve a trade-off between measurability – which requires standardisation – and local complexity.

This takes us to another point: the SL approach is predicated upon interdisciplinary team-work. We need not elaborate on how important this is nor how difficult it is to achieve; it is something that you all will be familiar with. But the point we want to make is:

> If poverty focus is paramount it requires you to step back from your discipline and the research question and to *understand the poverty context first* then to re-think questions and research methodologies. An understanding of the poverty context may mean that your questions and methodologies have to change – this is by no means easy to do because we all like to 'hang onto' our particular area of specialism and skills, without asking too many fundamental questions!

Health and Poverty Analysis

Another piece of research-oriented advisory work conducted in CDS was a background paper for DFID on health and poverty (Fisher, Holland, James, 2000). In drafting this paper and holding discussions with representatives of WHO and DFID it became very apparent that health experts wanted to address the issue of needing a poverty focus but didn't want to reflect on what this might mean for health research practice. In particular changes to the questions which needed to be asked. Why should this be? Because the focus has shifted and a different lens is needed to provide clarity. And this requires that the actors concerned accept that this lens is needed and may in itself question accepted orthodoxies. It's a simple point but its not easy, we all get attached to our way of working and looking at the world.

One has to emphasise that just applying the SL framework to research won't necessarily lead you to a poverty-focus. Looking through the abstracts - assumptions, methodologies, disciplines - this seems to be quite a relevant issue in the context of this workshop and one that we will turn back to in a minute when considering what is entailed by a poverty focus.

Concluding Remarks

Finally, two issues that emerge from the background reading for this workshop:

ENTRY POINTS FOR RESEARCH AND INTERVENTIONS

In the concept note on natural resources research and poverty issues (4.1) there is a statement about new entry points now being sought in place of traditional technology promotion channels. What is clear with poverty focused approaches is that *who determines the entry point is critical to the whole approach.* Why is this:

- First beginning with understanding the poverty focus helps identify the main barriers/constraints to poverty elimination at micro – meso and macro level. This in turn generates both general and specific entry points. We would point out that this is not necessarily the task of an individual research team or project.
- Second, and related to the first is that the onus shifts away from northern research teams and onto southern research centres, governments and at the highest macro level international policy bodies or research networks to identify realistic and appropriate entry points for poverty focused research.

One should remember at this point the role of secondary material for research with a poverty focus because it often appears to be forgotten in proposals: if there is to be a poverty focus then must have a good understanding of the context – nationally, regional and locally.

REPLICABILITY

What does replicability this mean? Do need to differentiate between process and product. Poverty focused research is concerned with both. Relating back to the conference paper and the assertion that policy makers want to be able to replicate and scale up one does need to add the caveat that policy makers want solutions that have the potential to work in a range of situations. The added value of poverty focused research – if done well – is that it can highlight specifics and suggest adaptations to diverse circumstances spatially and socially. For example, a modification to planting material could be developed aimed at small-holder or home plot farmers in Sub-Saharan Africa while at the same time identifying specific adaptations in different locations and environment in relation to livelihood dynamics. The emphasis here is on optimising the potential to improve livelihood options among the poor in a range of situations.

References

Fisher, E., Holland, J., & James, S. B. (UWS) Becoming Poverty Focused: Implications for Health Actors. Working paper prepared for the Department of International Development (IHSD). Forthcoming in *Partnership in Health and Poverty* volume and issue number not known (2001).

Brocklesby, M.A. Fisher, E. Holland, J.D. Using Sustainable Livelihood Approaches in Poverty Impact Assessments Lessons Learnt From Designing CGIAR Impact of Agricultural Research on Poverty Reduction. DFID Working Paper 2000.

Brocklesby, M.A. & Hinshelwood, E Mainstreaming A Poverty Focus in Engineering Research: A review of the IUDD KAR 1999/2000 Selection Procedure. Document prepared for IUDD DFID May 2000

11.2 Forests and poverty

Gill Shepherd

FORESTS AND POVERTY

Gill Shepherd, ODI
29th November 2000

1

Why consider forests when thinking about poverty?

- Poverty in the developing world, (especially in sub-Saharan Africa and S. Asia) is mainly a rural phenomenon.
- 60-70% of people live in rural areas
- agriculture is still the most important economic activity in most of these countries
- the rural poor are always poorer than the urban poor
- Off-farm natural resources - especially forests - form a key part of sustainable livelihoods for all farmers, and an essential supplement to agriculture.

2

Some Definitions

- Poverty often measured against income or consumption criteria: useful for grasping the **extent** of poverty nationally, and for international comparison.
- 'basic needs' assessments - non-monetary
- 'basic capabilities' combines basic needs plus social criteria - social inclusion/exclusion
- 'basic capabilities' perspective has been developed by DFID into 'Sustainable Livelihoods'

3

Sustainable Livelihoods

- *'A livelihood comprises the capabilities, assets and activities required for a means of living. It is sustain-able when it can cope with and recover from stresses and shocks and maintain or enhance capabilities and assets, yet not undermine the natural resource base'*
- The concept is useful because it:
- Cincludes both social and environmental sustainability
- Cstarts with an analysis of capabilities, rather than needs
- CIn the case of our focus - forests - it forces us to weigh the components of livelihoods carefully, to see where forests fit in.

4

The contribution of forests to livelihoods

- There are four key areas in which forests contribute:
- 1 Forests commonly contribute to meeting food and other basic needs
- 2 are a source of inputs into the agricultural system
- 3 help households control exposure to risk of various kinds
- 4 generate income

5

1. Forest foods

- by complementing the carbohydrate and calories that farmers can grow for themselves
- by adding variety and increasing palatability
- by providing other dietarily essential nutrients: vitamins, minerals and protein
- by providing medicines which overlap with forest foods and save the purchase of alternatives

6

2. Inputs to the agricultural system

- forest is often managed as a component of wider livelihood strategies with which it is in symbiosis
- in conjunction with livestock herding where tree-browse is essential for animals
- through supplying nutrients - in fallowing systems, or via direct transfers of forest nutrients to the farm via animal manure
- where upland forests and watersheds have to be managed to protect water and agriculture lower down

7

3. Controlling exposure to risk

- Many agricultural communities suffer from seasonal food shortages, when stored food supplies have dwindled and new crops are not yet mature
- Forests support communities more extensively in years when normal crops fail or bear poorly for some reason
- Poorer households are more dependent on forests in both normal and lean times than wealthier households, even in the same community

8

4.Incomes from the forest

- The household importance of forest incomes is often more in their timing, than in their magnitude
- Wealthier households may be the heaviest users
- But the poor usually derive a far greater share of their overall needs from forest products and activities - 30-80% in some areas, at some moments of the year
- Easy access and low entry thresholds, enable women to gain incomes from forest product-gathering .

9

Poverty and environmentally sustainable forest management

- The great dependence on forest resources of many very poor people is only gradually becoming clear.
- It is almost impossible for governments or donors to provide poor rural people with equivalent benefits
- For the building of sustainable livelihoods through forests management, management must be:
  - flexible
  - able to access up-to-date information about shifting demands on forest use from season to season and year to year.
  - Such flexibility is best managed at the local level.

10

Donor attempts to harmonize poverty and forest conservation

- Two types of donor initiative have worked on these issues - each based loosely on the knowledge that independent forms of forest management by local people exist and can perhaps be harnessed.
- collaborative forest management (where the state manages forests with local people for sustainable use)
- protected area management which aims to involve local people in protection and management, in return for rural development initiatives or cash

11

Forest management with local people

- Independent forest management by local people has been best analyzed in the Common Property Resources literature.
- But its findings are insufficiently familiar to field managers, brokering arrangements between
  - local people and the state
  - local people and the managers of protected areas
- So: Insights which predict the conditions under which collaborative forest management or protected area management might work, have been ignored.

12

Changing relationships between the poor and forests

- growing population pressure
- declining rural labour availability
- changing market opportunities
- new agricultural technologies which make it possible to cultivate bigger areas (chainsaws, tractors).
- lack of legal recognition and visibility; or new imposed land tenure arrangements
- rising forest values bringing competition from outside which local managers cannot challenge or control

13

Result may be decreased forest use

- Improved supplies of food crops may diminish the need to depend on forest foods.
- In Vanuatu the introduction of the sweet potato, which produces an edible crop in three months, and manioc, which can be left unharvested for up to two years, have ousted traditional forest emergency foods.
- As the pressures on women's time get greater they may no longer have time for gathering or processing forest foods.
- Ground nuts in West Africa reduced the importance of wild sources of food oils such as shea butter nut because production time was greatly reduced.

14

Result may be increased forest use

- The need of the poor for income from forest product activities can result in the diversion of forest products from own consumption to the market
- Where the population is growing faster than incomes, 'short-term' forest product activities emerge to absorb people unable to obtain wage employment.
- Rapid changes in forest dependence where sudden external economic change takes place, and additional people turn to NTFP collecting, or mat or charcoal making.
  - E.g. countries where structural adjustment programmes are introduced (Cameroon) or national access to world markets deteriorates (Zambia)

15

Poverty and policy priorities

- Find a way to understand and support livelihood needs more effectively in forest management.
- Choose strategies, ways of managing, products bias and time frames to suit the poor; being aware that the poor have a greater proportion of their total livelihood bundle invested in gathered benefits from the forest.
- Accept that people need freedom to manage forest for their own goals: they are not government employees**.**

16

Protected area management and the poor

- People are a reality in virtually all protected areas
- Initiatives to link PAs with local social and economic development try only to provide incentives for park neighbours to support conservation
- Little understanding of the circumstances in which people want to manage forests, and how they manage.
- There has been little trust in the capacities of local people among Protected Area managers and staff**.**

17

Winners and losers

- The losers in most PAS are local people with modest incomes, losing vital subsistence access.
- The benefits go to the global community whose livelihoods are assured in other ways.
- The biggest challenges to forest conservation are coming from much more powerful sources - logging companies, mining companies, roads and dams.
- A closer and more equitable working relationship between poor local people and PAs is overdue.

18

Implications for donor policy

- More varied strategies for different kinds of countries. The poorest countries need more financial help with Protected Areas than middle income or newly industrialising countries.
- urbanisation levels - protected areas face different realities in mainly rural countries
- accepted corruption levels in e.g. the awarding of concessions
- the degree of political stability

19

Key principles

- bring both livelihood interests and biodiversity interests into forest policy
- In areas of high biodiversity and high livelihood dependence, a more fine-grained patch-by-patch planning process is needed. As much multiple use as possible can then be agreed, and areas for complete protection kept small.
- Attention to outdated forest laws in many countries is essential, if local management capacities are to be harnessed. Local people can then be given both rights and responsibilities.

20

Conclusions: Assets for the poor

- Foresters have become accustomed, over the last 20 years to working with local people: first on tree-planting and more recently on forest management.
- 'Local people', were initially undifferentiated, but more recently, intra-village and household difference has been better understood.
- There is more acceptance that local people can be capable forest managers given rights to the resource and the right to manage for the products they need.
- Livelihoods approaches have brought greater that forests form only a part of the assets of local people.

21

Conclusions - What next?

- A final major challenge remains.
- We know more and more about the capacities and needs of local people and the values they derive from forest.
- But we lack ways of aggregating these findings to the national level, so that they can be given more weight in national planning; and so that forests will no longer be undervalued as assets for the poor.
- This is research upon which ODI is now embarking.

22

ANNEXES

Natural Resources Systems Programme

Workshop, 29-30 November 2000

Improving the poverty focus of NRSP's research on the management of natural resources

Aims of the Workshop

The workshop's title expresses the workshop's main aim. The justification for this aim directly arises from DFID's prioritisation of poverty reduction and the impact of this on the natural resources (NR) research strategy of the Rural Livelihoods Department.

With respect to the 10-year research term of NRSP, DFID's policy shift was registered in the programme's aims and design at the start of year 5, which coincided with the programme's new management term under HTS. Soon after hand over, members of the NRSP management team familiarised themselves with the earlier research, analysed its achievements and gave serious attention to the re-orientation of the programme to meet DFID's new requirements. By now, with just less than four and a half years remaining of NRSP's guaranteed life, there is increasing pressure to deliver research results for NR management that can provide effective ways to build the livelihoods of the poor. Hence the decision to hold the workshop to provide a forum at which experiences are exchanged, issues are discussed and ways forward are identified that will assist the design of NR management research in the future and enhance its relevance to the poor and to poverty reduction.

Workshop plan

Our central plan is to use and build on project experiences as a means of identifying and discussing some of the main issues regarding NR management research and poverty.

In the programme, we have identified 4 theme areas as expressed in the titles of sessions 2, 3, 5 and 7. These theme areas are <u>not</u> intended to be an exclusive listing of the topics that the workshop should address. Rather, they have been selected because they are pertinent to many of the projects in NRSP's portfolio and thus provide entry points through which experiences can be shared and by which a range of relevant issues can be identified and discussed.

Guidelines for presentations

The preferred scope of each presentation is indicated in the expanded title that is given in the programme. Presenters should not feel constrained to report a finished product with respect to the subject matter of their title and theme area to which their presentation relates. Rather there should be an openness about progress and problems, possibly including a critique of the methods used, and consideration of how effectively the research has targeted a specific group or category of the poor.

Speakers are requested please to keep to their allotted time of **10 minutes for Sessions 2, 3 and 5**, and **20 minutes for Session 7**. Thank you.

FM Quin
NRSP - Programme Manager
HTS Development Ltd

27 October 2000

Natural Resources Systems Programme

Workshop, 29-30 November 2000 at IACR Rothamsted: Improving the poverty focus of NRSP's research on the management of natural resources

PROGRAMME

29 November 2000		
Session 1	**Introduction**	
1000-1040	Chairperson: Derek Sutton (DFID Adviser on NRSP PAC) Rapporteurs: Glenn Richards and ManFai Tang	
1000-1015	Welcome	PAC Chairperson – Michael Mortimore
	Introduction of participants	
	NRSP's aims (what is NRSP about)	
	Brief mention of the composition of past portfolio and recent trends in portfolio composition including some common themes across systems (e.g., projects in several systems address the gap between technology availability and uptake; methodologies for consensus building for CPRs etc).	
1015-1030	Aims of the workshop	NRSP Manager – Margaret Quin
	Main way that is intended for achieving these aims – using and building on project experience	
	Changes during the life of NRSP (1995 to present) in the way in which NR management research has been conducted; responsiveness to DFID's present priorities and targets	
1030-1035	Brief resume of the programme and how sessions will be handled in respect of presentations, plenary discussion and working groups.	
1035-1040	Questions	
Session 2	**Project experience of characterising poverty and livelihood strategies**	
1040-1140	Chairperson: Kate Young (member of NRSP PAC) Rapporteurs: Heather Mackay and Robynne Reeve-Johnson	
1040-1045	Introduction (quick resumé of the theme and of the selected projects in NRSP's portfolio)	By the chairperson
1045-1055	Livelihood strategies and resource use in the Bangladesh floodplain – opportunities for benefiting the poor where competing uses of resources occur	Julian FF Barr (R6756 & R7562)
1055-1105	Household coping strategies in the semi-arid communal lands of Zimbabwe – description of livelihood strategies including the determinants of impoverishment and accumulation	Kate Bird and AW Shepherd (R7545)
1105-1115	Household coping strategies in Tanzania – studies of livelihoods of pastoralists – role of links between poor and less poor in the coping strategies of the poor	Mike Morris (R7805 & R7806)
1115-1125	A study of coastal livelihoods in Laborie, St. Lucia – social, human and financial capital. How different resources are used and integrated into household strategies of different stakeholder groups	Allan Smith (R7559)
1125-1140	Questions (for clarification) and comments on points of major concern or additional relevant information	

29 November 2000 continued		
Session 3	**Participatory methods and inclusive planning as a means to strengthen the involvement of the poor in research design and the research process**	
1140-1240	Chairperson: Christine Okali Rapporteurs: Crispen Marunda and ManFai Tang	
1140-1145	Introduction (quick resumé of the theme and of the selected projects in NRSP's portfolio)	By the chairperson
1145-1155	Development of a participatory action research methodology to assist communities in assessing implications and outcomes of community forestry	Oliver Springate-Baginski (R6778)
1155-1205	Participation in coastal zone decision-making by diverse individuals, groups and institutions	Kate Brown (R6919 & R7408)
1205-1215	Demand assessment for technologies for on-farm management of natural resources – household sampling decisions and experience of using participatory farm management methods	Chris J Garforth (R7537)
1215-1225	Community-led tools for enhancing natural resource management – problems and progress in ensuring the inclusion of poor households	Jamie Fairbairn (R7584)
1225-1240	Questions (for clarification) and comments on points of major concern or additional relevant information	
1240-1300	**Sessions 2 & 3**: **End of morning wrap up** Chairperson: Margaret Quin Rapporteurs: Glenn Richards and Robynne Reeve-Johnson • In the context of the aims of workshop, for sessions 1 and 2, synthesis of findings and issues and noting of apparent gaps and opportunities • Identification of topics/issues for working groups drawing on this synthesis • Arrangements for working groups	
1300-1400	Lunch	
1400-1515	Working Group discussions on Sessions 2 & 3	
1515-1535	Refreshments	
Session 4	**Reports of working groups on Sessions 2 and 3**	
1535-1700	Chairperson: Kevin Waldie Rapporteurs: Crispen Marunda and Heather Mackay	
1535-1545	WG1	
1545-1555	WG2	
1555-1605	WG3	
1605-1615	WG4	
1615-1625	WG5	
1625-1635	WG6	
1635-1700	Synthesis across working groups	

29 November 2000 continued	
Pre-lecture	**Drinks and snacks**
1830-1930	**Evening lecture with two topics**:
	Applying a poverty focus to livelihoods research: experiences from the Centre for Development Studies, University of Wales, Swansea
	Eleanor Fisher and Mary Ann Brocklesbury, Centre for Development Studies, University of Wales, Swansea
	Forests and poverty
	Gill Shepherd, Overseas Development Institute
	Chairperson: Michael Mortimore
2000	Dinner at Rothamsted Manor

30 November 2000		
Session 5	**Strengthening the links between social, economic and technical research to improve the impact of research that concerns the poor and their use and management of natural resources**	
0900-1030	Chairperson: Louise Shaxson Rapporteurs: Glenn Richards and ManFai Tang	
0900-0905	Introduction (quick resumé of the theme and of the selected projects in NRSP's portfolio)	By the chairperson
0905-0915	Anecdotal information on farmers' views and practices is not an acceptable substitute for social analysis – experiences from the viewpoints of biophysical and social scientists	Elizabeth Robinson, Stephanie White and Robert M Brook (R6751, R7600 & R7471 [CPP]; NRSP PUI projects in India)
0915-0925	Experience of inter-disciplinary research in the context of the development of a methodology for incorporating indigenous knowledge into NR research	Peter Dixon (R6744)
0925-0935	Developing approaches to address gender specific needs in relation to access to technological change – enabling NR scientists to develop appropriate gender questions relevant to their technical areas of interest	Christine Okali (R7039)
0935-0945	Integrated research on natural resource management – experiences of different approaches to examining biophysical, social and economic interactions	Peter Frost (R7304)
0945-0955	Bridging knowledge gaps between soils research and dissemination – Challenges and applications of an interdisciplinary method for incorporating local knowledge into natural resources management research and extension	Fergus L Sinclair (R7516)
0955-1010	Questions (for clarification) and comments on points of major concern or additional relevant information	
1010-1030	• In the context of the aims of workshop, for session 4, synthesis of findings and issues and noting of apparent gaps and opportunities • Identification of topics/issues for working groups • Arrangements for working groups	

30 November 2000 continued		
1030-1050	Refreshments	
1050-1200	Working Group discussions on Session 5	
Session 6	**Reports of working groups on Session 5**	
1200-1430	Chairperson: Michael Mortimore Rapporteurs: Heather Mackay and Crispen Marunda	
1200-1210	WG1	
1210-1220	WG2	
1220-1230	WG3	
1230-1240	WG4	
1240-1250	WG5	
1250-1300	WG6	
1300-1400	Lunch	
1400-1430	Synthesis across working groups	
Session 7 **1430-1515**	**Knowledge flows: Study of the reach, use and impact of NRSP's communication methods and media products**	
	Chairperson: Roger Stern Rapporteurs: Glenn Richards and Robynne Reeve-Johnson	
1430-1455	Presentation of preliminary findings of the Study	Pat Norrish
1455-1515	Plenary discussion of the report	
Session 8	**Workshop wrap up**	
1515-1600	Chairperson: Margaret Quin Rapporteurs: ManFai Tang and Heather Mackay	
1515-1545	Main findings and recommendations on ways forward	NRSP PAC & Steering Group members
1545-1600	Concluding remarks	Michael Mortimore
	Refreshments	

LIST OF PARTICIPANTS IN NRSP POVERTY WORKSHOP 29-30 NOVEMBER 2000

Mr Martin Adam
Natural Resources Institute
Central Avenue, Chatham Maritime
Chatham, Kent ME4 4TB
Tel: 01634 883113
Email: M.G.Adam@greenwich.ac.uk

Mr Julian Barr
CLUWRR, University of Newcastle
Newcastle upon Tyne
NE1 7RU
Tel: 0191 222 6563
Email: J.J.F.Barr@ncl.ac.uk and now at julian.barr@itad.com

Ms Kate Bird
International Development Department
University of Birmingham
Birmingham
B15 2TT
Tel: 0121 414 7591
Email: k.r.bird@bham.ac.uk

Dr Mary Ann Brocklesbury
University of Wales, Swansea
Centre for Development Studies
Swansea
SA 2 8PP
Tel: 01792 205678 x4354
Email: M.A.Brocklesby@swansea.ac.uk

Dr Robert Brook
School of Agricultural and Forest Sciences
University of Bangor
Bangor
Gwynedd
Tel: 01248 382 631
Email: r.m.brook@bangor.ac.uk

Dr Katrina Brown
ODG, University of East Anglia
School of Development Studies
Norwich
NR4 7TJ
Tel: 01603 593 439
Email: k.brown@uea.ac.uk

Mr Stuart Bunting
Institute of Aquaculture, University of Stirling
Stirling
FK9 4LA
Tel: 01786 467 878
Email: s.w.bunting@stir.ac.uk

Dr George Cadisch
Wye College, University of London
Ashford, Kent
TN25 5AH
Tel: 01233 812401
Email: g.cadisch@ic.ac.uk

Prof Mike Carr
Fernbeck, 29 Bedford Road, Clophill
Bedford MK45 4AE
Tel: 01525 861 185
Email: mikecarr.rtcs@freeuk.com

Dr Stuart Coupe
Intermediate Technology Development Group
Bourton Hall, Bourton-on-Dunsmore
Rugby, Warwickshire
CV23 9QZ
Tel: 01788 661100
Email: StuartC@itdg.org.uk

Dr Peter Dixon
Department of Anthropology
University of Durham
43 Old Elvet
Durham
DH1 3HN
Tel: 0191 374 2856
Email: p.j.dixon@durham.ac.uk

Dr Peter Dorward
Department of Agriculture
University of Reading
PO Box 237
Reading
RG6 6AR
Tel: 0118 9318492
Email: p.t.dorward@reading.ac.uk

Dr Jamie Fairbairn
School of Geography
University of Leeds
31 Wood Lane Leeds
Leeds
LS6 2AY
Tel: 0113 233 3313
Email: jambuko33@hotmail.com

Dr Eleanor Fisher
University of Wales, Swansea
SSSID/Centre for Development Studies
Swansea
SA 2 8PP
Tel: 01792 205678 x4351
Email: e.fisher@swansea.ac.uk

Prof Peter Frost
University of Zimbabwe
Mount Pleasant
Harare PO Box M.P.167
Zimbabwe
Tel: 00 263 4 302603
Email: pfrost@science.uz.ac.zw

Prof Chris Garforth
AERDD, University of Reading
3 Earley Gate, Whiteknights Road
Reading
RG6 6AL
Tel: 0118 931 6514
Email: c.j.garforth@reading.ac.uk

Dr John Gaunt
IACR, Rothamsted
Harpenden
Herts
AL5 2JQ
Tel: 01 582 763133 x 2611
Email: john.gaunt@bbsrc.ac.uk

Mr Neil Marsland
Natural Resources Institute
Central Avenue
Chatham Maritime
Chatham, Kent
ME4 4TB
Tel: 01634 883113
Email: N.K.Marsland@greenwich.ac.uk

Dr Robin Matthews
Cranfield University
Silsoe
Bedfordshire
MK45 4DT
Tel: 01525 863 000
Email: r.b.matthews@cranfield.ac.uk

Mr Michael Mattingly
Development Planning Unit
University College London
9 Endsleigh Gardens
London
WC1H 0ED
Tel: 0171 3887581
Email: m.mattingly@ucl.ac.uk

Dr Emmanuel Mbiha
Sokoine University of Agriculture
P.O. Box 3000
Morogoro
Tanzania
Tel: 00 255 56 3415
Email: mbiha@suanet.ac.tz

Dr Morag McDonald
School of Agricultural and Forest Sciences
University of Bangor
Bangor, Gwynedd
LL57 2UW
Tel: 01248 382 631
Email: mamcd@bangor.ac.uk

Dr Duncan McGregor
CEDAR Royal Holloway, University of London
Egham
Surrey
TW20 0EX
Tel: 01784 443 651
Email: d.mcgregor@rhbnc.ac.uk

Ms Tabitha Middleton
Silsoe Research Institute
Wrest Park
Silsoe, Bedford
MK45 4HS
Tel: 01525 860 000
Email: John@bickerstethhouse.demon.co.uk

Dr Mike Morris
Natural Resources Institute
Central Avenue, Chatham Maritime
Chatham, Kent ME4 4TB
Tel: 01634 883113
Email: M.J.Morris@gre.ac.uk

Dr Michael Mortimore (PAC Chairman)
African Drylands Research
17 Market Square, Crewkerne
Somerset
TA18 7LG
Tel: 01460 75363
Email: mikemortimore@compuserve.com

Dr James Morton
HTS Development Limited
Thamesfield House, Boundary Way
Hemel Hempstead
HP2 7SR
Tel: 01844 260 887
Email: james.morton@htsdevelopment.co.uk

Dr Robert Muetzelfeldt
University of Edinburgh
Institute of Ecology & Resource
Management, Darwin Building
King's Buildings
Edinburgh
EH9 3JU
Tel: 0131 6678938
Email: robertm@srv0.bio.ed.ac.uk

Dr Patricia Norrish
AERRD, University of Reading
3 Earley Gate, Whiteknights Road
Reading
RG6 6AL
Tel: 01753 884682
Email: p.e.norrish@reading.ac.uk
j.norrish@ioe.ac.uk

Dr Fiona Nunan
International Development Department
University of Birmingham
Edgbaston, Birmingham
B15 2TT
Tel: 0121 414 7257
Email: f.s.nunan@bham.ac.uk

Dr Christine Okali
University of East Anglia
11 York Street
Norwich
NR2 2AN
Tel: 01603 593 439
Email: c.okali@uea.ac.uk

Dr F Margaret Quin (NRSP Manager)
HTS Development Limited
Thamesfield House, Boundary Way
Hemel Hempstead
HP2 7SR
Tel: 01442 314 369
Email: fm.quin@htsdevelopment.com

Dr David Reece
Overseas Development Group
University of East Anglia
Norwich
NR2 2AN
Tel:
Email: d.reece@uea.ac.uk

Dr Elizabeth Robinson
Natural Resources Institute
Central Avenue, Chatham Maritime
Chatham, Kent
ME4 4TB
Tel: 01634 883051
Email: E.Robinson@gre.ac.uk

Dr Pascal Sanginga
Africa Highlands Initiative -International Centre for Tropical Agriculture (CIAT)
Kabale Benchmark Site
Kabale
Uganda
PO Box 239
Tel: 00 256 486 23153
Email: sanginga@infocom.co.ug

Ms Louise Shaxson
12 St Kevin's Park
Dartry
Dublin 6
Ireland
Tel: 00 353 1 491 0565
Email: Louiseshaxson@compuserve.com

Dr Andrew Shepherd
International Development Department, University of Birmingham
Edgbaston
Birmingham
B15 2TT
Tel: 0121 414 7257
Email: A.W.Shepherd@bham.ac.uk

Dr Gill Shepherd
Overseas Development Institute
111 Westminster Bridge Road
London
SE1 7JD
Tel: 0207 922 0300
Email: g.shepherd@odi.org.uk

Dr Fergus Sinclair
School of Agricultural and Forest Sciences
University of Bangor
Bangor LL57 2UW
Tel: 01248 382 631
Email: f.l.sinclair@bangor.ac.uk

Mr Allan Smith
Caribbean Natural Resources Institute
New Dock Road
Vieux Fort PO Box VF383
St Lucia
Tel: 001 758 454 6060
Email: smitha@candw.lc

Mr Oliver Springate -Baginski
University of Leeds
Leeds
LS2 9JT
Tel: 0113 2336715
Email: olivers@geog.leeds.ac.uk

Dr Roger Stern
SSC, University of Reading
3 Earley Gate, Whiteknights Road
Reading
RG6 6AL
Tel:
Email: r.d.stern@reading.ac.uk

Mr Derek Sutton
DFID, Room V305 c/o Marnie Durnford, V340
94 Victoria Street
London
SW1E 5JL
Tel: 0171 917 0643
Email: derek.sutton@dial.pipex.com

Dr Graham Thomas
Cranfield University
Silsoe
Bedfordshire
MK45 4DT
Tel: 01525 863 061
Email: g.thomas@cranfield.ac.uk

Mr Alex Turrall
Department for International Development
94 Victoria Street
London
SW1E 5JL
Tel:
Email c/o: am-chapman@dfid.gov.uk

Dr Stephanie White
IACR, Rothamsted
Harpenden
Herts
AL5 2JQ
Tel: 0118 931 8134
Email: stephanie.white@bbsrc.co.uk

Dr Nicholas Willoughby
Natural Resources Institute
Central Avenue
Chatham Maritime
Chatham, Kent
ME4 4TB
Tel: 01634 883113
Email: n.g.willoughby@gre.ac.uk

Dr Kate Young
13 Stratford Villas
London
NW1 9SJ
Tel: 0171 485 4430
Email: gardenky@aol.com

Dr Kevin Waldie
University of Reading
3 Earley Gate, Whiteknights Road
Reading
RG6 6AL
Tel:
Email: k.j.waldie@reading.ac.uk

Dr Keith Williams
University of Nottingham
School of Geography
Environmental Management Programme
University Park
Nottingham
NG7 2RD
Tel: 0115 951 5449
Email: keith.williams@nottingham.ac.uk

Dr Gil Yaron
GY Associates
32 Amenbury Lane, Harpenden
Herts
AL5 2DF
Tel: 01582 460 551
Email: gil_yaron@gya.co.uk

Organisers and Rapporteurs

Miss Heather Mackay
NRSP Assistant Manager
HTS Development
Thamesfield House
Boundary Way
Hemel Hempstead, Herts
HP2 7SR
Tel: 01442 214 369
Email: heather.mackay@htsdevelopment.com

Mr Crispen Marunda
Department of Environment
University of York
Heslington
York
YO10 5DD
Tel: 01904 434067
Email: ctm103@york.ac.uk

Miss Robynne Reeve-Johnson
12 Astrop Road
Kings Sutton
Oxfordshire
OX17 3PG
Tel: 01295 810059
Email: robynnerj@netscape.co.uk

Mr Glenn Richards
HTS Development
Thamesfield House
Boundary Way
Hemel Hempstead, Herts
HP2 7SR
Tel:
Email: glenn.richards@htsdevelopment.com

Mr David Short
HTS Development
Thamesfield House
Boundary Way
Hemel Hempstead, Herts
HP2 7SR
Tel: 01442 214 369
Email: david.short@htsdevelopment.com

Mr ManFai Tang
HTS Development
Thamesfield House
Boundary Way
Hemel Hempstead, Herts
HP2 7SR
Tel:
Email: manfai.tang@htsdevelopment.com

The Natural Resources Systems Programme (NRSP) undertakes research on the integrated management of natural resources. This encompasses the social, economic, institutional and biophysical factors that influence people's ability to both use and maintain the productive potential of the natural resource (NR) base over a relatively long timeframe. The intended outcome of the research is that NR-related strategies for improving people's livelihoods, that are of proven relevance to specified groups of poor people, will be delivered in forms that could be taken up by the poor themselves and/or by development practitioners operating at a range of level's, from grassroots to senior policy level.

HTS Development Limited
Thamesfield House
Boundary Way
Hemel Hempstead
HP2 7SR
Tel: +44 (0)1442 214369
Email: nrsp@htsdevelopment.com
Website: www.nrsp.co.uk

Marine Resources Assessment Group Ltd
47 Prince's Gate
London
SW7 2QA

Development Planning Unit
The Barlett
University College London
9 Endsleigh Gardens
London
WC1H 0ED