

**SOCIO-ECONOMIC METHODOLOGIES
FOR NATURAL RESOURCES RESEARCH
BEST PRACTICE GUIDELINES**

**INSTITUTIONAL ANALYSIS IN
NATURAL RESOURCES RESEARCH**

Harriet Matsuert

Natural Resources Institute, The University of Greenwich

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INTRODUCTION

The Department for International Development (DFID) Renewable Natural Resource Research Strategy and National Strategies for Sustainable Development require research projects to demonstrate a high level of awareness of their institutional context. Research must be compatible with local legislation and policy. Projects should identify and, wherever possible, work together with local partners. Uptake and dissemination pathways should be identified and developed from the start.

Institutional analysis can assist research managers in meeting these aims. The approaches described in this guide can be used to:

- review the research and development capability of institutions in a particular area;
- assess how a new research initiative can contribute to building this capability;
- identify key partners and networks for research and development activities;
- develop approaches which promote a sense of ownership in the research activity/project by key partners;
- be aware of institutional issues which could hinder, or help a research project;
- monitor and evaluate the impact of a project on institutions, linkages and research and development capability.

BOX 1: Institutional analysis in tools and tillage research in Kenya

Researchers involved in participatory technology development for improved tools for land preparation and tillage spent time identifying local institutions and networks involved in tool supply and repair for farmers in the target area. They found that tool development, supply and repair involved a wide network of institutions ranging from the local blacksmith working without electricity on his own forge, the *jua kali* small-scale entrepreneurs at the district and regional centres, to larger factories in the capital and university and government research centres.

All stakeholders were invited to a 'tool fair' in the project area and following this the project attempted to work with various stakeholders on different areas of tool development. Some linkages were more successful than others. The most profitable linkage turned out to be that between farmers groups and the regional *jua kali* tool-makers who were flexible, innovative and keen to develop new markets. Because the key stakeholders had been involved from the beginning of the technology development process, the ownership of the process by farmers and the *jua kali* association was high. Key linkages for needs identification, technology development and supply had been made. As a result there was no need for a separate technology dissemination or extension stage of the project to be carried out. As appropriate tools were developed they were sold. As the *jua kalis* were based in the main regional town, farmers from all over the region were able to see the new equipment when they came to buy other inputs.

Source: Skinner (1994) Dryland Applied Research and Extension Project, Kenya.

SCOPE OF THIS GUIDE

This guide has been written primarily for natural resources researchers. The section on ‘Key institutional issues in renewable natural resources research’ (see below) provides an overview of some key institutional issues to be considered in renewable natural resources (RNR) research. The section on ‘Types of institutional analysis for RNR research’ (see page 4) goes on to describe some frameworks, approaches and research tools which have been developed for institutional analysis. A number of case studies throughout the guide illustrate the use of institutional analysis in a range of RNR research and development activities.

BOX 2: Definitions: approaches, tools and frameworks

Approach This refers to the type of methods used for analysis, e.g. quantitative approaches require the collection of a statistically valid sample of numerical data, in participatory approaches those studied are involved in the collection and analysis of data, stakeholder approaches involve the identification of all interested parties.

Tool Within an approach there are many individual tools which can be used for data collection or analysis, e.g. literature review, group discussion or key informant interview.

Framework Within an approach, frameworks provide a way of organizing information collected and a perspective for analysis. Frameworks include complicated models which require the input of large amounts of numerical data or more simple visual models such as stakeholder matrices or Venn diagrams.

The guide concludes with an overview of ongoing research and development in institutional analysis for RNR research (see page 11).

This guide is intended as an introduction. Detailed, step-by-step guidelines to individual tools and frameworks are not given here. However the ‘further reading’ section (see page 12) provides references for more in-depth guides as well as providing some useful contacts and websites.

KEY INSTITUTIONAL ISSUES IN RENEWABLE NATURAL RESOURCES RESEARCH

Institutions can be defined as organizations or sets of conventions, policies or legislation which regularize social behaviour. Institutions operate at all levels from the household to the international arena and in all spheres from the most private to the most public.

The institutional environment is dynamic and changing. Processes such as political change, privatization, market liberalization and globalization can have a dramatic impact on the organizations and conventions of RNR management. The institutional environment is part of the wider context in which the clients of RNR research operate. It is just as important to understand the institutional context as it is to look at the physical environmental context of technology intervention. Analysis of the institutional context, referred to as ‘transforming structures and processes’, is a key component of the DFID livelihoods approach.

Table 1 shows the institutions which may have particular relevance for a research project.

TABLE 1: Institutions which may have relevance for a research project

Organizations	Other institutions
<ul style="list-style-type: none"> • User organizations, e.g. village committees, farmers' unions • Local NGOs • National or international NGOs • Executive agencies, e.g. public sector research and extension organizations • Private sector • Financial institutions • Parastatals • Political bodies • Judicial bodies • Bilateral projects • Donors • International research organizations 	<ul style="list-style-type: none"> • Informal networks and conventions, e.g. the organizational arrangements of informal agricultural work parties or fishing groups • Legislation and policy

All of these institutions may have relevance for a particular research activity and may have the potential to assist in (or hinder) research and to be instrumental in uptake and dissemination. Different types of institution may be particularly important at different stages of a project's life, for example, international research organizations for funding and dissemination of findings to other researchers, grass roots organizations for investigating indigenous knowledge and practices, and research partnerships for local dissemination.

Certain types of projects may find analysis of legislation and policy more important than others. It may be very important, for example, for those working in common resource management areas.

When identifying and analysing the institutional context of RNR research and development, there are some important issues to consider.

- **Research capability**

Do local institutions work together to create a dynamic and sustainable research process? How can this project or research activity complement or enhance other research and development actors' work in the existing system?

- **Monitoring and evaluation**

It is important that the impact of the project on research capability be monitored. Where possible this should be done in a participatory way to encourage shared goals and joint planning.

- **Complementarity**

Is there potential to work together with other organizations? Can participatory research be carried out through formal or informal client groups rather than through creating new institutions?

- Political context

Institutional development involves changing rules and conventions or the relationships between organizations. Are there institutions which may be threatened by the proposed project or research activity? Is there a way this can be reduced by involving them in planned ways in all phases of the project? (See Lewis, 1998.)

- Policy/legislation

How do local policy, legislation and institutional conventions affect natural resource management decisions? Are proposed research outputs compatible with policy and legislation? What are the legal processes involved in developing and promoting a new technology, for example, procedures for releasing new seed varieties? How might these affect the project's work?

- Uptake and dissemination

What are the key proposed institutional pathways for uptake and dissemination? Who are the key institutional partners? The project must work with these from the start.

- Relative strengths

It is easy to find faults and weaknesses in institutions. A more useful approach is to look carefully for strengths and opportunities with which a project can work. Institutional analysis can help to identify effective institutions and key linkages which can assist a project in meeting its aims. These may often be found outside the formal research and extension structures, for example, informal networks or the private sector.

TYPES OF INSTITUTIONAL ANALYSIS FOR RNR RESEARCH

Institutional analysis is particularly important at the *ex ante* pre-project and planning stage of research activities or projects. At this stage it can be used to identify key partners, networks and information flows, and to decide on the appropriate institutional setting for the proposed activity, for example, within which ministry or research institute will it be situated? Analysis at this stage will also provide a baseline which can be used to monitor, review, make changes and evaluate change throughout the project's life.

Institutional analysis continues to be important throughout a project's life. It can be used to plan a particular activity, or evaluate its impact, for example, the organization of a seed fair (Box 4). It should also be used for regular internal and external monitoring of project activities, for adapting to unexpected changes and for *ex post* evaluation.

This section describes some important approaches, frameworks and tools which can be used for institutional analysis throughout a project's life. Stakeholder analysis (page 6) and a review of the legislative and policy environment (page 5), are essential to all RNR projects. The participatory tools and frameworks described and the systems approach (page 9) are also extremely useful and are highly recommended for work with client groups. The case study in Box 1 illustrates how using a participatory approach with key institutional stakeholders can help bridge the gap between the research and extension stages of technology development.

Holistic frameworks and in-depth socio-economic research (pages 10 and 11) are more specialist and appropriate for projects for which institutional strengthening is the main purpose.

Analysis of legislation and policy environment

The legislative and policy environment can impact critically on many aspects of RNR management. It is important that projects are aware of the opportunities and limitations of this environment from the very start. For some projects a brief review is all that is necessary. Where legislation has important implications on the research area, more in-depth analysis will be needed.

Methods which may be useful for this include:

- key informant interviews;
- time lines developed in group discussions showing key changes and impacts;
- literature review (government institutions, lobby groups, user groups, e.g. farmer's unions may be able to provide relevant information).

The case study in Box 3 provides an example of legislative analysis at the project scoping stage.

BOX 3: Understanding access to land and water rights for the rural poor in Bangladesh

The methodology for this scoping study began with a review of the existing legislative, regulatory and judicial framework governing access to land in Bangladesh. Principal stakeholders involved in policy-making, land revenue administration and transacting in land were identified. Extensive discussions were held with stakeholders to identify their different roles and strategies. Focus group discussions were held in selected villages to appreciate the ways in which the actual outcomes of various land administration legislation differed from their intended outcomes, and to understand the consequences for the rural poor. Regional workshops were held with NGOs to understand key issues relating to land and water and the approaches being tried out to tackle the constraints. Triangulation or cross-checking was used to assess data quality.

The legislative and policy context was summarized in a framework giving the date, relevant legislation, policy, main provisions and notes on their broad impact. Stakeholder analysis was conducted to assess the manner in which different actors might influence or be affected by the process of accessing rights to land and water. The study concludes by identifying potential policy options suggested by the analysis and considers their application for various stakeholder groups.

Source: Sinha *et al.* (2000).

The stakeholder approach

Stakeholder identification, analysis and facilitation techniques provide an extremely useful way for a project to learn about the organizational environment with which it is working. All research projects carry out some form of stakeholder analysis at an early stage (in fact it should be included in project proposals).

The stakeholder approach begins with researchers identifying all those institutions with an interest in the project's activities and outcomes. One method which can be used to do this is a continuum of stakeholders from the macro to micro level (see Figure 1). This provides a useful checklist to the many different levels at which stakeholders may be found.

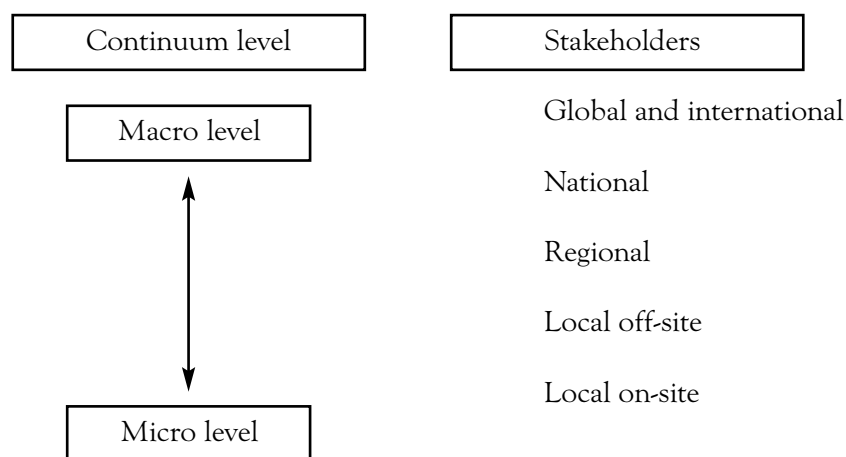


Figure1: Typology of stakeholders on a macro to micro continuum

Source: Grimble *et al.* (1994).

Literature reviews and discussions with key informants are helpful in identifying key stakeholders. There are also a number of useful participatory tools for identifying and characterizing stakeholders with groups (see page 9).

Having identified key stakeholders there is a range of conceptual frameworks which can be used to analyse and map key strengths, weaknesses, linkages and areas of potential conflict. These are summarized in Table 2. The case study (seed fair) in Box 4 gives an example of the use of a matrix in practice.

TABLE 2: Some useful frameworks of stakeholder analysis

Matrices for stakeholder analysis	Application
Importance/influence matrix	Used to map out the relative importance and influence of key stakeholders. Assists projects in deciding who should be involved in planning meetings, who should be consulted and who informed.
Conflict/complementarity matrix	A framework to map areas of co-operation and conflict between key stakeholders. Areas of consensus are useful starting points for co-operative work.
Actor linkage matrix	This approach uses a matrix to map linkages and flows of information between key stakeholders. It can be used to gain an understanding of the key institutional linkages with which the project should work, or strengthen, to achieve its aims. It is useful in identifying strengths and opportunities in a given institutional environment and in the development of meaningful indicators of change (see Biggs and Matsuert (1999) for detailed description). (See also Shrum, 1997's description of social network analysis.)

All these matrices can be used at any level from the local to the international and may be quite complex or sketched on the back of an envelope or flip chart to aid discussion.

The actor linkage matrix can be extremely useful for monitoring and evaluating changes in institutional capacity. It provides a user friendly format (it can be set up in Excel, printed, copied and updated) which can be used to pinpoint, through cell references, the project's objectives for building linkages and flows of information or resources. These cell references provide indicators which can be used to monitor and evaluate progress both by the project and by external evaluators.

A number of facilitation methods have been developed to work with stakeholders for planning and conflict management. One of these is DFID's 'team up approach' for project planning. A useful method for negotiating joint strategies for common resource management, which builds on stakeholder identification, is 'trade-off analysis' developed at the Overseas Development Group of the University of East Anglia. Here stakeholders prioritize key concerns, and development options are ranked against these (see Brown et al. (2000) for detailed description).

Many more stakeholder facilitation techniques can be found in the literature on participatory planning, monitoring and evaluation (see 'Further reading', page 12).

BOX 4: Use of actor linkage matrix to analyse the impact of a seed fair in northern Namibia

A key output of the Kavango Farming Systems Research and Extension Project was to build a regional research capacity by building linkages for research, extension, dissemination and uptake support. The actor linked matrix below shows the strong institutional linkages which occurred in the region (indicated by /), and the areas in which the project hoped to promote stronger links (indicated by *).

One project activity jointly undertaken with extension staff was the organization of a regional seed fair. The fair was attended by representatives from villages throughout the region and by agronomy researchers and seed traders. All participants brought samples of seed that they were planting, testing or supplying. The fair provided an opportunity for farmers, researchers and traders to share information and discuss key issues (such as problems in getting access to seed). As well as sales of seed by traders, many farmers and researchers exchanged seed samples.

After several years of poor rainfall, supply of seed was a critical issue for many farmers. The fair was held at a time when seed supply was transferred from extension to private traders. The fair provided an opportunity for important channels of communication to be formed between these traders and farmer' representatives throughout the region.

The actor linked matrix was used to make an assessment of the institutional impact of the seed fair. The shaded boxes in the table below indicate linkages which have been promoted. The matrix shows the strategic importance of this one activity as all the project's critical linkages have been promoted.

Actor Linked Matrix – Impact of seed fair on institutional capacity building

	A Project	B Farmers	C Extension	D Traders	E Plant researchers
1. Project		//	//	/	//
2. Farmers	//	//	*	*	*
3. Extension	//	//		*	*
4. Traders		/	*		*
5. Plant researchers	/	/	/	*	

Notes

Each box represents a potential flow of information or 'linkage' moving from the vertical to the horizontal axis, for example, cell 1B indicates information flow from project to farmers, cell 2A indicates flow of information from farmers to the project.

Within each box:

/ indicates a flow of information is present

* indicates an area in which the Kavango Farming Systems Research and Extension Project is attempting to promote linkage to increase research capacity. Some may be easier to promote than others.

The shaded area represents linkages promoted through the seed fair.

Source: Biggs and Mutsaers (1999).

Systems approach

The systems approach, which is so useful for mapping linkages between on-farm enterprises, and for planning integrated approaches, can also be applied to institutional analysis. Systems diagrams which visually map organizations, their linkages and flows of information and resources provide an alternative framework of analysis to the matrices described above. Some research teams may find this more visual framework easier to work with than the matrix. Systems diagrams may also be more appropriate for participatory data collection and analysis.

The participatory approach

This approach uses visual and diagrammatic methods of collecting and analysing data which are particularly suitable for working with groups of people. Visual mapping (as in the Venn diagram exercise described in Box 5) can also help provide an idea of quantities and proportions where written and numerical records are not available. These methods are very user friendly and accessible to the non-literate so are useful for grass roots activities.

Some participatory rural appraisal (PRA) frameworks which are useful for collecting information about, and analysing, the institutional environment include:

- **Venn diagrams** – this method (described in Box 5) is used to identify key institutions, assess their importance and their links with the client group (and with each other);
- **roles, rights and responsibilities matrix** – this is used to collect detailed information about local organizations, conventions and policies, and legislation which affect RNR management; symbols can be used to represent different stakeholders and activities, so this method can be used with a non-literate group;

- **time line** – this method can be used to map changes in institutions for RNR management;
- **stakeholder frameworks** described above can also be used in a participatory way, however, they are more suitable for a small, literate group as, unlike the above, they are hard to represent with symbols;
- **systems diagrams** may be more useful for participatory exercises; results could then be converted into matrix form for planning, monitoring and evaluation purposes.

Participatory research handbooks and information bulletins (e.g. Participatory Learning and Action [PLA] news published by IIED) are a useful source of ideas (see ‘Further reading’, page 12).

In order to ‘triangulate’ and check the accuracy of information, the PRA exercises can be carried out with different groups of stakeholders. For example, groups divided by gender or class may provide a different perspective on the institutional environment.

BOX 5: Institutional analysis using a participatory approach in Namibia

Participatory rural appraisal exercises were used to carry out a baseline survey of key agricultural research interests of smallholder farmers in north-eastern Namibia. As part of these exercises, researchers used Venn diagrams to map out the key institutions involved in RNR management at the local level. Members of the participating villages were first asked to name the institutions which were involved in RNR management. The name of each organization was written on a circular piece of paper (large circles were used for important organizations and smaller for less important). The circles were then placed on a large piece of card on which the village was marked. Those institutions which were most present in the village were placed near the centre of the card, with more distant institutions further out. At this stage lines could be drawn on to the diagram to indicate linkages between various institutions. A separate matrix was used to analyse the roles, rights and responsibilities of the various organizations and user groups in the village.

Collecting information in this way allowed a clear visual image of the institutional context of local RNR management to be built up. The method lent itself to a group discussion. All involved could take part and benefit from the analysis, and a shared baseline was drawn up which was used to plan interventions (i.e. who should be involved, consulted, etc.), and for later monitoring and evaluation of project activities.

Source: Matsuert (1998) Kavango Farming Systems Research and Extension Project.

Holistic frameworks

A number of large ‘holistic frameworks’ have been developed to describe and analyse RNR research and development systems. National research institutions or research support bodies such as the International Service for National Agricultural Research (ISNAR) have generally undertaken this task. One example is the ‘CIPP approach’, originally used in the education sector and piloted for RNR in research systems in Brazil:

C – context evaluation
I – input evaluation
P – process evaluation
P – product evaluation

Key data on the research system's context, input, processes and products are collected using a range of quantitative and qualitative methods, for example, analysis of costs, outputs, mapping of social networks and information flows. Findings are collated to create a broad conceptual framework of the research system which can be used for planning, monitoring and evaluation. Other similar frameworks include the 'strategic planning approach' (piloted in Brazil and Bhutan), and the 'INTERPAK approach' developed by the University of Illinois. Detailed descriptions and evaluations of these methods can be found in Horton *et al.* (1993).

Holistic frameworks are potentially extremely useful research management tools, and can provide a more complete understanding of the institutional context (including the legislative and policy environment) than the approaches described above. However, the frameworks developed to date have been criticized for their complexity which makes them difficult for research managers to use in practice. Another weakness has been their failure to address informal institutions involved in RNR research and development. This coupled with the costly and time-consuming data collection requirements for their preparation means they are not currently appropriate for individual research activities or projects. There may be more scope for use when considering reformulation of approaches at programme level.

In-depth qualitative analysis

Methods such as 'institutional ethnographies', social network and flow analysis have been used by social scientists to better understand the workings of research and development systems. These methods are detailed and time-consuming and so not suitable for day-to-day project management. However, elements of these approaches have been adapted for use by development projects and can be found in some of the stakeholder and participatory tools (e.g. actor linkage matrices build on social network and actor-oriented analysis). In complex institutional environments, an in-depth qualitative analysis could be commissioned. Literature reviews may also identify relevant studies by academics.

FURTHER RESEARCH AND FUTURE DEVELOPMENTS

New methods for conducting institutional analysis are constantly being developed. Interesting recent developments include work by the Overseas Development Group of the University of East Anglia which builds on the stakeholder analysis such as the actor linkage matrix and trade-off analysis. Recent studies published in the Overseas Development Institute (ODI) *AgREN* Series by Agbamu (2000) and Goldman *et al.* (2001) have developed new frameworks for describing and characterizing institutions involved in RNR management which may prove useful to others. The Institute of Development Studies (IDS) at the University of Sussex has ongoing work on the

institutionalization of participatory methods. The research programme of IIED focuses on NGO government relations. Networks such as Participatory Technology Development and *PLA Notes* (IIED) act as a forum for development actors to share new ideas and experiences of participatory tools and approaches. Much of this work can be accessed via the internet (see below).

Further work is required to develop more cost-effective and user friendly holistic frameworks to characterize and analyse the institutional environment. There is also a need to develop more effective methodologies for analysing the policy and legislative environment and its impact on RNR management decisions.

There is growing interest in the ways that wider coalitions of institutions can be developed, both to undertake research and to assure better uptake of research outputs. Such coalitions can involve a wide range of institutions from the public and private sectors, including NGOs. They may also operate at several levels, for example, village level bodies (community organizations, local NGOs, etc.), and at 'meso' level (research institutions, private companies, etc.). Institutional coalitions also operate in the context of the wider policy environment which again emphasizes the importance of developing methodologies that address the impact of policy. Current research (e.g. that by Hall (2001) on innovation systems) is developing methodologies that can help to build and monitor the operation of coalitions of institutions. This work will have relevance both at project and programme level.

FURTHER READING

Websites

www.mande.co.uk	Discussion site for participatory monitoring and evaluation.
www.ids.ac.uk	International Development Institute, University of Sussex.
www.iied.org	International Institute for Environment and Development (IIED), ongoing research into NGO-government relationships.
www.odi.org.uk	Many useful papers and project experiences including institutional analysis are published by various networks of the Overseas Development Institute (ODI). Many papers can be accessed online.
www.uea.ac.uk/dev/odg	Overseas Development Group at University of East Anglia, ongoing research into trade-off analysis and actor linkage matrix.
www.evaluation.org.uk	The Evaluation Society.
www.intrac.org	International NGO Training and Research Centre (INTRAC), Oxford.

Journals

Evaluation, Impact Assessment and Project Appraisal. Science and Public Policy.

ILIEA – Participatory Technology Development News (available by email).
Contact: ILEIA Foundation, PO Box 64, NL-3830 AB Leusden, The Netherlands.
Fax: +31-33-4951779, email: ptdc@ileia.nl, www.oneworld.org/ileia.

Journal of Extension Systems.

ODI AgREN Network. Contact: Projects Administrator, Overseas Development Institute, Portland House, Stag Place, London, SW1E 5DP.

PLA Notes. Contact: Resource Centre for PLA, IIED, 3 Endsleigh St, London WC1H 0DD, UK. Fax +44-171-3882826 (claubia.sambo@iied.org).

Public Administration and Development.

The International Journal of Knowledge Transfer.

Useful literature

Institutional analysis – general

BIGGS, S. and SMITH, G. (1998) Contending coalitions in agricultural research and development. Challenges for planning and management. *Knowledge and Policy*.

GOLDSMITH, A. A. (1991) *Institutional Development for Agricultural Research: Concepts, Models and Measures*. The Hague: International Service for National Agricultural Research.

HORTON, D. and MCKAY (1998) Assessing the institutional impact of development co-operation. A case for agricultural research and development. *ISNAR Discussion Paper*, No. 98.2. The Hague: International Service for National Agricultural Research.

LEWIS, D. J. (1998) Partnership as process: building an institutional ethnography of an inter-agency aquaculture project in Bangladesh. pp. 99–115. In: *Development as a Process: Concepts and Methods for Working with Complexity*. Mosse, D., Farrington, J. and Rew, A. (eds). London: Overseas Development Institute/Routledge.

NICHOLSON, T. (1994) Institution building: examining the fit between bureaucracies and indigenous systems. In: *Anthropology of Organizations*. Wright, S. (ed). London: Routledge.

ROLING, N. (1990) The agricultural research-technology transfer interface: a knowledge systems perspective. In: *Making the Link*. Kaimowitz, D. (ed.).

Examples of use of institutional analysis in RNR research projects

AGBAMU, J. (2000) Agricultural research-extension linkage systems: an international perspective. *Agren Network Paper*, No. 106. London: Overseas Development Institute.

Use of a research/extension model to categorize types of research/extension systems and develop recommendations for change.

ALDERS, C., HAVERKORT, B. and VELDHUIZEN VAN, L. (eds) (1993) *Linking with Farmers: Networking for Low External Input and Sustainable Agriculture*. London: IT Publications.

ALSOP, R. and FARRINGTON, J. (1998) Nests, nodes and niches: a system for process monitoring, information exchange and decision making for multiple stakeholders. *World Development*, **26**: 249–260.

Case study from India.

GAUCHAN, D., JOSHI, M. and BIGGS, S. (2000) *A New NARC Strategy for Participatory Technology Development and Linkages with Multiple Actors: A Discussion Paper*.

Good example of institutional analysis and strategy development for a national research system.

GOLDMAN, I. *et al.* (2001) Institutional support for sustainable rural livelihoods in Southern Africa: framework and methodology. *ODI Natural Resource Perspectives*, No. 49. London: Overseas Development Institute.

Documents efforts to identify and work with key stakeholders for pre-project ownership creation and development of an acceptable methodology.

REES *et al.* (2000) AKIS. Baseline of institutional setting for uptake and promotion in Kenya. *Agren Network Paper*, No. 107. London: Overseas Development Institute.

Illustrates use of rapid appraisal of agricultural knowledge systems (RAAKs) methodologies (see below) for project planning.

SHRUM, W. (1997) A social network approach to analysing research systems. A study of Kenya, Ghana and Kerala (India). *ISNAR Briefing Paper*, No. 36. The Hague: International Service for National Agricultural Research.

Example of social network analysis in practice.

SINHA, S. *et al.* (2000) *Access to Land and Water Rights for the Rural Poor in Bangladesh*. Scoping study for DFID. Dhaka: Department for International Development.

Good example of institutional analysis using a range of methods.

Practical guides to methods

Stakeholder approaches

BIGGS, S. and MATSAERT, H. (1999) An actor-oriented approach for strengthening research and development capabilities in natural resource systems. *Public Administration and Development*, **19**: 231–262.

This reviews current methods of planning, monitoring and evaluation for institutional capacity development in RNR management. The actor linkage matrix approach is introduced and illustrated with a number of case studies.

BROWN, K., TOMPKINS, E. and ADGER, W. (2001) *Trade-Off Analysis for Participatory Coastal Zone Decision Making*. Norwich: Overseas Development Group, University of East Anglia.

This is a very useful manual for stakeholder analysis, participatory identification and prioritization of stakeholder concerns and facilitation skills for conflict management. It includes detailed descriptions of tools illustrated by case study material from coastal zone management development in Tobago.

GRIMBLE, R. J. (1998) Stakeholder methodologies in natural resource management. *Socio-economic Methodologies for Natural Resources Research. Best Practice Guidelines*. Chatham, UK: Natural Resources Institute.

An introduction to stakeholder analysis.

GRIMBLE, R. J., AGLIONBY, J. and QUAN, J. (1994) *Tree Resources and Environmental Policy: A Stakeholder Approach. NRI Socio-economic Series 7*. Chatham, UK: Natural Resources Institute.

ODA (1995) *Guidance Note on How To Do Stakeholder Analysis of Aid Projects and Programmes*. London: Overseas Development Administration, Social Development Department.

This publication can be found at:

<http://carryon.oneworld.org/euforic/gb/stake1.htm>

This is a practical guide on how to carry out a stakeholder analysis for a development project.

Participatory approaches

ENGEL, P. G. H. and SALOMAN, M. L. (1997) *Facilitating Innovation for Development. A RAAKs (Rapid Appraisal of Agricultural Knowledge Systems) Resource Book*. Amsterdam: KIT Press.

Available from Kit Press on kitpress@kit.nl

This approach, developed at Wageningen University, describes itself as a “participatory action-research methodology”. The RAAKs toolkit offers a number of conceptual tools and frameworks which can be used for participatory institutional analysis and planning with RNR stakeholders.

SUTHERLAND, A. (1998) Participatory research in natural resources. *Socio-economic Methodologies for Natural Resources Research. Best Practice Guidelines*. Chatham, UK: Natural Resources Institute.

Useful discussion of some of the key issues involved in participatory methods.

Holistic frameworks

HORTON, D., BALLANTYNE, P., PETERSON, W., URIBE, B., GAPASEN, D. and SHERIDAN, K. (1993) *Monitoring and Evaluating Agricultural Research: A Source Book*. Wallingford, UK: CAB International/International Service for National Agricultural Research.

Description of a number of holistic frameworks which have been developed for planning, monitoring and evaluation of change in natural resource research systems.

ISNAR (1988) *Methods for Diagnosing Research System Constraints and Assessing the Impact of Agricultural Research*. Volume 1. *Diagnosing Agricultural Research System Constraints. Proceedings of ISNAR/Rutgers Agricultural Technology Management Workshop, 6–8 July 1988*. The Hague: International Service for National Agricultural Research.

Coalitions of institutions

HALL, A. (2001) The use and development of the Innovation Systems Framework in India. Paper presented at the *North South Research Co-operation Conference, Royal Netherlands Academy of Arts and Science*.