

**COMMUNITY LEVEL USER GROUPS
IN THREE WORLD BANK AIDED
PROJECTS: DO THEY PERFORM AS
EXPECTED?**

ACKNOWLEDGEMENTS

This report was prepared by Ruth Alsop (Sociologist and Task Manager); Disa Sjoblom (Consultant Anthropologist); Ceema Namazie (Consultant Econometrician) and Pawan Patil (Econometrician). The team would like to recognize the inputs of Research Assistants, Gaurav Siddhu for data entry and management, and Bidisha Banerjee and Anand Mathew for their work on the literature survey.

The authors would like to express their gratitude to the villagers who gave us their time during the fieldwork. We would also like to thank the project staff from the Uttar Pradesh Sodic Lands Reclamation Project, the Madhya Pradesh Forestry Project, and the Andhra Pradesh Irrigation Project. World Bank staff associated with each of these projects are also recognized for their support and thoughtful commentary. We could not have completed this work without the help and hard work of the state teams managed by Sahbhagi Siksha Kendra, Lucknow, under the guidance of Naveen Kapoor; Samata, Hyderabad, whose team was headed by Bhanumathi Kalluri; and Rajshree Peters, from MP.

We are in debt to our peer reviewers, Christopher Grootaert of the World Bank and Ruth Meinzen-Dick of the International Food Policy Research Institute for their constructive and valuable guidance. We also thank Luis Constantino for his commentary and helpful suggestions throughout the study.

Additional helpful comments on drafts of this paper were provided by World Bank staff Roberto Zagha, Edgardo Favaro, Valerie Kozel, Stephen Howes, David Marsden, Peter Jipp, Jessica Mott, Irshad Khan and M. Balasubramanian. We have also benefited from comments by Robert Macculloch from the London School of Economics.

Barbara Parker, Consultant Anthropologist, is also recognized for her thoughtful inputs to the report and her editorial assistance and we are indebted to Peter Costolanski for his efforts in formatting the document, and to Rita Soni for administrative support.

None of this work would have been possible without the financial and professional backing of the India Country Management Unit and the Poverty Reduction and Economic Management Unit in South Asia.

BOXES AND TABLES

GLOSSARY AND ACRONYMS

EXECUTIVE SUMMARY

1.	INTRODUCTION	1
2.	BACKGROUND	3
	2.1 Conceptual Framework	3
	2.2 Analytic Focus	5
	2.3 Projects Studied	7
	2.4 Methodology	14
3.	FINDINGS	16
	3.1 Overall Performance	16
	3.2 Achievement of Formal Objectives	17
	3.3 Members Objectives	30
	3.4 Are Groups Functioning as Expected?	35
	3.4.1 Participation	35
	3.4.2 Transparency	43
	3.4.3. Governance and Accountability	44
4.	DISCUSSION AND CONCLUSIONS	49
	4.1 Effectiveness	50
	4.2 Equity	53
	4.3 Sustainability	56
	4.4 Summary	58
	REFERENCES	60

ANNEXES

1	Literature Review
2	Overview and Instructions for Fieldwork in the Districts Selected for the User Group Study
3	India User Group Study Survey Questionnaires
4	Statistical techniques and application
5.1	Evaluation of User Groups
5.2	Evaluation of Meeting User Group Specified Objectives
6	Overview of Social and Economic Characteristics of Respondents, by State
7	Village and Organizational Characteristics, by States
8	Institutional interaction and Presence in the Village, by States
9	Who Attended User Group Meetings?
10	Correlates of Who Benefited from Specified Opportunities Through User Group

BOXES AND TABLES

Box 2.1	Common Property Resources	4
Box 2.2	Social Capital	4
Box 3.1	Members Reasons for Positive Evaluations of User Groups	16
Box 3.2	User Group Objectives	18
Box 3.3	Characteristics of Respondents Associated with Different Assessments	20
Box 3.4	Characteristics of Respondents Associated with Different Assessments	24
Box 3.5	Characteristics of Respondents Associated with Different Assessments	28
Box 3.6	Most Frequently Cited Objectives	31
Box 3.7	Members Views on User Group Objectives	32
Box 3.8	Study Teams' Views on Members Interest in User Groups	34
Box 3.9	Reasons for Lack of Interest in WUAs	36
Box 3.10	Who Attends User Group Meetings	36
Box 3.11	Women as Representatives	37
Box 4.1	Summary of Findings	49
Box 4.2	Response to Findings	50
Box 4.3	Group Development Processes and Impact	53
Table 3.1	Respondents Valuation of Overall Performance of User Group (%)	16
Table 3.2	Percentage of Respondents Ranking Achievement of Formal Objectives	18
Table 3.3	Percentage of Respondents Receiving Most Frequently Expected Benefits	32
Table 3.4	Attendance of UG Meetings	35
Table 3.4	Percentage of Respondents Giving Principal Reason for Non-Attendance	35
Table 3.6	Men and Women Respondents Reporting Attendance of Meetings	39
Table 3.7	Benefits in Uttar Pradesh	39
Table 3.8	Benefits in Madhya Pradesh	40
Table 3.9	Benefits in Andhra Pradesh	41
Table 3.10	Participation in Decision Making	42
Table 3.11	Information Availability	44
Table 3.12	Members Awareness of Finances and Transactions	44
Table 3.13	Respondents' Knowledge of Rules Governing Group Business	45
Table 3.14	Respondents' Knowledge of How Representatives are Selected	46
Table 3.15	Members Satisfaction with Representatives	47
Table 3.16	Members Awareness of Representative Accountability Rules	48

GLOSSARY

<i>Dhaincha</i>	a green manure crop
<i>Gram Panchayat</i>	a level of local government in India, corresponding to between one and five villages
<i>Gram Sabhas</i>	gathering of all eligible voters in a village
<i>Kutchra</i>	using low level of technology e.g. unbaked brick or mud
<i>Pucca</i>	using higher level of technology e.g. baked brick and concrete

ACRONYMS

CPR	Common property resource
DC	Distributive Committee
DFO	Divisional Forest Officer
FA	Farmers' Organizations
FC	Forest Committees
FPC	Forest Protection Committees
GOI	Government of India
I&CADD	Irrigation and Command Area Development Department
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
JFM	Joint Forest Management
MMK	Mahila Mitra Kisan
MK	Mitra Kisan
NFTP	Non-timber Forest Products
NGO	Non-governmental Organization
PC	Project Committee
SIC	Site Implementation Committee
SIP	Site Implementation Plan
TC	Territorial Constituencies
UG	User Group
UPBSN	Uttar Pradesh Bhumi Sudar Nigam
VFC	Village Forest Committees
VRDP	Village Resource Development Programme
WUA	Water Users' Association
WUG	Water User Group

EXECUTIVE SUMMARY

1.1. During March-June 2000, a study of the performance of community level user groups in the management of a shared natural resource was implemented in three Indian states. In each of these states, a World Bank aided project currently including community level user for local resource management was selected for the study: the Sodic Lands Reclamation Project in Uttar Pradesh, the Forestry Project in Madhya Pradesh and the Irrigation Component of Andhra Pradesh's Economic Restructuring Program. The study's objectives were: 1) to enhance understanding of current levels of inclusiveness and effectiveness among community level groups in rural development projects aided by the World Bank, and 2) to draw out issues critical to current support and future design of user groups. Information was collected in 100 villages using a combination of quantitative and qualitative methods, including a survey questionnaire administered to 2,400 user group members and representatives, as well as focus group discussions, financial transaction questionnaires, and village and project staff questionnaires.

1.2. The devolution of management control over natural resources to the local level has been an increasingly common feature of development initiatives during the past 15 years. Among World Bank aided projects in India, nearly 40% now depend upon local organizations such as user groups. It is assumed that participation of users in project implementation will, in addition to improving project outcomes, also foster inclusion of the disadvantaged in decision-making, equitable distribution of the resource in question, local commitment to project objectives, overall democratic governance and accountability. Reports on the actual effectiveness of these organizations in achieving these goals and in implementing their activities, however, is mixed. This study seeks to bring clarity to this debate and to meet the information needs of project planners and managers.

1.3. The enquiry focused on assessing the effectiveness and inclusiveness of settlement or, in the case of irrigation water, system level user groups as perceived by group members. It did not seek to compare their performance with other local organizations or service delivery organizations or to assess the consequences of using user groups arrangements for the quality of service delivered. For each of the three projects, two primary concerns were investigated: group achievement and group functioning. Group achievements were examined in terms of members' ratings of the value of the user group and members' ratings of the achievement of the group in relation to its three key formal objectives. Group functioning was assessed according to three dimensions. The first, *participation*, was measured in terms of attendance at meetings, distribution of benefits and involvement in decision-making. The measurement criteria for the second dimension, *transparency*, were information availability and awareness of group transactions. The third dimension, *governance and accountability*, was assessed through analysis of members' knowledge of

the rules governing group business, selection of representatives and accountability of representatives.

1.4. The principal findings suggest that, in the view of most members, community level user groups are valuable and generally achieve their formal objectives. What is more, there is little evidence to suggest that benefits are being appropriated by any one group. Members' perceptions of the purpose of their groups, however, differs from those of project designers and implementers. Significantly, members tend to be content if they are receiving immediate personal benefits from the project. They demonstrate low levels of ownership of the user group and little interest in, or commitment to, the group as a mechanism for managing cooperation beyond the end of the project. Attendance at meetings is low, and awareness of meetings, group finances and the rules of operation is very limited. Indicators of transparency, governance and accountability are generally far lower than would be expected for all three projects. In addition, the participation of women in meetings and as representatives is rare; and participation is highest among those who are already well connected in that they are involved in extensive social capital networks.

1.5. These findings suggest that based on the views of the interviewed user groups are working well, within short term, in the delivery of project benefits. However, the prospects for the groups in these three projects for achieving the tacit goals of broadening participation, improving equity, and fostering local "ownership," are doubtful. This finding may be interpreted as indicating that the existing approach to organizing local management groups does not sufficiently account for the fact that many rural communities are not homogeneous and that not all members share similar interests. Villages are commonly divided by factionalism, hierarchy and exploitative relations between rich and poor, and these divisions and conflicts may interfere with the achievement of the inclusiveness and broad participation goals that underlie the move to decentralize management and decision-making to the local level. It is unlikely that the establishment or formalization of a local management group by outsiders will be enough to overcome deep-seated local conflicts and exclusionary traditions; particularly if these organizations operate independently of other social, political and economic institutions in the community.

1.6. Overall, the study's results raise the question of whether user groups, as currently designed and implemented, can achieve long-term sustainability as independent organizational entities. User group members are habituated, through past experience with various government and NGO initiatives, to let final responsibility for their management to rest with an external backstop. If user groups are to continue after the life of the project, either the backstopping function must either be transferred to another implementing agency (such as local government Panchayati Raj Institutions), or resource management projects must be re-designed to accommodate the building of local initiative, responsibility and accountability.

1.7. In addition, it is not clear in every case that the sustainability of benefits is dependent upon the sustainability of the user group. In some cases, benefits could continue to flow

even if the group were disbanded; and low attendance at meetings could reflect the fact that users do not believe continued benefits to be dependent on the continued activities of the group. The perceived high achievement of project objectives, in fact, is likely to be attributable to factors, such as the capabilities and commitment of project staff, rather than effective functioning of the user group.

1.8. User groups, then, are not necessarily an essential instrument for the local management of every natural resource. Management requirements differ according to the nature of the resource to be managed, and communities differ in economic, geographic, social and cultural terms. A single model of resource management, therefore, is unlikely to be successful in every case. Instead, it is necessary to develop a more flexible, sophisticated and nuanced approach to the mechanisms and processes associated with local resource management.

1. INTRODUCTION

Decentralized implementation and community participation in management have become common features of development initiatives over the past 15 years. During this period, dissatisfaction with centralized, top-down management and decision-making structures led the development community to initiate a redistribution of authority from administrative government to primary stakeholders. More localized control of the development process has been viewed as an opportunity to improve accountability, to broaden participation in decision-making, and to ensure democratic governance. Successful decentralization of power, however, requires the presence and effective operation of organizational mechanisms at the local level. In World Bank aided projects in India these tend to be either user groups¹ or, more recently, local elected government bodies. While work with local levels of elected government is nascent, there is a sufficient history with community level user-groups to permit reflection on their anticipated and actual roles.² A number of critical questions about these local organizations can now be posed:

- What are user groups expected to do?
- How well do they actually perform?? Do they contribute to the achievement of project objectives as well as those of the users themselves?
- Do they, community level and therefore usually heterogeneous groups, include the disadvantaged and lead to an equitable distribution of benefits?
- Do they strengthen participants' ownership of, or commitment to, project goals and objectives?
- What are the implications of this for operational work?

There is a growing tendency among development planners to view community organizations -- such as user groups -- as a general solution to the question of how natural resources should be managed at the local level. Nearly 40 percent of current -- and a growing number of pipeline -- projects in the World Bank's current lending portfolio in India now depend upon the successful performance of such local organizations. Reports on how these community level user-groups have actually performed have been mixed and conflicting, however. There is, therefore, an urgent need within the World Bank for reliable information that can offer staff and client team insights on the effectiveness of user groups. This study constituted a response to this need. Its objectives were simple, to:

- enhance understanding of current levels of inclusiveness and effectiveness (measured against the objectives of different stakeholders) of the community level groups in World Bank aided rural development projects, through benchmarking members' views of key dimensions of group performance; and,

¹ In this report user groups are defined as local, membership based, project induced organizations. The goal of these organizations is to facilitate the local management of a collective resource by those who utilize and receive benefits from it.

² The user groups studied in this research were all settlement or system (in the case of irrigation water) level groups.

- draw out, from this perceptual information base, issues critical to current support and future design of user groups.

Field work for the study was undertaken between in March and June 2000 in three states. In each state a different project concerned with collective management of a natural resource was studied -- in Uttar Pradesh, the Sodic Lands Reclamation Project; in Madhya Pradesh, the Forestry Project; and in Andhra Pradesh, the Irrigation Component of the Economic Restructuring Program. These projects' settings represent a range of conditions typical of those encountered by the wide array of World Bank-assisted projects in India which currently rely on community level users groups for local resource management.³

Projects embracing the concept that community based organizations are key in efforts to reduce poverty and increase growth with equity are commonly based on hypotheses that:

- stakeholder participation is critical to the efficacy of projects;
- equitable inclusion is not only fair but a prerequisite for poverty alleviation;
- interest or user groups are the most appropriate means to this end; and,
- that these groups can be relatively easily established and maintained.

This study did not set out to judge the overall success of any of the projects studied or attempt to directly examine a project's impact on poverty. Rather, it sought to examine the two aspects of community level user groups – effectiveness and inclusiveness – that are central to the claims and counter claims made about the performance of such organizations. Thus, the methodology was designed to draw out generic issues and while project specific data are presented and are critical to the analysis, they may not reflect the performance of community level user groups in any project as a whole. The study did not attempt a comparative analysis of user-groups within and outside of World Bank aided projects, or of community level user groups versus other forms of local organization or project delivery systems. The analysis simply endeavored to ascertain how community level user groups are currently performing according to members' perceptions of attributes generally considered important to effectiveness, equity and sustainability outcomes. Various dimensions of effectiveness – including whether project objectives were achieved, whether members were satisfied with results and whether benefits were equitably distributed – were analyzed in order to assess the quality of -- and reasons for -- levels of performance in each of the three projects. An examination of inclusion enabled the research team to assess whether or not empowerment and poverty orientation were being achieved, and what aspects of a community level user group are related to different participation rates and receipt of benefits. The future survival of these organizations was assessed through analysis of elements considered key to well functioning, democratic and sustainable organization – transparency, governance and accountability.

³ The community can be defined by a settlement, or the boundaries of a resource use system – such as an irrigation or tank cascade system.

At its conclusion, the study has shed light on the current performance of community level user groups in three typical World Bank-aided projects, and it has uncovered some explanations of the factors associated with different levels of performance. Findings suggest that there is variation among user groups and they should not be approached as a single, uniform entity. Different types of resources, require very different levels of ongoing effort on the part of users, and different social contexts will influence the degree of external support needed to establish equitable group governance. Management of resources whose benefits to users depend upon constant routine maintenance are likely to be more time-consuming than is management of a resource that is largely self-maintaining. The results of this study raises, but cannot answer, the question of whether the user group is an equally appropriate solution to the management of all types of resources in all settings. It is suggested that there is a need to unpack ideas about user groups and to approach their use and development within projects in a more sophisticated and nuanced manner. The study results also indicate a need to be clearer about group objectives, to be more pragmatic in expectations of how such local organizations function, and to be more realistic about what they can accomplish. In particular, the prevailing tendency to anticipate members' full participation in all aspects of a community level user-group's life needs careful examination and more down-to-earth assessments of what can be achieved in terms of empowering disadvantaged people are required.

2. BACKGROUND

2.1 Conceptual Framework

Natural resource management interventions increasingly depend on community based organizations for implementation. The belief that communities are best placed to manage effective, equitable and sustainable development has been a recurrent feature of development discourse and policy change over the last fifteen years (Cleaver 1999; Schneider 1999). In India, the 1992 Constitutional Amendments and subsequent State Acts created policy environments supportive of decentralized governance and management of development activities. The Indian government's introduction of joint forest management and participatory irrigation management policies and action represent further important milestones in the devolution of power and efforts to hand over management of resources and their development to villagers.

A number of advantages are expected to accrue from the transfer of management responsibility to local users. For example, user groups are expected to be a cost-effective approach to local resource management. Implementing agents are sometimes accused of creating these local organizations in an effort to reduce numbers of local staff and replace them with unpaid local actors. This may partly explain the willingness of government staff to "hand over" management to local people, but there is also a strong and persuasive body of information indicating that user groups, as local level mechanisms supporting cooperation and collective action, improve and sustain the benefits of development interventions. Participation of local users in the management of a resource or development opportunity has been consistently related to improved efficiency, equity and sustainability (Adato et. al. 1999; Grootaert, 1999; Kessides, 1997; Lam, 1998; Narayan, 2000; Ostrom, 1993; Ravallion, 1999; Tang, 1992; Uphoff et al. 1998). However, shifting project management and implementation from state bureaucracies to local people requires the presence of effective local level organizations, and there is varying opinion on what local organizations or user groups require to achieve effectiveness.

Among those attempting to identify these requirements, two groups of theorists have been particularly influential in determining the principles of local organizational design and support.⁴ Although both approaches share common principals, in so far as both view networks and groups as key to solving collective action problems, and both focus on the analysis of norms and sanctions, there are nevertheless differences between them. One, common property resources theory, seeks to understand the institutional and economic conditions under which people can collaborate to manage resources (see Box 2.1). The resulting body of theory suggests that externally invoked local institutions can successfully manage resources as long as the right institutional mechanisms and economic incentives are in place. Another collection of empirical and theoretical work argues that the capacity of local organisations to act as effective agents of change and resource managers is dependent on existing or created stocks of social capital (see Box 2.2). The

⁴ See Annex 1 for an annotated review of key literature.

implications for development practice are that interventions must seek to harness, build on or develop social capital if they are to make a local organization robust and effective.

Both bodies of thought were influential in the design of the study reported on here. However, both experience and emerging literature suggest that neither of these two approaches fully explains the success or failure of local resource management organizations. It appears that, even when every effort had been made to create appropriate institutional mechanisms and adequate economic incentives, or when there appeared to be the 'right mix' of local institutions or prevalence of social capital, local organizations have not always been as effective as anticipated.

Box 2.1 Common Property Resources

Common property resource (CPR) theory is to a large extent concerned with explaining under what conditions people are likely to embark on effective collective action for natural resource management. CPR management is perceived as beset by problems of subtractability (where the welfare of one user can be undermined by another) and non-excludability (where the costs of excluding users is too high to be controlled). CPR theory thus focuses on institutional dimensions such as costs, benefits, boundaries, norms, and sanctions against free-riders and demonstrates that people can co-operate in resource management as long as they have a rationale for doing so (e.g. Bromley 1992; Ostrom, 1990, 1992; Ostrom *et al* 1994; Wade 1998). Much of the CPR thinking is embedded in the idea that people are rational beings who are continuously involved in a process of crafting ' . . . rules to support collective action that produces public goods and avoids 'tragedy of the commons'' (Ostrom 1998:1).

Box 2.2 Social Capital

The set of ideas which focus on the effectiveness and capacity of local organizations – including, but not limited to, their ability to manage natural resources – is one which stresses the importance of social capital. Social capital has been defined in many different ways (see e.g. Carney 1998; Coleman 1990; Putnam 1995). A commonly accepted definition of social capital is " a stock of relationships", in which people invest and from which certain benefits flow. Petty and Ward (*ibid.* 2001), usefully break down the concept into its component parts. They view social capital as based on reciprocity and exchanges, common rules, norms and sanctions, connectedness, networks and groups. They suggest that the degree of social capital possessed by a community influences its potential for collective action, and ultimately resource management. There are now many examples of how presence of high social capital within communities has enhanced resource management, made resource use more efficient and increased production (Bebbington 1997; Petty and Ward, 2001).

Considerable evidence suggests that community-based organisations are often unable to achieve fundamental development goals related to the inclusion of disparate members of a local community (Agrawal and Gibson 1999; Watson *et. al.* 1997; World Bank 1996). The design and implementation of development projects are often based on the assumption that all members of a community share common interests. In the context of an Indian village, the interests of members of rival factions or of different caste groups and economic strata

are likely to differ or even conflict. The failure to account for the diverse interests that actually exist within a given community can lead to the creation of organizations that are short-lived, exclusionary or divided by discord.

As Poffenberger and McGean (1996) point out, externally framed rules and regulations are often inadequate to ensure democracy and effectiveness in organizations operating at a local level. Numerous studies, under what might be considered a third -- the divergent interests -- approach, point to the need to unpack communities and understand how community-based projects interweave with an existing and changing community context that impinges upon effectiveness and inclusiveness of development initiatives. Many studies illustrate how externally induced resource management projects tend to play into the hands of dominant groups or people of the community (Agarwal 1998; Leach *et al* 1997; Mehta 1997; Mosse 1997). Gender relations in particular have not been effectively addressed in resource management interventions, and deep-rooted social and economic conventions continue to hinder women's effective inclusion in resource management institutions (Agarwal 1998; Meinzen-Dick and Zwarteven1997). Development projects need to account for and segregate the diverse interests, needs and priorities within communities that may prevail vis-à-vis resource management (Ahluwalia 1997) in order to strengthen the capacity of the poor and disadvantaged to control resources (Beck and Nesmith 2000). For example, separate organizations for women or landless laborers can provide a vehicle for the articulation of the specific needs and interests of these disadvantaged groups.

The design of this study therefore drew upon both the common property and social capital approaches, but also sought to explore the effect that local social and power dynamics played in the functioning of local organizations and the manner in which these organizations managed resources. This allowed for the testing of the hypothesis that user groups are settings for more general and on-going struggles in rural communities in India and that these competing interests influence a user group's effectiveness and inclusiveness.

2.2 Analytic Focus

According to common property resources theory, user groups, if properly designed to maximise economic benefits and to host appropriate rules, should function effectively. Social capital theorists suggest that networks and associations will have a clear impact on performance. The literature on divergent interests emphasizes the idea that social and economic differentiation within a community will deeply affect the manner in which organizational rules are used and thus influence access to and use of both economic opportunity and social capital markets.

This study centers these concerns in a simple and focussed analysis of user group members' assessments of (1) *group achievements*, and (2) *group functioning*. Data

collection on members'⁵ and village's characteristics allowed analysis of relative inclusion or exclusion.

The analysis of *group achievement* was based purely on perceptions of group members. Two measures of achievement were utilized:

1. members' rating of the value of the user group
2. members' ratings of the achievement of user groups in relation to the group's three key formal objectives.⁶

Members' rating of the value of the group is assumed to reflect the degree to which members' regard the group and its activities as relevant and useful to their lives and development. However, these valuations are insufficient in themselves to tell us if judgements can be attributed to the effective functioning of self-managed user-groups as perceived in project documentation, or simply to the presence of the project. Arguments for community participation in resource management are frequently based on a belief that it increases local ownership. A sense of ownership is assumed to signify individual and collective identification with the objectives of the activity undertaken. Analysis of the consonance between formal and member's objectives enabled conclusions to be drawn about the degree to which members identified with the group's formal objectives.

The two measures of achievement used in this study allowed analysis and comparison of members' and project implementers' views of the purpose and performance of user groups. During analysis, all data were disaggregated to assess patterns of (a) perceptions across social and economic grouping of members, and (b) differences according to characteristics of a user group's location.

Group functioning was examined in three dimensions: participation, transparency and governance & accountability.

Participation in project management and implementation by a wide variety of stakeholders is assumed to contribute to the achievement of development goals. It has been shown to improve project outcomes in a number of ways. It fosters efficiency, by limiting wastage through decentralized control of resource allocation and use; and, when villagers play a key decision making role, their participation improves targeting and hence effectiveness. Local participation has also been demonstrated to enhance equity, by breaking the nexus between traditional elites and conventional project delivery systems; and to improve coverage, since local communities are operating under fewer personnel and resource constraints than are the government or implementing agency staff from whom they take control. More equivocally, broad local participation fosters empowerment – although this is a term conditioned by sector context and definition. If empowerment is defined as all people having an equal capability to access and use development opportunities, then

⁵ Note that references to, and analysis of, social differentiation include differentiation by gender.

⁶ Formal objectives refer to those defined by project designers and implementers.

projects would need to address those factors which undermine capability. User groups, which have control only over their internal rules, may not be able to control for the culturally derived rules which surround and affect user group functioning.

Participation is important to measure but varies in nature and quality – ranging from simple consultation to complete control over resources and action. This study examined three aspects of participation:

1. attendance of meetings
2. receipt of benefits⁷
3. involvement in group decision making.

Again, data on each aspect of participation were disaggregated according to social and economic group, thus providing information on inclusion and equity.

Transparency is considered an essential element of a well functioning organization or group. Transparency increases an individual's ability to know what and how decisions are made by the group and whether or not the rules of the group are being followed.

Awareness of the rules of the game and how it is being played by those involved in the same venture is critical in creating trust among group members. Transparency is thus an important element of cooperation.

Transparency was measured in this study in two ways, by looking at:

1. information availability
2. awareness of group transactions.

Tests were run to see if results varied according to social and economic characteristics of a respondent or location.

Governance and Accountability. As the final means of ensuring that the rules of the collective game are followed, accountability is perhaps the most critical aspect of any organization. In a situation where group members have limited understanding of transactions and only a partial knowledge of the group's operations, the opportunities for mismanagement and corruption are greatly increased. However, while poor transparency may reduce the probability of trust between members – and hence reduce the likelihood of cooperation – it can be counterbalanced by the presence, and members' understanding of, good rules of governance and accountability. If effective rules for ensuring accountability can offer the group protection against corruption and misappropriation by its representatives, then regular scrutiny of operations by all members may be unnecessary. Special care must be taken in the design process, however, to ensure that such rules are in place and work.

Governance and accountability were assessed through analysis of members' knowledge of rules for:

⁷ Receipt of benefits is an indicator of participation in outcomes. While the nature of this indicator is thus different from attendance and involvement in decision making (which can be hypothesised as determinants of outcomes), it remains valid for the purposes of this enquiry.

1. governing group business
2. selecting representatives
3. holding representatives accountable.

Again, social and economic differentiation of results were accounted for.

2.3 Projects Studied

Uttar Pradesh Sodic Lands Reclamation II Project

The project

Declining land productivity due to sodification of soils is a serious problem for agriculture in the state of Uttar Pradesh where about 10 % of the total cultivable area is made up of sodic wastelands (World Bank 1998a). The Uttar Pradesh Sodic Lands Reclamation Project II builds on previous experiences in Uttar Pradesh to reclaim sodic lands and it aims to assist the state in consolidating past and on-going efforts. The project implementation period is six years, from 1999 to 2005. The total cost of the project is US\$ 286.6 million out of which the World Bank provides a credit of US\$ 194.1 million. The project spreads over ten districts. It aims to cover a total area of 150,000 ha and to benefit approximately 375,000 families (World Bank 1998a).

The overall objective of the project are: to reclaim the sodic land in selected areas of the state; to increase the production of food grains; and, to improve people's livelihoods by addressing institutional, social, environmental as well as technical issues. More specifically, the project is made up of seven components: (i) land reclamation and on-farm development, (ii) main drain remodeling and maintenance, (iii) technology dissemination system, (iv) upgradation of farm to market roads, (v) human resource development and institutional capacity building, (vi) adaptive research, and (vii) project management (World Bank 1998a).

The implementing agency is the Uttar Pradesh Bhumi Sudar Nigam (UPBSN) which is a registered corporation of the Government of Uttar Pradesh established in 1978 to take up land development work in the State of Uttar Pradesh. At the district level there is a district level organizational structure made up of government staff deputed to the UPBSN and an NGO that works in collaboration with the UPBSN staff.

This project induces a number of local organizations. Apart from the development of Water User Groups (WUGs) and Site Implementation Committees (SICs) the project has also established a number of Self Help Groups as a means to facilitate economic development and promotion of social capital in the villages. In order to enhance the participation of women, there has in particular been an emphasis on Self Help Groups for women. However, in terms of natural resource management WUGs and SICs, play the key roles.

Water User Group

At the site or village level, the project establishes Water User Groups (WUGs) comprising 10-15 farmers. Membership in the WUG is based on possession of sodic lands. As a means of improving the productivity of the land, WUG members receive agricultural inputs in the form of chemical amendments, fertilizers, and paddy, wheat and *dhaincha* (a green manure crop) seeds. Each village has multiple WUGs each of which centers on the use and maintenance of a water pump. There can be as many as 20 groups in one village.

The tasks performed by the WUG include: maintenance of the pump-set and related irrigation activities; ensuring that grants received from the project for leaching and irrigation are distributed among the members; deciding on water rates to be charged to members; assisting UPBSN staff with collecting soil samples and thus classification of land to be taken up under the project; preparing and proposing plans to the Site Implementation Committee (see below) for construction and management of drains.

Once a year, the members of the group choose one person to be their leader. The WUG leader maintains the group records (irrigation, financial, expenses, minutes of meetings etc.). During the project the WUGs are required to meet once in a month. After completion of the project, i.e. three years in any one location, the group is required to meet quarterly.

Site Implementation Committee (SIC)

All the members of the WUGs are part of a Site Implementation Committee (SIC) which is a general body of the village. Each household participating in the project has one male and one female representative in the SIC. The village Pradhan (head of Gram Panchayat) is the ex-officio Chairperson of the SIC and the local Assistant Manager of the UPBSN acts as the Member-Secretary.⁸

The SIC is “the focal point of decision making and implementation of the land reclamation plan” (World Bank 1998a, Annex 2, page 3), and responsible particularly for addressing inter-WUG issues. The SIC is intended to “serve as a forum for beneficiaries and project and village level functionaries to review project implementation activities as well as for technology dissemination, learning and involving beneficiaries in taking and implementing decisions made regarding overall project management at grassroots level”, (World Bank, 1998a. Annex 2, Attachment 1, page 7). As of writing, SICs are unregistered bodies. The SIC is responsible for the approval and oversight of the implementation of a Site Implementation Plan (SIP) which is a micro-plan containing all the activities that are to be carried out in the village as a part of the land reclamation process. The SIP is signed by all parties and, based on the SIP, each beneficiary given a letter detailing the inputs they are to

⁸ If all the members of SIC agree they may elect another Chairperson than the Gram Pradhan.

receive and the labor they are to contribute. During project implementation, the SIC receives financial inputs from the project for maintenance and management of link drains. The SIC is subsequently responsible for post project maintenance of the assets (link drains and any equipment purchased, such as sprayers) developed under the project for which it is expected to generate a fund. The project seeks to sustain the SIC for continued performance of these functions, by establishing it as a sub-committee of the Gram Panchayat.

A core team – the Executive Body of the SIC – is responsible for monitoring and evaluation of the reclamation work undertaken by WUGs and any other activities which the SIC may take on. The core team is constituted from the leaders of the Water Users Groups (WUGs), a Mitra Kisan (MK -- male) and a Mahila Mitra Kisan (MMK -- female) who are villagers identified by the SIC to act as animators and as a link between the villagers and the project. The villagers elect these individuals by voting, usually in an open meeting. This core group will change if WUGs change leadership, but the MK and MMK usually remain throughout the project period. The SIC is required to meet twice a month during the time when the project is being implemented in the area. After the withdrawal of the project, the SIC is required to meet quarterly. The SIC has to maintain financial records, minutes of meetings, and records relating to maintenance and management of drains. There are few additional formal rules of the SIC. They are encouraged to develop their own rules and regulations regarding decision-making, change of leadership, meetings and dissemination of information.

Selection of user group

For the purpose of this study the SIC was chosen as the local organization to be investigated. Although the WUG is an important group in project implementation, and also warrants study, it would have been methodologically inappropriate to assess WUGs on the same grounds and using the same questions as those posed to members and representatives of community level user groups in other projects. This study sought to understand how community level user groups were performing. The SIC is responsible for community level collective planning and cooperative maintenance of the activities associated with management of a natural resource. WUGs deal with very small scale levels of cooperation, involving up to five farmers, who frequently monetize their use of resources and hence collective relationship. The SIC is similar in structure and mandate to those of the other community level organizations studied in this research. In addition, Sodic Soils project documentation envisages this organization as the one which will ensure long-term oversight of the collective action needed to manage individualized interests represented by WUGs.

Madhya Pradesh Forestry Project

The overall objective of the Madhya Pradesh Forestry Project is to assist the Government of Madhya Pradesh with implementing its strategy for developing the forestry sector in the state. The sub-objectives of the project are to: develop human resources; improve

management procedures; improve planning of forestry at a macro scale; increase productivity and forest cover by seeking people's participation in forest management, specifically considering the interests of tribals and other disadvantaged groups; improve the incentive structure for management of forests; and enhance conservation of biodiversity

The project covered an initial phase of four years between 1995 and 1999). This phase utilized a total budget of US\$ 67.3 million (US\$ 58 million credit from IDA and US\$ 9.3 million from GOI) (World Bank 1995).

The Government of Madhya Pradesh strategy for developing its forestry sector is a response to the National Forest Policy of 1988 through which the central government decided to lay emphasis on protection of forests not only out of environmental concerns, but also to meet people's primary forest-based requirements. In addition to the new forest policy, the central government issued an important circular in 1990 which stated that local communities are to be regarded as partners in protecting forests and that primary importance is to be given to the development of forests to cater to local livelihood needs. The concept of Joint Forest Management (JFM), issued first in 1991 and then revised in 1995 and 2000, provided the basis for operationalizing the shifts in central policy. JFM is an arrangement through which local communities are made responsible for forest protection and management and become entitled to a share in usufructs from the forest.

Three types of village committees are formed under JFM in Madhya Pradesh: (i) Village Forest Committees (VFCs) in degraded and low productive forest areas (ii) Forest Protection Committees (FPCs) in dense forest areas, and (iii) Eco-development Committees in national parks and sanctuaries (Government of Madhya Pradesh 2000). VFCs and FPCs are the user groups included in this study.

As a means of reducing pressure on forest land and to encourage villagers to protect the forest the Madhya Pradesh Forestry Project contains a Village Resource Development Program (VRDP). VRDP aims to provide alternative income sources for the villagers by supporting, for example, irrigation facilities, schools, community buildings, soils and water conservation measures, and training in income generation activities (World Bank 1995).

VFCs and FPCs are constituted on the basis of a village or hamlet(s) depending on what is most appropriate to existing forms of local organization. The committees are registered with the Divisional Forest Officer (DFO). A Memorandum of Understanding is signed between the Forest Department and the committee.

All adult residents are members of the general body of the committee. Each committee is supposed to meet at least once in three months.

The executive committee of the VFC or FPC can comprise 11 to 21 members. The villagers elect a chairperson and a vice-chairperson. One of these posts has to be held by a

woman. It is recommended that representation of scheduled castes, scheduled tribes and other backward castes is made proportional to their size of the population in the settlement. A minimum of 33 % should be women. There should be a minimum of two landless families. All representatives of the Panchayat residing in the village should be ex-officio members. The concerned Beat guard or Forester is the ex-officio secretary of the executive committee. The term of the executive committee is two years (apart from ex-officio members).

The presence of 50% of the executive committee and 30% of the general body is required for a quorum. After a committee has been constituted, a microplan is prepared jointly by the Forest Department and the concerned committee. This contains strategies for management of the forest area allocated to the committee as well as plans for village resource development more generally.

After the constitution of a committee the villagers gain certain rights (Government of Madhya Pradesh 2000). The most salient are listed below:

- All families are annually entitled to royalty free nistar (tree produce to meet primary livelihood needs).
- FPCs are entitled to 10 % of the final felling of bamboo or timber coupes (after deduction of transport and felling costs).
- VFCs are entitled to 30 % of the final felling of bamboo or timber coupes (after deduction of transport and felling costs).
- Villagers have a right to collect all non-nationalized Minor Forest Produce.
- The general body can decide to exclude a member (villager) from his/her right to nistar if he/she violates the rules of the committee or commits a forest offence.

Andhra Pradesh Economic Restructuring Program - Irrigation Component

The Andhra Pradesh Economic Restructuring Program is a comprehensive reform program in the state of Andhra Pradesh aiming to improve living conditions for the poor through interventions in the health, education and infrastructure sector along with reforms in public enterprise and fiscal policies.

Irrigation Rehabilitation and Maintenance is one of the six main components of the project. The goal of the interventions in the irrigation sector is to enhance the sustainability of irrigation through farmers' participation in irrigation planning, management and cost recovery, thereby increasing agricultural production in the state. The total cost of this component would be US\$ 282.3 million which includes support to physical improvements of the irrigation schemes as well as institutional and human resource development over a period of five years, i.e. 1999 to 2004 (World Bank 1998b).

The implementation of the irrigation component is linked to a sector-wide reform of irrigation legislated by the Government of Andhra Pradesh in 1997. Andhra Pradesh is

heavily dependent on irrigation for its agricultural production. However, the systems developed for irrigation by the state government have gradually deteriorated and in some areas even become defunct. The reasons attributed to this decline can broadly be referred to as inadequate financial allocation toward maintenance, inequitable distribution and sharing of water, the problems of water supply to tailend areas, and the overarching lack of farmers' participation in irrigation management (Oblitas and Peter 1999).

The Government of Andhra Pradesh made the assessment that the only means to rectify the problems of irrigation would be to embark upon reforms through which farmers are entrusted with full management and maintenance responsibilities of the irrigation systems. Subsequently, the Andhra Pradesh Farmers' Management of Irrigation Systems Act, was passed in April 1997.⁹

The Act provides a platform for the constitution of Farmers' Organizations (FOs) as independent legal entities

In accordance with the Act, the Water Users' Association (WUA) constitutes the smallest and basic unit of an irrigation scheme and is made up of a hydrological unit considered viable for irrigation. Each WUA manages between 100 to 2,000 ha of irrigated area. The operational area of a WUA is further segregated hydrologically into four to ten Territorial Constituencies (TCs) as a means to ensure widespread representation of farmers.

The organizational structure of the irrigation system depends on the size of the command area. Minor irrigation projects, under which the command area covers less than 2,000 ha, are managed by WUAs as a one-tier structure. Medium irrigation schemes cover a command area of 2,000 to 10,000 ha and are organized into a two-tier structure of WUAs and a Distributive Committee (DC). Major irrigation schemes, where the command area is above 10,000 ha, are organized into a three-tier system of WUAs, DCs and a Project Committee (PC). The purpose of the DCs and PCs is to federate WUAs in larger irrigation areas which require irrigation management beyond WUAs.¹⁰

The main objectives of the WUAs are to ensure distribution of water among the users, to maintain the irrigation system, and to enhance agricultural production. The main functions of the WUAs (and other tiers) are to prepare and implement plans for improving the distribution of water, regulate water, maintain accounts, carry out social audits, resolve conflicts that may arise over water, assist the Revenue Department in collection of water cess, and liaise with both the Irrigation and Agriculture Department in order to enhance agriculture.

WUAs are constituted through elections. Landowners and tenants (defined as landholders in the Act) recorded in the Record of Rights within the boundaries of a WUA are the

⁹ There were some Amendments to the Act in 1998 (Government of Andhra Pradesh, 1998).

¹⁰ Further details of DCs and PCs are not provided since this study focuses on WUAs. However, their functions, obligations and procedural aspects are similar to those of WUAs.

members and have a right to vote. Each voter casts two votes, one for the representative of their TC and one for the President of the WUA. The TC members and the President form the Managing Committee (MC) of the WUA. The general body of the WUA comprises all the water users who are landholders within the area of a WUA. In June 1997 elections were held for a total 10, 292 WUAs all over Andhra Pradesh.

The term of the Managing Committee and its representatives is five years. There is, however, a right of recall of the elected representatives. A motion for recall of any of the representatives must be signed by at least one third of the total membership of the WUA. Subsequently, a representative can be removed if the majority of the members present at a specially called meeting vote in favor removal. However, a motion of recall cannot be made until one year after the election of a representative (Government of Andhra Pradesh 1997). All decisions related to the management of the irrigation system are to be approved by the General Body of the WUA. The General Body has to meet at least twice a year. The quorum for a general body meeting is one third of the members. Meetings can be postponed if there is no quorum. The subsequent meeting requires no quorum and resolutions can be passed by the majority of the members present. The Managing Committee has to execute the decisions of the General Body (Government of Andhra Pradesh 1997).¹¹

Each WUA has to maintain a total of seven main registers. The records are open to all members. A Social audit is conducted at the end of each crop season. This is to be carried out by displaying written notices regarding funds received, works carried out and related benefits. Moreover, whenever physical work is proposed all details are to be displayed to the members. The WUA is required to undertake a financial audit at the end of each financial year. WUAs are currently receiving funds from the government to carry out the physical works, but also have the freedom to seek financial assistance from other sources (Government of Andhra Pradesh 1997).

The role of the Irrigation and Command Area Development Department has changed dramatically with this Act. Their current formal power vis-à-vis WUAs is basically to authorize payments. Lower level staff have been assigned as technical advisors to specific WUAs.

2.4 Methodology

The three projects studied were selected on the basis of the presence of a significant number of established project-induced community level, local organizations responsible for cooperation and collective management of a natural resource. In each state, districts for the location of the study were purposively chosen in consultation with the concerned government departments. In Andhra Pradesh and Madhya Pradesh, where the chosen

¹¹ There is also a provision for a WUAs to constitute sub-committees to implement its various functions.

projects are implemented statewide, two districts were chosen per state taking into account the diversity in social and economic structure between regions.

In each district 20 villages were randomly chosen providing a total sample of 120 villages.¹² In each of the selected villages 20 individuals were sampled using poverty ranking (see Annex 2, Field Guidelines for a description of the technique).

The study was based on an extensive survey approach which incorporated techniques allowing in-depth and interactive exploration of certain areas of enquiry. Five instruments were used for data collection:

1. a village information questionnaire, through which information was gathered during open group discussion (total 120 villages);
2. an individual questionnaire for user group members and representatives (2400 respondents);¹³
3. a project staff questionnaire, applied to 3 staff in each district (total of 15 interviews)¹⁴;
4. a financial transactions questionnaire, applied to the record keeper of every project group (total 120);¹⁵
5. a focus group discussion, undertaken as a semi-structured exercise with a pre-determined minimum data requirement. Four group discussions were undertaken in five villages in each district. (Total 100).

In addition, study teams prepared summaries of each village, recording the information they considered important in setting the context of the enquiry or in providing explanations of issues not captured in the formal instruments. All instruments and techniques were pre-tested in Rae Bareilly and Bilaspur. The questionnaires, checklists and recording formats are presented in Annex 3.

Data collection was carried out between March and June 2000 by trained teams of local enumerators (usually four in number) and researchers (usually one) under the guidance of a team leader from each state. Tasks were divided according to experience and ability, with enumerators administering the questionnaires, researchers and team leaders managing focus group discussions, team leaders interviewing project staff and team leaders drawing up the village summaries in consultation with their team. Each team spent approximately two days in each village.

¹² In Andhra Pradesh, Water Users Associations were the local organizations under study. Here the method for sampling was a random sample of WUAS in major, medium and minor irrigation schemes in proportion with the percentage of irrigated area of the district covered by each type of irrigation scheme.

¹³ In Andhra Pradesh, additional quantitative data for Karimnagar district were collected gratis by an organization currently involved in implementing the Andhra Pradesh Economic Restructuring Program Irrigation Component. This increased the number of individuals interviewed. Data from Karimnagar have only been used for analysis at the individual level, not group or hamlet/village level.

¹⁴ Records of interviews of project staff from one district of AP were not used.

¹⁵ The financial records could not be looked into in all villages as the concerned persons were not always available or the records were not available in the village.

3. FINDINGS

This study set out to assess whether or not user groups in three World Bank aided projects were achieving what they set out to do and whether they were performing in the expected manner. These questions are examined in the following section through an analysis of:

- Group members’ assessment of *group achievements*,
- Three dimensions of *group functioning*: participation, transparency and accountability.

Analysis of inclusion of different social and economic groups cross-cuts each area of enquiry.

3.1 Overall Performance

Respondents were asked to rank the overall performance of the user group to which they belonged. As Table 3.1 illustrates, nearly 50 percent of members of each user group (Site Implementation Committee (SIC), Village Forest Committee (VFC)/Forest Protection Committee (FPC) and Water User Associations (WUA))¹⁶ value the overall performance of the user group highly, while only 12 percent or less claim that the group performed poorly.

Table 3.1 Respondents’ Valuation of Overall Performance of User Group (%)

	Uttar Pradesh	Madhya Pradesh	Andhra Pradesh
	SIC	FC	WUA
Very Good	49	49	50
Satisfactory	29	38	32
Poor	12	7	3
Don’t know	11	7	15

Uttar Pradesh (Uttar Pradesh), Madhya Pradesh (Madhya Pradesh), Andhra Pradesh (Andhra Pradesh)
Source: Individual Questionnaire

Focus group discussions (Box 3.1 below) revealed some of the reasons for these positive evaluations.

Box 3.1 Members Reasons for Positive Evaluations of User Groups

In Uttar Pradesh, reasons for high valuation of SICs included “ there were no similar activities to those of the SIC existing prior to the project...inputs have been distributed and the quality of sodic lands, and hence production, has improved”.

¹⁶ Site Implementation Committee, Uttar Pradesh; Village Forest Committee or Forest Protection Committee, Madhya Pradesh, collectively referred to in this report as Forest Committees (VFs); Water User Association, Andhra Pradesh. See Section 2 for an overview of the projects and roles of these user groups.

In Madhya Pradesh, discussions in Bilaspur and Kanker revealed “that in some places similar (forest protection) activities were existing before the formation of the FC...(however) the activities of the FC since the project are better than the earlier, more informal activities” and “Formation of the FCs has given legal status to forest protection carried out by villagers”.

In Andhra Pradesh, in Krishna district, “ prior to the creation of WUAs similar activities were undertaken in a number of villages. Participants in half the focus groups reported “ the WUA is better than the ‘old’ activities..works have now been initiated which have improved the irrigation system, people are motivated as management has been put in their hands, works are more needs based, bribes are no longer paid and representatives are now chosen by the people and not the Irrigation Department”. In Kurnool, “activities of the WUA are better than earlier informal work by villagers as work is regular and based on the entire system and financial assistance has made implementation more effective”.

Source: Focus Group Discussions

User groups are valued because they have improved resource management. In Andhra Pradesh and Madhya Pradesh where, prior to projects, indigenous organizations had carried out similar activities on an informal basis, formalization of collective management appears to have improved efficiency. In Uttar Pradesh, where villagers had no previous experience of reclaiming land, “the project has changed the perceptions of people in one substantial way – people now believe sodic lands can be treated” (Village Summaries, Uttar Pradesh State Team).

Are these valuations an accurate reflection of the performance of user-groups or of the project? How far can these positive impacts be attributed to the presence of self-managed user-groups as described in project documentation? We begin this analysis by looking at what user groups set out to do – what were their specific objectives and how far were these realized.

3.2 Achievement of formal objectives

First we examined the expectations of those designing and implementing the three projects, and then we elicited respondents’ views on the achievements of these projects. The team took user group objectives which were clear in project documentation, combined these with other objectives which appeared to be implicit in project documents, discussed these with state project teams and collaboratively derived three key formal user-group objectives for each project. The final list of key formal objectives can be found in Box 3.2.

Box 3.2 User Group Objectives

Uttar Pradesh Sodic Soils

1. Distribution of inputs (eg fertilizer)
2. SIP – Site Implementation Plan (local planning of the project, planning for and arrangements of distribution of inputs)
3. Maintenance of assets created under the project (link drains or items purchased for collective use such as sprayers)

Madhya Pradesh Forestry

1. Improved forest protection
2. Managing Village Development Activities
3. Equitable distribution of forest produce

Andhra Pradesh Irrigation

1. Effective maintenance of the irrigation system
2. Better water supply
3. Increased agricultural production

In each project respondents were asked to rank their perception of how well these formal objectives were met. Table 3.2 summarizes the findings.

Table 3.2 Percentage of Respondents Ranking Achievement of Formal Objectives

	Objective 1				Objective 2				Objective 3				Average			
	G	S	P	DK	G	S	P	DK	G	S	P	DK	G	S	P	DK
Uttar Pradesh	50	27	9	15	29	27	15	30	25	23	23	29	35	25	15	25
Madhya Pradesh	56	30	9	6	42	34	7	17	29	22	30	19	42	29	15	14
Andhra Pradesh	41	38	7	14	25	27	15	33	18	28	16	38	28	31	13	29
Average	49	32	8	12	32	29	12	27	24	24	23	29	35	28	14	22

Note: G-Good, S-Satisfactory, P-Poor, DK-Don't know
Source: Individual Questionnaire

Achievement varies across projects, but in aggregate, 35 percent of respondents felt the groups ability to meet formal objectives was good, 28 percent felt that formal objectives were achieved in a satisfactory manner and 14 percent felt the user group had not met its objectives. 22 percent of members felt they did not have enough knowledge to assess achievements. Nearly two thirds, therefore, hold positive views on the achievement of key objectives.

While positive, achievement of specific formal objectives was 20 percentage points lower than members' rating of the overall performance of user group's (63 percent good/satisfactory compared to 83 percent high or satisfactory). In addition, there is variation both between projects and in achievement of different objectives. In particular,

in all three States the second and third specified objectives of the groups were not as well met as the first. These less positive judgments suggest that the user-groups are not managing some aspects of collective action as anticipated.

- *In Uttar Pradesh* the pattern suggests that individual receipt of benefits is good but that on-going resource management by the SIC is less successful.
- *In Madhya Pradesh*, where levels of knowledge and general evaluations were higher overall, respondents expressed concern over equitable distribution of forest products – a key activity of the forest committees, and one which nearly half of all user group members felt was inadequately achieved.
- *In Andhra Pradesh*, while it was recognized that the irrigation system was more effectively maintained than in the past, barely over half of WUA members felt that this resulted in a greater and more reliable supply of irrigation water. In one of the two districts, there were focus group statements suggesting that this is because better off households were continuing to receive the bulk of the water. In another, water surplus/water supply was not perceived as a critical issue.

In addition, the percentage who felt unable to make a judgment on achievement of objectives two and three increased to an average of 30 percent for Uttar Pradesh, 18 percent in Madhya Pradesh and 36 percent in Andhra Pradesh. When combined with those ranking achievement of objectives low these figures indicate that, despite an overall feeling that user groups were doing a good job, there are a significant number of members who were either poorly informed or felt excluded from the benefits which should flow from particular objectives. Given traditional social patterns in rural India, it was hypothesized that the excluded or ill informed would be primarily members of disadvantaged, low-caste or low-income groups. The next questions we therefore addressed were, why do evaluations of group's achievement of specific formal objectives differ and, are certain types of people more likely to give negative or positive assessments?

To answer this we first looked at the reasons associated with different ratings of achievement of formal objectives. We then applied ordered probit regression analysis and examined summary statistics to assess if ratings were evenly spread across all respondents or if certain characteristics were associated with different responses. (see Annex 4 for a description of the regression techniques used and Annex 5 for regression results and summary statistics).¹⁷ Having asked “who” we next examined specific village level features to identify primary associations between these attributes and achievement of formal objectives.¹⁸ Because each project has different objectives and is set in a different social and economic milieu, findings of this part of the analysis are given below by state. Table 3.0 summarizes key statistics relating to our sample population in each state. Further details can be found in Annex 6.

¹⁷ Regressions were originally run with poverty, caste and education as independent variables. Concerns over colinearity were addressed by re-running regressions, without the poverty and education variables, and results proved robust to the original specification.

¹⁸ Primary associations are based on cross tabulations. Small sample sizes prevent regression analysis of village level data.

Table 3.0 Overview of Overview of Social and Economic Characteristics of Respondents, by State.

	Uttar Pradesh (%)	Madhya Pradesh (%)	Andhra Pradesh (%)
Caste			
Scheduled Tribe	1.4	68.1	0.8
Scheduled Caste	33.6	5.1	12.4
Other Backward Caste	39.8	16.3	43.5
General	25.2	10.5	43.3
Education group			
No education	62.8	55.4	55.4
Primary	12.5	27.9	22.2
Secondary	18.0	10.6	15.6
Higher	6.7	6.0	6.8
Land area			
Marginal - <1 hectare	25.9	55.4	55.6
Small – 1 to <2 hectares	26.4	27.9	21.9
Médium – 2-4 hectares	22.1	10.6	15.6
Large – 5+ hectares	25.6	6.1	3.9
Source: Individual level questionnaire,			

Uttar Pradesh Sodic Lands Reclamation Project

Analysis of the reasons given by informants for their positive or negative evaluation of the project's achievements revealed that responses were highly contradictory. For example, some respondents stated that irrigation water was delivered promptly and that production duly increased, while others alleged that water was not delivered on time and production was adversely affected. Were positive or negative assessments, and their associated reasons, related to respondent characteristics? The results of the probit analysis on the characteristics of those giving higher or lower rankings of achievement of formal objectives are presented in the Box 3.3.¹⁹

Results from the probit regression suggest that older people and those with smaller land holdings were groups more significantly associated with negative responses concerning the achievement of certain of the formal objectives (see Tables A5.1a-c in Annex 5). Higher assessments of achievement were particularly associated with representatives, regular attendees and the longer the member had participated in the project. It is important when reading the results of this probit analysis to bear in mind that the technique identifies those characteristics which strongly associate with a particular rating. Bearing in mind that an average of 40 percent of respondents either rated achievement of formal objectives poorly or had not enough information to assess achievements, Box 3.3 therefore

¹⁹ See footnote 15.

also tells us that dissatisfaction was fairly evenly distributed across members belonging to different social and economic groups.

Box 3.3 Characteristics of Respondents Associated with Different Assessments

The ordered probit regression estimation suggests the following characteristics of members are significantly associated with ranking achievement high or low.²⁰

Objective 1: Equitable distribution of inputs

High

- group representatives
- members who attend meetings
- the longer the period of participation in project activities
- those engaged in local wage employment.

Objective 2: SIP development and implementation

High

- group representatives
- members who attend meetings
- the longer the period of participation in project activities
- those with medium and large land holdings compared to marginal land holders.

Low

- older members
- those with small and marginal holdings compared to those with larger land holdings

Objective 3: Management and maintenance of assets

High

- members who attend meetings
- the longer the period of participation in project activities

Low

- older members

Although, as Table 3.2. highlights, more than half of all users perceive the achievement of formal objectives to be good or satisfactory, an average of 15% rated achievement as “poor” and the rest did not know. The narrative Village Summaries drawn up by each research team offer insights into the reasons some informants gave negative assessments of achievement:

“Village power politics are substantially impacting on the performance of the project. The powerful and wealthier have often usurped the benefits of the inputs, marginalizing the access of the poor to inputs....some poor people’s sodic soil has not been reclaimed. Power and wealth also affect the location and installation of irrigation facilities. Influential people have been able to lobby for their interests...in some villages influential farmers without sodic lands have been included in the project. Assets such as drains are not maintained in many villages.

²⁰ See footnote 15.

In some villages people do this individually. No fund was raised for the maintenance of drains” (State Study Team, Uttar Pradesh)

A sizeable minority, then, feels that inequalities in social and economic status are interfering with the achievement of the formal objectives. As society in Uttar Pradesh is highly fragmented and dominated by certain socially defined groups, the effect of caste and class on the performance of an organization regarded as being the point of access to power and resources, would be expected. Supporting this, summary statistics of the data indicate strong positive associations²¹ between education & caste and strong negative associations between poverty & caste and education & poverty. The coefficient for poverty and caste is double that of caste and education (see Tables A6.1 in Annex 6). From the data, a respondent belonging to a scheduled caste household was almost twice as likely to be illiterate as someone belonging to the general caste group. Similarly, of the very poorest households surveyed 58 percent were scheduled caste and 33 percent were from other backward caste households, whereas only 8 percent of general caste households fell into this group. Conversely, of all the households in poverty rank 1 (richest) 76 percent were general caste, 24 percent other backward caste and none scheduled caste (Table A6.1 in Annex 6).

The village context suggests that caste, associated as it is with factors that often determine capacity to access and use development opportunities, could easily play a dominant role in assessments of achievements. This is supported by the records of the state study teams and the focus group discussions. However, none of the statistical analysis found caste to be significantly associated with assessment of achievement of formal objectives.

Associations between other village characteristics and achievement of formal objectives were limited. The larger the village, the lower the assessments of achievement but no relationships were apparent between ranking of formal objectives and distance to district headquarters, the presence of an all weather road, education facilities or training of representatives.²² Most villages had all-weather roads and a primary school. In very few cases had any training been given to representatives and there had been almost no contact with the gram panchayat, government line departments or other government officials (such as Block Development Officers), see Tables A7.1 & A7.2 in Annex 7.

Groups gave different reasons for meeting project staff, and here we find that respondents’ understanding of the purpose of those meetings did have a bearing on the way they judged performance and achievement. The data suggest user groups who met project staff for technical support or for sharing of benefits thought formal objectives had been more successfully achieved.

²¹ Significant at the 10% level

²² Findings for village characteristics are based on a sub-sample of villages in all states. Results across villages are not presented here due to space limitation. Significance is at the 10% level.

Other useful findings from village level data relate to the presence of other organizations and a respondents relationships with these organizations or their members (Table A7.2 in Annex 7). In Uttar Pradesh villages positive assessments of achievement of formal objectives were associated with:

- The greater the number of organizations to which a SIC member or representative belonged
- The more family members involved in a group
- A higher number of people from the extended kin group belonging to the project group.

Summary of Uttar Pradesh findings

While initial analysis of the data suggest that poorer households, and those with less education are more likely to rank achievement of formal objectives lower, these relationships do not hold when other factors are controlled for, in probit analysis, at the individual level. Older people and those with smaller holdings feel that site implementation plans are not developed or supported and that assets are poorly managed and maintained. Long term group members, regular attendees and representatives have different perceptions and report improvements and benefits. These findings must be seen in the context of 77 percent of respondents reporting good or reasonable input distribution; 45 percent either not knowing or rating poorly planning and execution of the site implementation plan; and, 52 percent stating that they either knew nothing about assets created under the project or that they were poorly maintained. In this project, despite differences across caste groups in terms of education and poverty, there is *little to indicate any association between caste and perceptions of achievements of the user group's formal objectives.*

Variation in assessments across villages highlight some interesting findings. More frequent meetings with project staff are associated with negative evaluations on achievement of formal objectives unless those meetings are for technical support or for sharing inputs. This suggests (and is borne out by focus group discussions and village summaries, see Boxes 3.7 - 9) that *members primarily perceive the SIC as a means of accessing technical information and immediate benefits* rather than as a mechanism for establishing long-term cooperation among water user groups and their members as a means of ensuring that activities will be adequately managed in the future. On the other hand, it is possible that user groups who met with project staff for other reasons may have been bringing problems or complaints to their attention. If so, then ratings of achievement may have been lower as a consequence of these problems

The density of organizations and relationships between members of organizations are positively associated with views on achievement of formal objectives. *The more highly networked a person, the more highly s/ he will view project group achievements.* When viewing this finding it is important to temper the assumption that high levels of social

capital have a positive impact on user group performance, with an analysis of who it is that benefits. In highly differentiated societies social capital has different values for different groups. People vest in relationships and institutions for different reasons and experience disparate returns or streams of benefits. Thus, while this finding is interesting and confirms an association between the presence of multiple organizations and more effective collective action, it is inadequate – as results relating to who is associated with negative responses indicate -- to conclude that more social capital leads to better equity outcomes.

Madhya Pradesh Forestry Project

The reasons given for favorable or unfavorable valuations of achievement of formal objective were found to be widely divergent. For example, some informants, who offered positive valuations, stated that illegal cutting is controlled while others, giving negative evaluations, said it had increased. In terms of village development activities, some cited the construction of roads, schools and temples as reasons for giving a high valuation, while others said that nothing had been done. Were positive or negative assessments, and their associated reasons, related to respondent characteristics? The results of the probit analysis on characteristics of those giving higher or lower rankings of achievement of formal objectives are given in the Box below (see Tables A5.2a-c in Annex 5 for the complete set of results).

Box 3.4 Characteristics of Respondents Associated with Different Assessments

The ordered probit regression estimation suggests the following characteristics of members are significantly associated with ranking achievement high or low.²³

Objective 1: Improved forest protection

High

- attended the village forest committee meetings more often
- expected increased labor opportunities when joining the group
- benefited from increased wage labor
- benefited from increased material goods and inputs
- belong to households where the main source of livelihood is from temporary employment.

Low

- Other backward caste respondents compared to scheduled tribe respondents

Objective 2: Managing Village Development Activities

High

- those who have benefited from loans, labor and increased material goods and inputs
- cattle ownership
- households whose main source of livelihood was from temporary employment

Low

²³ See footnote 15

- the other backward caste respondents compared to scheduled tribe respondents

Objective 3: Equitable Distribution of NFTP

High

- regular attendance of VFC/FPC meetings
- being a representative
- benefiting from labor opportunities
- benefiting from a loan
- being male
- being engaged in local daily wage employment
- having 5 or more heads of cattle compared to those without cattle

Low

- higher age of respondent
- Scheduled caste respondents compared to scheduled tribe respondents

29 percent of respondents stated that they had insufficient knowledge to comment or that objectives were poorly achieved. Older and non-tribal people were those particularly associated with these negative assessments. Positive assessments were associated with representatives, regular attendees and those who had directly received benefits from the project. - Therefore, high and low rankings (86 percent satisfied with objective 1 achievements; 76 percent satisfied with objective 2 achievements; 51 percent satisfied with objective 3 achievements) can be assumed to be relatively evenly distributed across other social and economic groups(see Table A5.2d in Annex 5).

Village summaries and focus group discussions in Madhya Pradesh again offer additional insight into issues underlying group achievements:

In Bilaspur, forestry is a less critical component of livelihood portfolios. There, village summaries included a number of positive statements about achievements. In focus group discussions, however, some of the reasons for negative valuations emerged:

“Over half of the focus groups in Bilaspur district referred to labor opportunities, improved irrigation facilities and construction works brought to the village through the village resource development plan, as the reason for thinking that the FC was good. Less than half said that forest protection was important ” (Focus Groups) “ Forest department staff have the tendency to link up with a few main people in the village whom they are constantly in touch with and rely on for running the VFC. This centralizes the activities of the VFC to a few villagers who often take advantage of the situation. Full awareness of the project was only found in one village..” (Village Summaries).

In Kanker, which is a deep forest area with a less developed market economy, the economic options beyond forest usage are fewer. There, the village summaries and focus groups included the following comments:

“FPCs have been formed in a very rapid manner..the executive committee is formed in a very mechanical way...villagers have only a vague idea about the objectives and responsibilities and are not consulted” (Village Summaries). “The most common suggestion for how to improve the FC in Kanker district was to increase financial assistance to the group which in turn could extend financial support to households or generate labor opportunities through construction works”(Focus Groups)

It should be noted that these statements suggest that forest protection, as a goal of the project, has not been internalized by all members. Instead, some appear to be interested in what the project may have to offer in terms of financial assistance or wage employment opportunities.

The two districts in which the study was undertaken differ in terms of social composition and to a degree this explains the manner in which Forest Department staff interact with villagers. Bilaspur has a mixed population in which the form and nature of relationships are based more on socially determined hierarchies than in Kanker, with its largely tribal population. In Bilaspur, Forest Department. Officials are more likely to interact primarily with village elites, while in Kanker they are likely to have working relationships with a broader spectrum of village society. Despite these differences, analysis of village characteristics indicates far less variation across villages in Madhya Pradesh than in Uttar Pradesh or in Andhra Pradesh (see Tables A7.1 & A7.2 in Annex 7). There was also little difference across respondents in Madhya Pradesh in terms of social and economic positioning or years of education (see Table A6.2 in Annex 6). Richer households however did own more land than poorer households. All villages had a primary school. A small number of villages had no all-weather road and this was associated, but not significantly, with lower overall evaluations of the user group. The larger the village and the further from a district headquarters, the lower the ranking of achievement of formal objectives.

Representatives from 13 percent of groups in the sub-sample had undergone some training. This mainly comprised exposure visits. Results are not conclusive but this appears to be related to higher valuations of the overall performance of user groups. Unlike Uttar Pradesh, frequent meetings with departmental staff were positively associated with achievements of formal objectives. There is evidence that meeting Forestry Department staff for general support was also positively associated, but meeting to decide on shares of forest products was not (Tables A7.1 and A7.2 in Annex 7). This may reflect the fact that, as revealed in their focus group statements, many members display stronger interest in the village fund component of the project than in its forestry components.

Very few other organizations were present in villages with the exception of anganwadi centers which were found in 70 percent of villages. Where locally evolved organizations were present they appeared to have a limited but positive impact on assessments of

achievement. However, there was some evidence that the presence of government supported organizations (revenue office, high school, adult education center) were associated with negative assessments of group achievement. A positive association existed between membership in multiple organizations and assessment of achievement of formal objectives. There was virtually no contact with NGOs, line departments (other than the Forestry Department) or other agencies. 15 percent of user groups had made contact with the panchayat but this has no relationship with judgments of overall performance or achievement of formal objectives (Tables A7.1 and A7.2 in Annex 7).

Summary of Madhya Pradesh findings

In Madhya Pradesh, only other backward castes were consistently associated with low rankings of formal objectives of forest protection and managing village development. Scheduled caste respondents and older people knew nothing of, or rated poorly, equitable distribution of forest products. Social grouping thus did affect the way that members perceived the performance of user groups.²⁴ In general, **tribal people are more satisfied with the performance of the user group in terms of achievement of formal objectives**, than older people or those from other backward caste or scheduled caste households. Although there is no data that can clearly explain this discrepancy, it is possibly rooted in the fact that, in this area of MP, tribal groups are historically more heavily dependent upon forest products for their livelihoods than are caste groups. It is possible that they have interacted more regularly with forest guards and thus have learned to work closely with them in a positive way. In any case, the majority population of the area is ST, while caste group members are a small minority.

Village level differences indicate that frequent meetings with project staff improve perceptions of the value of user groups as did general support from project staff. However, meeting staff to share forest produce was not associated with good ratings. This finding, combined with the fact that 30% of Madhya Pradesh informants ranked achievement of Objective 3 (equitable distribution of forest produce) as “poor,” suggests that meetings held for this purpose are unproductive or are mishandled.

Sharing of forest products, then, was reported to be the most poorly achieved of the three objectives. Outcomes of focus group discussions and of reports found in the village summaries suggest that indifference to this objective may partially explain this result: ‘In Bilaspur, “..the FC gives labor opportunities, improved irrigation facilities and construction works (through the village resource development plan)”, and in Kanker, “food grains are now distributed”,²⁵ (Madhya Pradesh State Team) begins to suggest that **people are interested in user groups because they receive individual benefits** not because they perceive them as mechanisms which assist cooperation or collective action. This issue is explored further in subsequent sections of this report.

²⁴ In one of the forty villages studies there had been violent clashes between tribal and non-tribal people which had adversely affected forest protection.

²⁵ This results from the link between the World Food Programme and the FPCs

Again, *membership in multiple organizations was associated with higher rankings of achievements of formal objectives*. However, the view that if the density of organizations is greater, then the stock of social capital will be greater and the likelihood of having a successful organization will consequently be higher, is challenged by the results of this Madhya Pradesh data set. The findings indicate that there is an inverse relationship between the number of external organizations present in a location and achievement of formal objectives. On the other hand, as the density of locally evolved organizations²⁶ is positively associated with assessments of achievement, there is reason to believe that there is a significant difference between the social capital value of organizations depending upon whether they are externally induced or locally evolved. These findings may simply indicate that social capital is a complex concept, and that *formal, government sponsored organizations do not constitute the right mix of “associations or networks” to improve the distribution of benefits*. If so, then the presence of such types of organizations – at least in Madhya Pradesh – are not good indicators of the density or value of social capital.

Andhra Pradesh Economic Restructuring Project: Irrigation Component

As with the other two projects, informants in Andhra Pradesh were asked to state their reasons for offering favorable or unfavorable valuations of the achievement of formal objectives. As with other projects, informants’ statements were contradictory. Those rating achievement highly stated that the irrigation system was properly repaired and that water wastage was reduced, while others stated that repairs were infrequent and wastage continued to be a problem. But who are the people giving these reasons? Summary statistics and probit analysis explores the relationship between a respondents characteristics and his/her assessment of achievement of formal objectives. Results are presented in the box below (see Tables A5.3a-d in Annex 5).

Box 3.5 Characteristics of Respondents Associated with Different Assessments

The ordered probit regression estimation suggests the following characteristics of members are significantly associated with ranking achievement high or low.²⁷

Objective 1: Effective maintenance of irrigation system

High

- representatives
- those who benefited from increased water supply
- those who owned 2 or more hectares of land compared to those who own less than 1 hectare of land

Low

- Respondents from poverty rank 3 and 4 i.e. the poorest groups compared to the richest group.

²⁶ “Locally evolved organizations” refers to those that have emerged without external initiative or influence.

²⁷ See footnote 15.

Objective 2: Better water distribution

High

- representatives
- those who worked for a representative
- the longer the period of participation in project activities

Low

- belonged to households in the three lower poverty ranks compared to the richest group

Objective 3: Increase in agricultural production

High

- representatives
- those who benefited from access to information
- those who benefited from improved water supply
- those engaged in local daily wage employment
- those who owned more than 8 heads of cattle compared to those who didn't own cattle

Low

- in households in the third poverty rank (4 = poorest) compared to the richest group

In Andhra Pradesh, poverty was found to be an important factor in satisfaction (or lack of satisfaction) with project results. Results of probit analysis suggest that poorer households were more likely to state that formal objectives were poorly achieved. Those respondents who were representatives, those who were working for a representative, and (predictably) those who were receiving better supplies of irrigation water were more likely to be very satisfied with the group's ability to meet formal objectives. Assessments were otherwise evenly distributed across social and economic characteristics (see also summary statistics in Table A5.3e in Annex 5).

The narrative village summaries compiled by the Andhra Pradesh study team provide the following assessments of why two of the formal objectives (objective 2, 48 percent dissatisfied; objective 3, 59 percent dissatisfied) were not achieved as highly as might be hoped for:

From Krishna, "There is a lot of out-migration from Krishna district. This is most common amongst the major general castes of the area...a few family members remain in the village to cultivate land. However, some of those who have settled elsewhere still have quite strong economic and social influence in the village and have become representatives (even Presidents) of WUAs. Caste dominance is highly reflected in the WUAs. In some of the villages the concentration of physical works in the irrigation system is an outcome of existing power patterns as the main works are taken up close to the fields of the President and other influential people ...however there are also villages in which the President is more inclusive and has ensured that benefits are distributed evenly".

From Kurnool: “WUAs have been formed in a rapid manner with the result that people are little aware of their functions, roles and responsibilities. The affluent and influential people have been elected representatives of the WUAs. Technical Committee members do not take much interest in the activities as they are not very familiar with the WUA”. (State Study Team, Andhra Pradesh)

Socially prescribed power relations are regarded as a prime reason for limited achievements in improving water supply and increasing agricultural production. Summary statistics suggest strong associations between caste & education and caste & poverty rank in Andhra Pradesh (Table A6.3 in Annex 6). We find that, if a respondent belonged to a scheduled caste household, s/he had a 71 percent chance of being illiterate. Other backward castes had a 61 percent chance of being illiterate, and general castes 45 percent. Households in the poorest quartile of Andhra Pradesh villages were almost twice as likely to be scheduled caste rather than general caste, while the reverse is true for the richest quartile. Other backward caste respondents' education levels and household poverty rankings were evenly dispersed. From the regression results, although the highly educated ranked the overall achievement of the WUA lower, the only differences that achieved statistical significance were those across economic status, with poorer households ranking both the overall valuation of the WUA and the achievement of formal objectives significantly lower.

Other characteristics of the village provide limited insights (see Table A7.1 and A7.2 in Annex 7). A quarter of villages did not have schools and 13 percent of villages did not have an all weather road. Four fifths of villages had an anganwadi center. None of these characteristics were associated with any pattern of response. No significant relationship was found between the size of the village and respondents perceptions of user group achievements, but this is not unexpected as WUAs are associated with hydrological rather than settlement units.

Summary statistics suggest that when respondents perceived the purpose of meeting project staff to be for management of assets, sharing of benefits and for financial reasons they gave high valuations to user groups and achievement of objectives (Table A7.1 in Annex 7). Meeting for training, technical support, planning and monitoring were associated with low evaluations of user groups and the assessments of formal objective achievement.

The greater the number of external organizations the higher the assessments of achievement of formal objectives (Table A7.2 in Annex 7). 55 percent of groups had contacted a government line department, but this relates mainly to the Irrigation and Command Areas Development Department which is charged with project implementation, rather than other line departments. Nearly 25 percent of groups had relations with Banks. The presence of locally evolved organizations – such as religious groups and traditional village councils -- had a weak negative association with achievements. Representatives in

the WUA who are also representatives in another organization associate with higher rankings of user group achievements. For a general member, having family members or extended kin as representatives of the WUA is also associated with higher ranking of achievements of formal objectives as is group membership of kin.

Summary of Andhra Pradesh Findings

A clear majority of respondents felt that irrigation systems are currently well maintained, over half feel that WUAs have assisted with the better provision of irrigation water and 46 percent state that WUAs have delivered on increasing agricultural production. As in Uttar Pradesh, the social context of a village also appears to influence the operation and perception of user groups. Poorer people tend to be scheduled caste and *poorer people are consistently associated with lower ranking of project achievements.*

The high ranking of achievement of objective 1 across poverty ranks indicates that most WUA members feel that the user group maintains the irrigation system reasonably well, but about half of WUA members are dissatisfied with performance related to other objectives. Capacity building, general monitoring and technical support were not seen as important WUA activities by most user group members whereas asset management, sharing of benefits and financial reasons were. “People only come to WUA meetings when there is a problem” (Village Summaries). Irrigation water, once delivered to a field, becomes an individual benefit, and it is this – more than collective management – that is of primary interest to farmers. Again, data suggest that *WUAs may be perceived more as a means of achieving individual benefit, and cooperation can only be expected to the extent that this need is satisfied.*

Unlike Uttar Pradesh and Madhya Pradesh, the greater the density of external organizations the higher the ranking of achievement of formal objectives. *Networks of relationships appear important to perceptions of user group achievement.* In particular, association – through work or family/kin ties -- with a representative positively affects views of achievement as does the participation of other family members in the WUA.

3.3 Members' Objectives

While the findings of the section above demonstrate project specific patterns in members' assessment of formal objectives, several cross-cutting messages emerge:

- the majority of user group members are reasonably content with group achievements. Older members tend to be more disappointed, but representatives of groups and those who attend meetings more frequently are better satisfied;
- members perceive groups primarily as a mechanism through which individual benefits flow from the project rather than as an opportunity for cooperation;
- people who are better networked organizationally have more positive views on the achievements of user groups.

The fact that the majority of users are satisfied with their groups' achievements is an indication that, at least during the life of the project, these local management initiatives are attaining some degree of success. Whether or not these achievements can be sustained beyond the project period, however, is far from certain. The finding that members appear to regard user groups as a means of accessing short term individual ends appears counter to expectations found in project documentation of project induced groups acting as mechanisms for long term collective management. This, combined with the 20 percentage point difference between overall evaluations of user groups and aggregate assessments of achievement of formal objectives, points to the need for further investigation of members' incentives for membership in groups. What, then, were members' objectives and did these objectives reflect an interest in user groups as mechanisms for cooperation and collective management? We began this exploration by first asking what members objectives were when they joined groups and then assessing the benefits currently received.

Respondents gave various and lengthy explanations of their objectives, or reasons for participating in user groups. The inducements they described, however, rarely coincided with the formal objectives of user groups. The table below lists some of the motives for membership that were reported to the researchers:

Box 3.6 Most Frequently Cited Objectives

Uttar Pradesh Material goods/inputs Increased production from own land Access to Information
Madhya Pradesh Wage labor Loans Material goods/inputs
Andhra Pradesh

Material goods/inputs Increased irrigation water Increased production from own land Source: Individual Questionnaire

Box 3.6 illustrates that of the three most commonly cited objectives: in Uttar Pradesh, only distribution of inputs matched with formal project objectives; in Madhya Pradesh, there was no match; and, in Andhra Pradesh, only increased agricultural production matched. These findings show that *members' objectives for user groups differ from the formal objectives of user groups*. As Box 3.7 clearly indicates, *user group members' objectives focused on very specific individualized benefits*. User groups were regarded as a means to these individual ends and *in no case did members state that cooperation for the maintenance of collective assets was a reason for participating in the user group*.

Box 3.7 Members Views on User Group Objectives

“SICs should ensure that I always get water and inputs...” (respondent Uttar Pradesh) “SIC meetings are linked to the distribution of inputs....frequency of meeting fades with the discontinuation of inputs....the group process is missing” (Village Summaries, Uttar Pradesh Study Team).

“The group is to give families somethingforest protection will give individual families benefit ...” (respondent in Madhya Pradesh) In Bilaspur, “..the FC gives labor opportunities, improved irrigation facilities and construction works (through the village resource development plan)” and in Kanker, “food grains are now distributed” (This results from the link between the World Food Program and the FPCs) (Focus Groups, Madhya Pradesh)

“In water abundant areas such as the Krishna delta ...farmers do not see there is a need for their participation as long as some people ensure that the physical works are carried out” (Village Summaries, Andhra Pradesh Study Team). “We go to WUA meetings if there is a problem with the water coming to our own fields, not other peoples’ (Focus Groups, Andhra Pradesh) “Let other people manage general things ...I am interested in my own fields (respondent in Andhra Pradesh)”

Members are clearly most interested in individual benefits and see user groups exclusively as the means to gaining them. There does not appear to be any clear incentive for users to invest in the organizational means of gaining future returns.

Were the specific benefits sought by members’ realized? Matching expectations and benefits demonstrates they were (see Table 3.3 a - c).

Table 3.3 a- c Percentage of Respondents Receiving Most Frequently Expected Benefits

Table 3.3a : Outcome of expectations, UP				
	Of User Group Members			Those expecting who received
	Expected	Actual	Not receiving	
Material goods/inputs	76%	56%	44%	73%
Increase Production own land	81%	62%	38%	76%
Access to information	22%	15%	85%	68%

Table 3.3 b : Outcome of expectations, MP				
	Of User Group Members			Those expecting who received
	Expected	Actual	Not receiving	
Labour Opportunities	28%	34%	66%	124%
Loan	15%	17%	83%	112%
Material goods/inputs	15%	50%	50%	334%

Table 3.3 c : Outcome of expectations, AP				
	Of User Group Members			Those expecting who received
	Expected	Actual	Not receiving	
Material goods/inputs	28%	34%	66%	122%
Increased Irrigation Water	17%	61%	39%	357%
Increase Production own land	58%	21%	79%	37%
Access to information	15%	12%	88%	82%

In all projects, user groups were providing the majority of members with the benefits they expected to receive. Even in Uttar Pradesh, where expectations of benefits were not all met, figures show that (apart from expectations of the user group providing wage labor) 65 percent or more expectations were met. In Madhya Pradesh and Andhra Pradesh expectations were exceeded in several cases. This suggests an explanation of why, despite variation in the rankings of achievement of formal objectives, the overall performance of user groups was considered good – *people were getting what they wanted from user groups.*²⁸

²⁸ This finding is further supported by results of ordered probit analysis reported in the following section on participation which discusses receipt of benefits.

Did expectations vary across social and economic groups? Cross tabs tell us that people's views on what benefits would be derived from membership in a user group did not differ across caste but did differ by gender and poverty grouping of households.²⁹

- *Gender Differences:* Overall men had far higher expectations of the benefits of joining user groups than women. In Uttar Pradesh 75 percent of men but only 53 percent of women respondents expected to benefit from inputs and a higher proportion of men expected better access to information and increased land productivity. In Madhya Pradesh, disparities were even sharper, with double the percentage of males expecting wage labor and loans from the project than women. In Andhra Pradesh 47 percent of male respondents and 33 percent of female respondents expected increased production from household land. In both Uttar Pradesh and Andhra Pradesh more men than women anticipated benefiting from increased access to information whereas in Madhya Pradesh this was important for neither.
- *Economic Differences.* In Uttar Pradesh and Andhra Pradesh proportions of respondents expecting increased returns from their own land ranged from 90 percent in poverty rank 1 (wealthiest) to 70 percent of those in poverty rank 4 (poorest). In Uttar Pradesh, a similar pattern of decreasing expectation as households became poorer was observed for improvements in relationships, access to information and improvements in irrigation water supplies. The reverse pattern occurred with regard to wage labor opportunities in Uttar Pradesh and Madhya Pradesh – the poorer the household the greater the expectation of this benefit. Expectations of other benefits were fairly evenly distributed in Andhra Pradesh as they were in Madhya Pradesh.

Summary of Findings on Members' Objectives

User group members are interested in material goods and inputs and they want to increase the productivity of activities of immediate importance to their livelihood portfolios. Men expect more from user groups than women and differences in expectations associated with the poverty rank of a respondent can be directly related to the main livelihood activity of the household to which s/he belongs.

Overall, expected benefits are being delivered and hence members positively assess user group performance. Excerpts from the state study team's village summaries reinforce this (see Box 3.8) but also indicate that while members are receiving what they want, *there are questions over the manner in which these project induced groups are managing cooperation and collective action.*

²⁹ Those gathering information for this study were initially asked to select a 50% sample of women. This proved impossible. Many women approached in households said they did not have enough knowledge of the user group to answer the questions put to them. Due to the small number of female respondents, gender analysis relies on cross tabs.

Box 3.8 Study Teams' Views on Members' Interest in User Groups

In Uttar Pradesh: "Agriculture is the main source of livelihood...the project has changed people's perception, they now believe sodic lands can be treated...impact is high as villagers can now grow crops..but, people identify more with WUGs, because they have the clear purpose of irrigation....people want more inputs, self-reliance is questionable...villagers do not perceive the SIC as a village organization in which they have a stake, but more as a temporary provider of benefits/inputs".

In Madhya Pradesh, Bilaspur district: "Few villagers are interested in the activities of the FC as they are preoccupied with meeting their livelihood needs (which come from) agriculture and wage labor" but in Kanker where expectations of increased production from common resources was high " minor forest produce constitutes an important part of the livelihood portfolio". "Much stress is placed on the other development activities that have been brought to the village through the Village Resource Development Program and which have more impact on families direct livelihood needs. Villagers place more emphasis on the FC as an overall development organization and as an opportunity for wage employment. Forest protection is more of a long term activity which villagers many not see the fruits of instantly".

In Andhra Pradesh, in the Krishna delta where water is abundant " Participation in the WUA is low..larger farmers mainly attend as they get the water...members want more money from the project for improving the irrigation system." In Kurnool district, "establishment of lift irrigation will solve more problems than the WUA..the WUA cannot solve some of the main problems experienced by the villagers, the Irrigation Department needs to be involved, these things cannot be completely entrusted to the WUA".

Source: Village Summaries, State Teams

The objectives which project designers and implementers set for user groups are, in one critical respect, rather different from those of group members. Findings suggest that at present, *user group members view these community level project induced organizations as a means of accessing individual, short term benefits rather than as mechanisms of cooperation for long term shared benefit*. The statements above indicate that many group members fail to apprehend that the resource can, if managed successfully by the group, become a continuing source of benefits in the future. In Andhra Pradesh, for example, members expect to be paid to improve an irrigation system that is designed to serve them. This suggests they view their role in maintaining the system as that of paid laborers rather than water users who will themselves benefit from the improvements to the system. They do not, therefore, appreciate the fact that cooperation with other members to maintain the system is actually investment for future well-being. This conclusion is examined more closely in the following section in which we ask if these user groups are currently functioning in a manner supportive of cooperation and collective action.

3.4 Are Groups Functioning as Expected?

User groups in all three projects studied were expected to support equitable inclusion of different groups of stakeholders and to function as democratic bodies overseeing the management of a common, or shared, resource. In all three projects, user-groups are expected to continue functioning in this way beyond the life of the project.

As discussed in section 2, three indicators -- participation, transparency and governance & accountability -- were considered central in this analysis and used to measure whether or not user groups were operating as expected.

3.4.1 Participation

Participation is often assumed to be essential for the successful implementation of community based projects. In this study, participation was measured in three ways: attendance of meetings, receipt of benefits and involvement in group decision making.

Measured by attendance of meeting... The table below displays the frequency of attendance at meetings for all three projects

Table 3.4 Attendance of UG Meetings

	Percentage Attending		
	Often	Rarely	Never
Uttar Pradesh SIC	30	35	36
Madhya Pradesh VFC/FPC	48	24	28
Andhra Pradesh WUA	33	23	44

Source: Individual Questionnaire

As Table 3.4 illustrates, attendance figures are not very encouraging. Madhya Pradesh demonstrates the highest attendance figures but in Andhra Pradesh and Uttar Pradesh it is apparent that at least two thirds of members seldom attend a user group meeting. Why is this? Table 3.5 gives the most frequently cited reasons for each user group.

Table 3.5 Percentage of Respondents Giving Principal Reason for Non-Attendance

	Uttar Pradesh % SIC	Madhya Pradesh % VFC/FPC	Andhra Pradesh % WUA
Non-Attendees			
Lack of interest/benefit	5	8	20
Lack of time	7	24	24
No information*	54	39	39
Specific people only	2	0	6
Against social norms	1	3	2
No meetings*	22	15	7
Other	9	11	1

* This information is based on members' understanding of whether or not meetings were held. Respondents who did not attend meetings, but who said meetings were held, were asked why they did not attend meetings.
Source: Individual Questionnaire

In many cases, *information about meetings is not available to group members*. In Uttar Pradesh *meetings are often not held* and in Madhya Pradesh and Andhra Pradesh *time is a constraint*. It is only in Andhra Pradesh that many of the respondents who did have knowledge of meetings had little interest in attending. Focus group discussions gave insights into this (see Box 3.9).

Box 3.9 Reasons for Lack of Interest in WUAs

In Krishna district, “meetings are mainly attended by technical committee members and staff of the irrigation department... farmers will make use of the WUA when conflicts about water arise, ‘til then there is no need to get involved “, and in Kurnool district “the WUA is a platform for vesting and dissemination of individual and caste based power...meetings are only organized when there is some implementation of works...(and) the problems of irrigation are beyond the capacity and mandate of WUAs”.

Source: Focus Group Discussions.

Do reasons for non-attendance or attendance rates correspond to any particular social or economic group? Reasons varied by state:

- *In Uttar Pradesh*, information about meetings was less available to poorer, scheduled caste and other backward caste households;
- *In Madhya Pradesh*, apart from gender differences, where more women reported no meetings, reasons for non-attendance were not associated with any particular social or economic group.
- *In Andhra Pradesh*, it was the very poorest, scheduled castes and women who most frequently reported little interest in attending WUA meetings.

Probit analysis (see Tables A8.1a-c in Annex 8) was used to assess which characteristics of respondents were associated with attendance of meetings. These are summarized in Box 3.10 which clearly illustrate that *representatives participate more in meetings* than general members, those *who attend gram sabha meetings also attend user group meetings*, and that there is a *strong association between attendance and individual gain*.

Box 3.10 Who Attends User Group Meetings?

Factors associated with attendance of Site Implementation Committee meetings in **Uttar Pradesh**:

Positive Association

- attendance of Gram Sabhas,
- status as a project group representative,
- those with secondary school and college education compared to those with no education,
- those who engaged in local wage employment,
- those households where the livelihood is from a mix of activities.

Negative Association

- small and medium landholders compared to large landholders

In **Madhya Pradesh**, factors associated with attendance of VFC/FPCs were:

Positive Association.

- attendance of Gram Sabhas,
- representatives,
- years the respondent has been a member of the group
- males

Negative Association

- large landholdings

In **Andhra Pradesh**, people who attended WUA meetings were,

Positive Associations

- those who attended Gram Sabha meetings,
- representatives,
- those having a pucca house

Negative Associations

- mainly employed in working in own farm
- those employed in government services
- all but the richest quartile
- those owning more cattle (3-6)

As probit regressions did not include receipt or expectation of benefits these were complemented with correlations (See Annex A8.3a-c). These tell us that in UP, receiving information and increased land production; in MP receiving inputs, wage labor and loans; and, in AP, all receipt of all four benefits (inputs, increased production from land, information and better supplies of irrigation water), were all associated with attendance of meetings. Our data are not able to indicate whether this is a cause or effect relationship – and without further discussion with respondents, we are unwilling to hypothesize the relationship required for further analysis. It is possible that receipt of benefits stimulates interest in, and commitment to, the user group. Alternatively, attendance at meetings may be a means of securing benefits (either legitimate or illegitimate). The fact that, at least in Andhra Pradesh, those who were wealthier attended more often than anybody else, support this hypothesis. It is expected that such individuals would be more powerful in the local context and better able to capture benefits.

Representatives were also high attenders. Who are these representatives?

Disproportionately, they were found to be male. In Uttar Pradesh only 10 percent, in Madhya Pradesh 8 percent and in Andhra Pradesh 8 percent, of women respondents were representatives. Comparison with male percentages?

Box 3.11 Women as Representatives

Uttar Pradesh: “Few women are members of the SIC. This only occurs where men have migrated or there is a female headed household for some other reason”.

Madhya Pradesh Bilaspur: “Women have no role in community affairs or the VFC irrespective of caste or class. Women representatives are inactive. There are villages where there are no women on the executive committee” Madhya Pradesh Kanker: “Generally women have no role in the FPC, in some villages there are no women on the executive committee”.

Andhra Pradesh: “In Krishna district there are relatively more female landowners and thus representatives of the WUAs...in Kurnool “the presence of women at WUA meetings is virtually unheard of”.

Source: Village Summaries, State Study Teams

In Uttar Pradesh summary statistics suggest that representatives may come from richer households but overall – because of the distribution of membership -- more representatives belonged to poorer households (see Table A6.4 in Annex 6). In Madhya Pradesh most representatives belonged to the second richest group. In Andhra Pradesh, the chances of being a representative were higher for the richest households but beyond that were fairly evenly distributed. Thus, *while women are poorly represented as office bearers in user groups, there is little discrimination in the selection of representatives on the basis of wealth.*

There is a clear association between members who attend Gram Sabha meetings and those who attend the meetings of user groups in the three projects studied. Is this tendency related to membership of a particular economic or social group? Of general members, summarizing characteristics according to economic group: in Uttar Pradesh those in poverty rank 1 (richest) attend SIC meetings more regularly; in Madhya Pradesh, attendance does not vary much across poverty ranks; and in Andhra Pradesh, respondents from the poorest households are less likely to attend than others. In Andhra Pradesh and Uttar Pradesh, *wealthier people more often attend user group and local governance meetings* (see Tables A8.1-3 in Annex 8).

In Uttar Pradesh and Madhya Pradesh fewer women than men reported attending user group meetings.

Table 3.6 Men and Women Respondents Reporting Attendance of Meetings

	% Women	% Men
Uttar Pradesh	9	32
Madhya Pradesh	17	55
Andhra Pradesh	30	32

Summary of attendance

Across states, *regular attendance of meetings is rare among general members. Representatives and those who are involved in political activities in villages are more likely to attend* user group meetings. The most commonly cited reason for non-attendance was *lack of information* which suggests that information circulation is restricted to certain groups of people – representatives and the politically active. In all states *women felt they had less access to information about meetings* than men and gave this as the primary reason for not attending meetings while *male respondents gave lack of meetings as the principal reason for non-attendance.*

Measured by receipt of benefits...

Probit regressions were also employed to understand what characteristics, if any, help to explain who received the benefits derived from membership of a user group (Tables A9.1a-c, A9.2a-c and A9.3d in Annex 9.) Tables 3.10 to 3.12 present the statistically significant demographic and group member characteristics by state.

Table 3.7 Likelihood of Receiving Benefits in UP

Respondent Attribute	More Likely +/Less Likely -		
	B1	B2	B3
Secondary & College education v no education			+
OBC compared to SC	-	-	
Expected material inputs	+		
Expected increased prod. Land	-	+	
Expected access to information	-	+	+
Engaged local wage employment		-	
Permanent employment income source	-		
Small land holdings compared to no land holdings	+	+	
Medium land holding compared to no land holding		+	
Pucca house compared to kutchha			-
# household members	-		

Benefits Code: B1 – increased material inputs, B2 – increased agricultural production ; B3 – increased access to information.
*significant at the 10% level

The table above illustrates the significant characteristics associated with received benefits in Uttar Pradesh and reinforces the earlier analysis which indicates that people overall are satisfied with the achievements of user groups because they are generally getting what they wanted (Tables A9.1a-c in Annex 9). Probit analysis indicates that receipt of benefits is significantly associated with several socio-economic characteristics. There is a difference amongst caste with other backward castes less likely to benefit from inputs or increased production than the scheduled caste group. Again, targeting could explain this difference if scheduled castes are the targeted groups. Examination of cross-tabs for trends in the case of gender, where sample size was too small for probit to consider significance, indicates little difference between men's and women's receipt of benefits. Those with college education benefit from increased access to information compared to those without education. Small and medium landholders, compared to marginal land holders, and those living in a kutchra rather than pucca house were more likely to receive benefits. This implies that poverty targeting is reasonable in the project but that those with the smallest holdings – who cross tabs indicate are the poorest group members in any village – remain peripheral in project activities.

Table 3.8 Likelihood of Receiving Benefits in Madhya Pradesh

Respondent Attributes	More Likely +_/Less Likely -		
	B1	B2	B3
Secd. Education vs no education	-		
Representative	+		
Length of membership			+
SC vs ST caste		-	
Expected material inputs	+		+
Expected increased lab. Opp.		+	
Expected access to loan	-		+
Hhold poverty rank 2 vs 1			+
Hhold poverty rank 4 vs 1		+	
Large land owner vs marginal		-	-
Land is irrigated	-		+
9+ heads of cattle v 0 heads		+	
Engaged in local wage employment		+	
No. of households of same caste in village	+	-	

Code: B1 – increased material inputs; B2 – increased labor opportunities, B3 – increased access to loans.
*significant at the 10% level

Again, results support the earlier analysis that members were receiving the benefits anticipated (see Tables A9.2a-c in Annex 9). In Madhya Pradesh representatives were more likely to benefit from increased material inputs but members with secondary education were less likely than those without education to receive this benefit. Results also

indicate that large landowners were less likely to receive loans than marginal landowners. Those who had been members of the UG for longer had greater access to loans. Summary statistics also show that fewer women respondents reported receiving opportunities for wage labor but more women (56 percent) than men (32 percent) reported receiving VRDP related benefits. The data also suggest that wage labor is evenly distributed across poverty ranks, and that those who have irrigated land are less likely to benefit from material inputs but more likely to benefit from increased access to loans.

Table 3.9 Likelihood of Receiving Benefits in Andhra Pradesh

Respondent Attributes	More likely +/Less Likely -			
	B1	B2	B3	B4
Expected material inputs	+	+		+
Expected increased prod. Land	+	+	+	+
Expected access to information			+	+
Expected increased irrigation water supplies	+	+	-	+
Medium v marginal land holding		-		+
Large v marginal land holding		-		+
Hhld poverty rank 3 v 1		-	+	-
Hhld poverty rank 4 v 1	-	-	+	-
Mixture of sources of hhld. Income				-
No. of Hlds. same caste				+

Code: B1 – increased material inputs; B2 – increased agricultural production; B3 increased access to information; B4 – better supplies of irrigation water.
**significant at the 10% level*

Members were receiving the benefits they expected (see Tables A9.3a-d in Annex 9 for complete results). While medium and large landowners were more likely to benefit from increased availability of irrigation water (production of common resources) the perception of respondents from both this group of beneficiaries and the poorest households was that this had not led to benefits of increased production from their own land. Water availability, then, would not appear to be the primary limit on production among these respondents. Poorer households did feel they had benefited from increased access to information but the very poorest quartile had not benefited from increases in quality or reliability of irrigation water supplies. Cross tabs indicated that gender differences were not significant.

Summary of benefits

Across all states most people were receiving the benefits they expected. Despite strong associations between socio-economic grouping of members and attendance of meetings ***there was little persuasive association between the social characteristics of a respondent and receipt of benefits*** apart from the very poorest people in UP. This suggests that project staff may have been monitoring the distribution of benefits to ensure that distribution was

appropriate. There are however consistent differences between receipt of benefits in Andhra Pradesh and the wealth of a household.

Measured by involvement in group decision making...

Attendance at meetings and participation in benefits are useful but incomplete proxies for participation. Participation in decision-making allows analysis of who is influencing and making decisions about user group business. It thus provides insight into power relations operating within groups – something generally considered an important factor when it comes to distributional issues and sustainability of the group or the benefits it controls. Three stages of decision making were investigated (Table 3.10).

Table 3.10 Participation in Decision Making

	Initiates Discussion (%)			Participates in Discussion (%)			Makes Final Decision (%)		
	Uttar Pradesh	Madhya Pradesh	Andhra Pradesh	Uttar Pradesh	Madhya Pradesh	Andhra Pradesh	Uttar Pradesh	Madhya Pradesh	Andhra Pradesh
Project Staff	78	25	6	34	7	11	48	20	3
NGO	8	0	0	12	0	0	1	0	0
All Members	13	2	0	70	91	6	19	12	2
All Reps	10	8	2	40	42	12	12	7	4
Chairman	2	77	17	3	4	14	6	67	19
Total	111	112	25	159	114	43	86	106	28

Note: Columns need not sum to 100% since categories are not mutually exclusive categories. Columns summing below 100% indicate that respondents felt no decisions were taken by the user group.
Source: Individual Questionnaire

- *In Uttar Pradesh...* Although project staff clearly lead discussions, seven out of ten members who attend meetings report being involved in discussions. Project staff again play a major role in decision making but members do feel they participate in about a fifth of cases. Representatives do not exhibit any tendency to control discussions.
- *In Madhya Pradesh...* In contrast to Uttar Pradesh, Project staff were found to be far less dominant in discussions. Chairmen in Madhya Pradesh generally tended to initiate group discussions and finalize decisions. However, more importantly, over 90% of all group members who attended meetings felt they participated in discussions.
- *In Andhra Pradesh...* Of those who attend WUA meetings, very few members claim to actively participate in any dimension of decision-making. Members explained that few decisions were ever taken by the group or at meetings but when they were the Chairman was most active and s/he discussed decisions with representatives

rather than the WUA as a whole. This implies that the decision-making function of local management groups has not been fully realized in Andhra Pradesh.

Cross tabs indicate that no women in the sample had ever initiated a discussion or made a final decision.

Summary of Findings on Participation

While there exists no baseline against which to gauge levels of attendance, figures suggest that while it is not realistic to expect high levels of attendance in user-group meetings due to time and interest constraints, *better access to information would improve attendance.*

Participation in decision making varied considerably – with Andhra Pradesh WUAs demonstrating the least involvement of members and Madhya Pradesh groups the most. *In none of the projects, however, were rank and file members highly active participants in decision-making.* In Uttar Pradesh project staff emerge as dominant in group decision making, whereas in Andhra Pradesh it was the Chairperson and representatives who appeared to control group decision making.

Despite generally low levels of attendance and very mixed participation in decision making, distribution of benefits is generally good. These projects all attempt a degree of poverty targeting and equity of benefit sharing, and to a large extent this has been achieved. The previous section demonstrated that user groups were performing well within the parameters of members' objectives. This analysis of participation raises a further interesting point – apparently *high levels of participation are not required for equitable distribution of the types of short term, individualized benefits which members currently expect from project induced user groups.* It is not clear, however, whether distribution would continue to be equitable if project staff were not available to supervise.

3.4.2 Transparency

As Section 2 illustrates, transparency is considered a fundamental in sustainable and effective cooperation and collective action. Transparency was measured by looking at information availability and awareness of group transactions.

Measured by information availability...

How do members come to know about what goes on in user-group meetings? How do they know what was discussed and what decisions were made? Answers to these questions are summarized in Table 3.11.

Table 3.11 Information Availability on Outcomes of Meetings

	Uttar Pradesh SIC		Madhya Pradesh VFC/FPC		Andhra Pradesh WUA	
	% All Respondents	% Non-Attendees	% All Respondents	% Non-Attendees	% All Respondents	% Non-Attendees
Individual present at meetings	16	0	34	0	27	0
Posters on wall	0	0	1	3	2	1
Word of mouth	26	14	33	17	42	42
Project staff	15	9	0	0	10	10
Minutes of meeting	6	1	0	0	1	2
Through relative	1	1	6	12	14	7
Does not come to know	42	68	23	47	24	28

Note: Columns need not sum to 100% since categories are not mutually exclusive
Source: Individual Questionnaire

- *In Uttar Pradesh..* while 14% of all non-attendees come to know of the decisions reached at the meeting by word of mouth and 9% through a member of the project staff, 48% of all members and 68% of all non-attendees claim that they do not ever come to know about the outcome of meetings.
- *In Madhya Pradesh..* nearly a quarter of all members and half of those who never attend meetings have no information on decisions made in meetings.
- *In Andhra Pradesh..* the most often cited way that people hear about the outcomes of meetings is word of mouth. Around a quarter of members never come to know outcomes of meetings.

Across states **information availability on the outcome of meetings is poor**. Minutes are not kept or are not accessible to members; and mechanisms of public communication, such as wall posters, are virtually unheard of. Word of mouth, a medium nuanced by power relations, is the most frequently used mode of communication.

Measured by knowledge of group finances and transactions...

As table 3.12 illustrates, cross states, **the vast majority of members are unaware of how group funds are structured or used and most members do not know the rules governing the use of UG finances**. The most redeeming figure is the one relating to items of expenditure where approximately one third of members in Madhya Pradesh and Andhra

Pradesh knew how funds were spent. Overall, transparency in financial operations is very limited

Table 3.12 Members Awareness of Finances and Transactions

	Uttar Pradesh		Madhya Pradesh		Andhra Pradesh	
	Aware (%)	Not Aware (%)	Aware (%)	Not Aware (%)	Aware (%)	Not Aware (%)
Availability of funds	8	92	20	80	16	84
Amount of funds	10	90	25	75	18	82
What spent on	12	88	35	65	36	64

Source: Individual Questionnaire

Summary of Findings on Transparency

Transparency in the user groups studied is very poor. Members are overwhelmingly unaware of what happens in meetings or of how group finances should be and are managed. *These low levels of transparency make user-groups in these projects open to failure as mechanisms of cooperation and collective action.* At the most obvious level, the obvious implication of poor financial transparency is that, without the scrutiny of an external backstop, the group funds would be vulnerable to misappropriation.

3.4.3 Governance and Accountability

While members' scanty knowledge of group operations and transactions increases opportunities for mis-management and corruption, it may not imply that the rules of the game are ignored. Poor transparency may reduce the probability of trust between members but, if rules of governance and accountability are in place and regarded as dependable, both literature and experience have demonstrated that it is possible for groups to function well without members exhibiting a high level of knowledge of group business.

To test whether or not rules of governance and accountability functioned, information was gathered on members' knowledge of rules relating (i) conducting group business, (ii) selection of representatives, and (iii) holding representatives accountable. The results are described in the following tables.

Measured by knowledge of group business rules...

Table 3.13 Respondents' Knowledge of Rules Governing Group Business

	Uttar Pradesh (%)	Madhya Pradesh (%)	Andhra Pradesh (%)
Aware of Rules	5	34	7
State d No Rules	18	13	42

As the project descriptions in Section 2 outline, rules of operation are either pre-determined (VFCs/FPCs, WUAs and to an extent SICs) or groups are expected to have added to these with their own rules (VFCs/FPCs, SICs). In all cases awareness of business governance is low – and particularly so in Uttar Pradesh and Andhra Pradesh. Even in cases where user groups are encouraged to develop their own rules of operation, it is clear that in the years they have been established this has not occurred.

In terms of gender differences findings differ across states:

- *in Uttar Pradesh:* there was little difference in knowledge of rules between the sexes;
- *in Madhya Pradesh:* male respondents were twice as likely to be aware of rules than female respondents;
- *in Andhra Pradesh:* women members had a 10 percent better grasp of rules than men.

In Uttar Pradesh, richer households had higher levels of awareness of rules than poorer households (perhaps reflecting differing literacy levels) whereas there were no significant differences across poverty ranks in other states. Caste did not play a major role in any state apart from Uttar Pradesh where General Castes had a 10 percent higher knowledge of rules than other groups.

Measured by representative selection procedures...

Despite generally low levels of knowledge of how business should be conducted, the Table 3.14 below, shows group members in Madhya Pradesh and Andhra Pradesh were largely aware of how the Chairperson of the group was chosen. Knowledge was lower with regard to selection of other office bearers with the next highest level of awareness of selection process.

Table 3.14 Respondents' Knowledge of How Representatives are Selected

Uttar Pradesh	Chairman	Member-Sec	Animator (MK/MMK)
	%	%	%
Public vote	5	0	0
Secret ballot	0	0	0
Group discussion	9	3	4
Self appointed	2	1	1
Mandated	9	0	0
Nominated	10	0	0
Don't know	66	96	95
Madhya	Chairman	Vice Chair	Secty. of Exec. Comm.
	%	%	%
Public vote	1	0	0
Secret ballot	1	1	0

Group discussion	71	51	15
Self appointed	0	0	1
Mandated	0	0	23
Nominated	0	0	0
Don't know	27	48	62
Andhra	President	TC Rep.	
	%	%	
Public vote	6	3	
Secret ballot	45	12	
Group discussion	34	24	
Self appointed	1	0	
Mandated	1	1	
Nominated	1	0	
Don't know	11	59	
Source: Individual Questionnaire			

Members' generally low levels of knowledge over rules of business combined with reasonable levels of knowledge in Andhra Pradesh and Madhya Pradesh on selection of representatives could be construed to reflect a high degree of faith in representatives. This was tested by asking respondents who knew who their representatives were, how satisfied they were with each office bearers' performance. Results are given in Table 3.18 below.

Table 3.15 Members Satisfaction with Representatives

	Satisfied	Dissatisfied	Don't Know
	%	%	%
Uttar Pradesh			
Chairman	28	6	66
Member – Secretary	3	1	96
Animator	13	1	86
Madhya Pradesh			
Chairman	74	8	18
Vice Chairman	51	3	46
Secretary	43	3	54
Andhra Pradesh			
President	80	2	18
TC Rep.	41	1	58
Source: Individual Questionnaire			

- *In Uttar Pradesh:* The majority of members were unaware of how representatives perform.
- *In Madhya Pradesh:* In general, members appeared satisfied with the actions of the Chairman. There was less overall satisfaction with other representatives and nearly half of all respondents felt they did not know enough about these other representatives to comment.

- *In Andhra Pradesh:* Regardless of levels of knowledge of how the Chairman was selected, most WUA members were satisfied with the Chairman's performance. While members were less satisfied with Technical Committee representatives the majority of respondents had no knowledge of how this person performed.

Chairmen appear generally to be viewed as performing well. Given the low levels of awareness of the rules of business and selection of representatives, this implies a high degree of dependence on and trust in one individual. This, combined with relatively low levels of satisfaction with other representatives, indicates a need for robust and functional accountability mechanisms. But do group members know that they can hold these office bearers accountable?

Measured by awareness and use of accountability rules...

When asked if they were aware of any rules they could use if a representative did something that the member disagreed with, the following answers were given.

Table 3.16 Members Awareness of Representative Accountability Rules

	Aware of rules	
	% Yes	% No/Don't know
Uttar Pradesh	4	96
Madhya Pradesh	35	65
Andhra Pradesh	7	93

Source: Individual Questionnaire

In Uttar Pradesh and Andhra Pradesh most respondents had no knowledge of rules for holding representatives accountable. In Madhya Pradesh one third said they did know of such rules. As with rules of business, in Uttar Pradesh poorer households were less likely to know of accountability rules, in Madhya Pradesh women had lower knowledge levels and in Andhra Pradesh women had a better grasp of accountability rules.

Given that only in Madhya Pradesh was there any significant awareness of rules, it was only here that follow up questions on what those rules were and how effective their use had been, could be meaningfully applied. However, responses made it clear that members rarely took action, preferring to use re-election as the mechanism for displacing unsatisfactory representatives.

Summary of findings on governance and accountability

Group members have *low levels of awareness of the rules of business and rules for holding representatives accountable*. In Madhya Pradesh and Andhra Pradesh the majority of members were aware of how Chairmen were elected but in Andhra Pradesh most had no knowledge or thought they were nominated by project staff. Understanding of how other representatives were selected varied but was less than expected for groups

belonging to the same locality. *Members displayed very little interest in group governance and even when aware of accountability mechanisms did not generally use them.* This, combined with poor indicators of transparency, makes *groups very vulnerable to co-option, corruption and mismanagement.*

4. DISCUSSION AND CONCLUSIONS

This study was approached as action research and its methodology was designed with two simple objectives: to enhance understanding of current levels of inclusiveness and effectiveness (measured against the objectives of different stakeholders) of the community level groups in World Bank aided rural development projects; and to draw out issues critical to current support and future design of such organizations. The study did not seek to test theory, but to provide operationally useful findings through a snapshot of user groups' effectiveness and inclusiveness. As Box 4.1 illustrates, several clear and unambiguous messages emerge from the data.

Box 4.1 Summary of Findings

On achievements:

- Members perceive user groups to be valuable to them and to largely achieve their formal objectives.
- Members perceptions of the purpose of user groups differs from those of project designers and implementers.
- Members perceive user groups merely a means of accessing short term benefits rather than as a mechanism of cooperation for long term collective action.

On participation:

- Attendance of meetings is low.
- Wealthier people attend meetings more consistently than do the poorest in the states wherein social position is associated with wealth and education.
- Women's participation in meetings is rare. They are also unlikely to be representatives.
- There is no association between wealth and holding a representatives position.
- A high degree of involvement of project staff in decision making associated with low levels of member participation in decision making.
- The more highly networked a member, the more likely is s/he to participate in and value user groups and their achievement of formal objectives.
- Benefits are relatively well distributed among members.
- Members are receiving the benefits they expected.

On transparency:

- Information availability about group meetings is poor.
- Members have little knowledge of group finances or transactions.

On governance and accountability:

- Transparency in user group operation is poor.
- Awareness of the rules of business and accountability is very low.

These findings highlight issues of particular importance in the design and support of user groups and can be interpreted and used in two ways. For example, the gap between the findings and the expectations of project designers has clear operational implications that yield practical recommendations such as those outlined in Box 4.2. However, while developing responses of this type is appropriate at a project level -- where study results

provide a basis for planning action in support of more transparent and accountable user groups -- the purpose of this report is to use findings to articulate cross cutting lessons rather than to concentrate exclusively on project specific action planning. The fact that group members can be satisfied with their groups and with the distribution of benefits even though most do not actively participate in meetings or decision-making, for instance, raises larger questions regarding broad-based user participation in resource management, its ultimate value and the most appropriate mechanisms for achieving effective local management..

Box 4.2 Response to Findings

A key finding is that data strongly suggest that project designers and implementers need to address the conditions which lead to perceptions of user groups primarily as mechanisms appropriate for channelling of short-term benefits. This is essential if members are to vest in user groups in a manner supportive of long term cooperation over asset and benefit management. Clearly, projects must raise awareness of the importance of long-term cooperation for a continuing flow of benefits in the future; and a sense of ownership must be promoted among rank and file members of these groups.. Action to support this could include:

- improving information availability – both about when meetings are to take place and what occurs during meetings. This should increase attendance and ownership of group decisions and activities;
- increasing members’ awareness of user group rules and ensuring that those rules function effectively. This would reduce opportunities for corruption or cooption and should increase members’ belief in the user group as a mechanism for managing cooperation, rather than just channeling benefits from a project management unit to beneficiaries;
- pro-actively address women’s knowledge of and interest in user-group activities and outcomes. If empowerment of women as equal agents in development processes is an objective of projects, this is crucial.

Drawing out generalized messages to develop more strategic responses requires a second level of interpretation which involves cross referencing findings, both within and between projects, and embedding this in the broader conceptual and empirical context which framed the analytic focus of this work. The following section therefore focuses on the three aspects of user groups or local organizations commonly considered critical to decentralized management and implementation of projects -- effectiveness, equity and sustainability. These are frequently referenced in project design, monitoring and performance appraisals and are used to structure the following discussion of issues critical in the design and support of user groups.

4.1 Effectiveness

Around eighty three percent of members rated the overall performance of user groups highly or satisfactory and well over half of all respondents felt that groups’ ability to meet formal objectives was good or reasonable. Both figures indicate that, from a members perspective, user groups in the projects studied are considered effective. These findings are however based on perceptual data, and members’ expectations of user groups will be

conditioned by past experience of both collective action and the functioning of externally induced local organizations. Typically, these past experiences have not been positive, and do not lead to a high level of expectation – particularly with regard to the egalitarianism or the long-term sustainability of such collective action initiatives. While such information is valid and useful, therefore, it is therefore likely to reflect a circumscribed vision of what is achievable in terms of outcomes and democratic process. The findings of this study bear this out and highlight some important messages for those designing and supporting user groups.

The gap between the overall evaluations of groups and the achievement of formal objectives implies that the perceptions of members and project designers/implementers differ in terms of user group objectives. Data support this hypothesis and indicate that members' objectives are very specific and more associated with satisfaction of immediate and discrete individual benefits rather than the broader concern of consensus and collective management which is a prominent theme in project documentation. Box 4.2 outlined one set of responses to this finding, but extending the analysis allows a broader response. Cooperation in the user groups studied is regarded by members as a means to immediate individual ends – such as the receipt of fertilizer, seeds or other inputs -- and there is little belief that cooperation will extend beyond the life of the project or without continued support from implementing agency staff. Members appear to have little faith in the potential of the organizations themselves to achieve continuity and to continue to deliver benefits. Again, this may be based on prior experience with local organizations. If local resources and initiatives were found to be easily captured by the wealthy or high-caste households in the past, then group members may expect traditional patterns to re-assert themselves in the user groups once they are independent of the project. This leads to the conclusion that:

- *user groups are unlikely to be of sustained interest to members until the longer term benefits of cooperation become tangible.* Members must become convinced that they can continue to improve their household well-being in the future by cooperating to manage and maintain the collective resource effectively. Action to address this would be resource and context specific and dependent on implementing agents' commitment to the continuation of benefit streams beyond the project period. If the project vision includes supplying continued benefits, this finding suggests that project staff forming groups need sufficient skills, time and flexibility in objectives to work with potential members in identifying the relative importance of different benefits and developing appropriate and phased approaches to achieving and building on outcomes. Entry point activities, which only partially reflect the ultimate objective of a project, have proved useful to developing skills and faith in collective action, as has building into projects community or group level learning and management opportunities – such as local level monitoring and decision systems -- once early or entry point benefits have been realized. Depending on approach, this may either demand increased intensity of support by project staff or extending the time horizon for achieving outcomes.

User groups are effective in terms of generally delivering what members expect of them but appear to, as yet, have limited effectiveness in changing villagers' perceptions of what a project related user group can or should do, or in establishing group action and cooperation among members. In other words:

- *members' perceptions of the purpose and performance of user groups are limited.* This needs to change if the vision of user groups as long term managers of resources is to be realized. Again, responses to this finding would be project and context specific, but could include developing realistic formal objectives for user groups, phasing expectations of achievements if project designers have a vision which exceeds that of user-group members, and building in activities and time for user group members to reflect and reassess options for cooperation and management of shared assets and benefits.

There is also evidence that the user groups have, in fact, been effective in managing the resources for which they are responsible. In Madhya Pradesh and Andhra Pradesh, members had experience of collective action in relation to forests or irrigation prior to the project, in that indigenous systems for management of these resources were already in existence. The projects, through formalizing membership of the user group, legitimizing local governance and providing some codes of conduct, generally improved management of the resource. In Uttar Pradesh, it is highly unlikely that there would have been reclamation of sodic soil on the scale now found unless the project and its user groups had been operational.

However, while all projects are currently effective in certain ways, the capability of these organizations to handle serious problems independently is questionable. In particular, difficulties or conflicts arising from scarcity or from attempts to co-opt resources, are challenges these groups may not be able to meet. For example: in Andhra Pradesh, when problems arose over equity in water access and use, group members felt that they needed recourse to a higher authority. In Uttar Pradesh, it was felt that equity in distribution of gypsum and fertilizer only occurred when project staff were present; and in Madhya Pradesh, project staff were considered necessary "to rule" the VFs. From these experiences, it is apparent that at present:

- *members of user groups expect, or need, an external backstop.* While common, this requirement is rarely articulated or explicitly addressed in project action plans. User groups are conceived as project specific entities operating largely in isolation of their local social and organizational context and as such are designed to establish relations with the implementing agents rather than any other organization. Those designing projects could benefit from more overtly accepting and considering this role in both the long and short term, or better embedding the user group in the local organizational context. Overall, very few user groups had made any contact with their local elected representatives or any panchayat raj organization. In

consequence, there was virtually no contact with line departments other than those implementing the project or other government agencies involved in development activities, and in most locations linkages with non-government organizations was unrelated to a user group's needs. However, the data demonstrate a positive association both between (a) the density of organizations present in a location and rating of user groups' value, and (b) the degree to which a person is networked and their assessment of achievement of formal objectives. While this needs further research, these findings suggest that user groups may be more effective and considered useful by members if they were better embedded in the local organizational landscape. In particular, in the light of recent efforts to decentralize management of development to local elected bodies, it would be appropriate for designers and implementers of projects to consider forging better relations with, and possibly passing over such functions as monitoring or higher level governance to gram sarkhars, gram panchayats and zilla parishads.

To a degree, the dependence on an external executing agent can be attributed to history. In the last fifty years government departments have frequently operated in a paternalistic manner. Government staff largely controlled access to benefits of development and any induced local organizations have usually been governed by them. They tended to work in isolation of each other and of any other local organizational actors. A linear dependency on external facilitators and upholders of rules has become a norm which has been carried over into situations where local stakeholders are, in theory, expected to take responsibility for governance and management. However, in the three projects studied, low attendance rates, poor levels of knowledge of group transactions and finance and weak knowledge of business and governance rules all indicate:

- *little ownership or individual sense of responsibility for the functioning of the user group by members.* Project implementers are driven by the incentive system of the project in which they work to meet targets, disburse funds and demonstrate concrete actions. While this initiates action and the distribution of project benefits it undermines their ability to work closely with stakeholders in developing ownership and understanding of group objectives (see box 4.3). As our data show for all projects, user groups thus become instruments for delivering benefits, but the apparent passivity of members raises the question of how far they are really needed in the process of resource management or benefit distribution. If the objective of a project is to disburse and deliver – which is what is successfully achieved in all the projects studied -- then formalizing user groups may not be the most cost-effective approach. Much discussion and the development of user groups presupposes their usefulness and cost-effectiveness whereas in certain circumstances, it may be better to rely on an effective implementing agent and his/her interface with beneficiaries, rather than waste resources in establishing non-functional local organizations. If, however, the objective is to establish a sustainable local resource and benefits management unit, then implementing agents have to better assess what degree of

responsibility is required of members and which structures and processes are best suited to developing a transparent and accountable local organization or user group.

In short, *user groups may not, in every case, be the optimal solution to the question of how resources will be managed at the local level.* In part, the decision to deploy, or not deploy, user groups should be resource specific. As noted above, different time and scheduling commitments are required for the management of different resources, Maintaining an irrigation system requires frequent clearing and repair of channels on a continuing basis, for example, while forest protection does not call for a high level of activity. What is more, management of some resources – such as handpump repair -- requires a higher level of expertise than do others. It is possible that formalizing an existing user group or organizing a new one may be the most appropriate approach in one case, while in the other, users could pool funds and hire a small commercial contractor to carry out management and maintenance functions. If management services are contracted, then users who have little interest in attending meetings or carrying out management asks would be freed of such obligations.

Box 4.3 Group Development Processes and Impact.

In Uttar Pradesh: “There is lack of clarity about the project and its intentions amongst farmers...project staff interactions have been limited to a few people...dissemination of information about the project was concentrated in the main village or hamlet... the group process is missing...the concept of a SIC has not worked very well...people are more interested in water user groups as it is here that financial transactions and other activities take place” (Village Summaries). “Project staff have played a dominating role in the SIC meetings (and overall) thus hampered a process of institution building in the SIC. The SIC has not been used as a means to create a participatory approach to implementing the project...it is used to deliver inputs” (Focus Groups).

In Madhya Pradesh, Bilaspur: “Forest department staff have been given total responsibility for implementation...they run the VFCs...hence, villagers have little idea about forest related benefit-sharing mechanisms...(they) have no idea of the rules and regulations of the group or Executive Committee... VFCs operate in a mechanical manner, there is lack of innovation”. (Village Summaries) “ In discussions on what the VFC should do ...the majority of groups said develop irrigation facilities in the villages, provide better credit facilities and improve drinking water and electricity supplies. Villagers placed more emphasis on the role of the VFC as an overall development organization and as an opportunity for wage employment rather than forest management” (Focus Groups).

In Madhya Pradesh, Kanker: “FPCs have been formed in a very quickly..the Executive Committee is formed in a very mechanical way..villagers are not consulted when VRDP development works are taken up..there is little transparency...”(Village Summaries). “The most common suggestion for how to improve the FPC is to increase financial assistance to the group which can in turn extend financial support to households or generate labor work through construction projects” (Focus Groups).

In Andhra Pradesh: “WUAs have been formed in a rapid manner with the result that people are little aware of the functions, roles, responsibilities etc....meetings are only organized when there is some implementation of works” (Village Summaries). “Suggestions for improvement include specification of the powers of the WUA, better cooperation between and participation in the group by farmers, better awareness of the WUA and the act and better collective planning” (Focus Groups).

4.2 Equity

Members' perceptions of effectiveness are influenced by what they expect of user groups and the benefits they receive. As the previous discussion noted, expectations are conditioned by history and social context. In Andhra Pradesh and Uttar Pradesh, where the village summaries and focus group reports tell us that power relations in village society continue to be shaped by caste affiliations and traditional gender perceptions, it could be anticipated that expectations and benefits would be influenced by a person's social positioning. However, the data indicate that expectations of benefits, apart from gendered differences, vary little across social groups. Women expected less of user groups than men but no caste or tribal group anticipated different quantities of, or specific types of, benefit. Expectations by economic group varied across projects, but these differences can be attributed to respondents' concern to maximize those benefits primarily associated with a her/his household's livelihood portfolio. This tells us that:

- *a user group is of most interest to members when its activities are closely associated with key aspects of a household's livelihood portfolio or a household member's livelihood activities. Therefore, expectations of villagers' participation in, and commitment to, user groups should reflect this reality. Interest in many activities varies within, and between households, and participation rates will reflect that. If project activities are of immediate interest to women, special efforts – such as forming sub-groups and providing collective support during interaction with the broader membership – assists in overcoming their own, and society's, reluctance for them to participate in public debate and action.*

A powerful finding of this study is that, despite the hierarchical social context in which two of the projects are set and generally low levels of attendance in group meetings, the distribution of benefits was not biased towards or against any particular social group. Conventional wisdom is often challenged by research, and in India there are signs that traditional patterns of capability and endowment associated with caste positioning are slowly changing. The findings of this study are interesting as in two states (Uttar Pradesh and Andhra Pradesh) caste positioning is strongly associated with education and wealth – both of which affect a person's capacity to take advantage of new opportunities. Caste is therefore often hypothesized as a determinant of a person's ability to access and use the benefits of development. In Uttar Pradesh and Andhra Pradesh, the outcomes of focus group discussions and village summaries supported this assumption and indicated that caste identity, wealth, power and receipt of benefits were closely linked. However, our quantitative data do not show any clear or generalizable association between poverty or caste and receipt of benefits. This suggests two things: first, that information collected using certain forms of interactive technique may be based on past experience of how social grouping affects opportunity rather than on current realities; and second, that either in some places social and economic endowments no longer affect a person's capacity to access and use development opportunity, or that in certain of the projects, the process of

implementation has controlled for caste and wealth based inequalities. The data on how user groups function and the descriptions of relations with project staff from the narrative findings, show that:

- *the role of project staff was critical to equitable distribution of benefits.* In Uttar Pradesh, where project staff dominated user group business, there was a positive association between belonging to a scheduled caste household and receipt of benefits. However, in Andhra Pradesh, where project staff had little to do with WUA operations, poorer households – who were more likely to belong to the scheduled caste group than any other social category -- were less likely to benefit from improvements in irrigation systems than those with larger holdings. It seems that if projects are operating in areas where caste and wealth have traditionally been associated with benefits from development opportunities, measures to counteract this tendency are needed. In Andhra Pradesh, where caste based power and politics negatively affected WUA functioning, members called for higher levels of input by project staff. In Uttar Pradesh, project staff successfully played the role of the equity-police -- but whether equity will prevail post-project in a situation where few people attend meetings, few know how the SIC operates and fewer are aware of rules of accountability and governance, is questionable. This suggests that in the early days of building and supporting user groups, it is essential to establish, publicize and demonstrate the effectiveness of the ground rules for benefit distribution.

Equity is a concept closely associated with empowerment.³⁰ Underlying this association is the belief that people with lower levels of capacity than others have to be empowered if a project is to achieve equity outcomes. Project documentation often refers to user groups as the mechanisms for empowerment of project beneficiaries. The group is supposed to act as a structured entity, charged with certain rights and responsibilities, and to host certain rules for equitable management of assets and activities. In this context empowerment has two dimensions. First,

- *the mandate of the user group defines the parameters of group empowerment.* In most projects, and certainly in the three studied, empowerment is limited -- by design -- to specific aspects of a resource, and is bounded by the sector and the group's location (i.e. a village or water management area). The term empowerment is used in most project documentation in a manner which leaves the degree of empowerment of project participants open to the reader to interpret. This interpretation often leads to a vision, supported by poorly defined group objectives and broad monitoring indicators, of social and economic empowerment which is beyond a SIC, FC or WUA. A social system that has developed over centuries is unlikely to be transformed quickly by the establishment of one externally induced organization whose membership is limited to a small segment of the community (the resource users). This is particularly the case when the user group operates

³⁰ Empowerment is defined as the capacity of a group or person to access and use opportunity.

independently of other local institutions. Clarity in articulating the nature and degree of empowerment that may feasibly be expected to result from the project and the user group is essential during project design, as it both assists in setting realizable objectives for both projects and user groups and in better defining realistic monitoring indicators. A project induced user group may have secondary empowerment effects for a group of individuals, but in each of the projects studied, in addition to the sectoral and spatial boundaries, the manner in which groups had been formed (see Box 4.3), the degree of dependence on external agents (see Table 3.13 on decision making) and the very circumscribed role which members perceived for the group (see Section 3, section 3 on members objectives, and focus group discussions on how to improve group performance) indicated that the processes of group establishment and management further limited empowerment. If empowerment of the group in its broader social and organizational setting is important in a project, this objective has to be explicit and acted upon in strategies for building and supporting project induced organizations.

Second,

- *empowerment of individual members is dependent on high levels of user-group transparency combined with agreed, equitable and effective rules of engagement.* This will ensure that members, irrespective of economic or social positioning, have equal opportunity to access and use the benefits which a group manages and controls. At present in the user groups studied, transparency is poor, accountability is non-existent, awareness of the rules of engagement is meager and, in Uttar Pradesh and Andhra Pradesh, participation in group business by members is very low. Under these conditions, individual members cannot be said to be empowered even within the confines of the group's mandate. If empowerment, even sectorally and spatially bounded empowerment, is a stated objective of the project and user groups are perceived as the means to this end, attention has to be paid to defining, disseminating and effectively using a group's rules of engagement. Without this, user groups are unlikely to contribute to any kind of empowerment of weaker individuals in society.

4.3 Sustainability

Like empowerment, sustainability is a term as loosely used as it is broadly interpreted. Project documentation can leave a reader asking, sustainability of what and for how long?

- *User groups in each of the projects studied were conceived as both **sustainable organizations** and as mechanisms to ensure **sustainable benefit streams**.* Differentiating between these is important to decisions on the form and function of a project induced local organization. In all three projects the activities in which the user groups were engaged changed, in some way, over time and in two of the projects the nature of benefits also evolved. Organizational forms and functions,

and expectations of what would be achieved and monitored thus needed to reflect the dynamic aspect of sustainability. In project terms clarity on both the subject and temporal nature of sustainability would enable realistic objectives to be set, appropriate support strategies designed and flexible monitoring indicators to be devised.

- *A sustainable flow of benefits may not always depend upon the sustainability of the organization.* An organizational form that was appropriate at the outset of the project may be subject to change as development outcomes evolve. Some organizations may be useful as short term mechanisms to ensure flows of benefits, which once established can continue without a hosting organization – such as a savings and credit group whose sole purpose is to establish good practice and credit worthiness of members so that bank loans can be individually accessed. Other induced organizations may change their purpose, form and functioning as the requirements of benefit streams evolve or discontinue – such as a women’s self-help group which started with an entry point activity of savings and credit and then moved on to health or political empowerment concerns. In Madhya Pradesh, the nature of business of the user group changed when VRDP funds and associated benefit streams became available. This brought increases in levels of attendance along with increased member participation in decision making. Respondents made it clear that from this point onwards their primary interest in the VFC or FPC related more to the benefits derived from the village fund rather than to management of forests and their products. VFC/FPC objectives had thus been extended and re-prioritized from original expectations. In Uttar Pradesh, the SIC was perceived mainly as a source of inputs – principally gypsum and fertilizer. Once soil had been treated and farmers were aware of management practices their interest in the SIC, which they perceived as a means to these ends rather than a unit for long term management of collective resources, decreased. It would be unrealistic, and impose too much rigidity, if detailed plans to deal with change were included in early project documentation. However, consistently articulated principles explicitly recognizing and allowing for responses to the dynamic nature of interventions are a prerequisite to developing groups able to respond to change.

To a great extent, the dual interpretation of sustainability i.e. of both *groups* and *benefit streams*, was appropriate to the overall objective of all projects as the cooperation and collective action required for long term management of resources needed a sustainable user group if benefit streams were to continue beyond the project. Nevertheless, as Box 4.3 illustrated in the project’s studied,

- *current processes of group development were unlikely to support either sustained groups or benefits.* User groups are key mechanisms in the implementation of decentralized projects, yet in all three projects studied, processes of group formation and support activities were limited to activities which responded to project staff incentive systems rather than group needs. The behavior of implementing agency staff appears to be bounded by the time frame and targets of

the projects -- groups were established more on paper than in practice, and emphasis appears to have been placed on delivery of short term benefits. In addition to the lack of incentive (for users?) to invest in user groups, staff are often unskilled in organizational management, lack the time required to work creatively with local groups and – sometimes understandably – have basic questions about the need for a fully inclusive and active user group.

- Two questions arise from these findings: first, is it appropriate for a resource management project to invest establishing or regularizing in a user group at all? And second, if a user group is appropriate, how can its development be matched with its objectives and related roles and responsibilities?. The question of the value added of user groups in projects was touched upon earlier in the discussion on member's sense of ownership and responsibility for group governance and action. Separating and comparing project and user group objectives is a key step in assessing cost-effectiveness. If project planners and users' objectives, both long and short term, do not complement each other, there are fundamental questions to be raised about the value of investing in user groups or, alternatively, expectations regarding their functioning should be revised. In sum, either groups should not figure in the project implementation arrangements or the vision of their role and function should be reviewed and rearticulated. If user group objectives support project objectives, then these groups can be of significant value in ensuring the effective performance of project-related tasks, in either the short or longer term. Under these conditions, user groups could be essential to the longer term sustainability of benefits. If this is the case our evidence suggests that the role of project, or implementing agency, staff will be critical. If they are to play this role, staff need to be well briefed, possess organization building skills and be oriented to participatory, client driven development.

If sustainability of user groups and benefits are of concern to project teams – both client and World Bank – there needs to be a clearer understanding of group and project objectives. Designers and implementers can no longer afford to accord such low priority to the process through which user groups are established and developed.

4.4 Operational Implications

- User groups are judged to be effective by their members, but members' expectations are constrained by their past experience of cooperation and their perceptions of the purpose and function of externally induced organizations. If user groups are to transcend this limiting perspective, projects need to develop processes which build members' confidence in cooperation and their ability to envisage a future free of the past.
- External support from project staff may be an early requirement of user groups. What is more, user group sustainability after the life of the project may depend upon whether or not this role can be transferred to another agency or individual. This needs to be explicitly recognized and built into project activities. The project-

specific functions of this role will determine if it needs to continue and whether or not other organizational or individual actors can fill the need in the future. If ongoing support is needed, then project staff should attempt to identify agents or individuals (perhaps NGO or panchayati raj officials; see below) who can fill this role after project termination.

- Project staff behavior is generally antithetical to that required for the development and support of robust local organizations. The organizational incentives and institutional conditions of implementing agencies need adjusting to encourage and equip staff to work in a manner supportive of local level resource control and management.
- User groups are poorly embedded in the local organizational environment. Post project performance may depend on reducing isolation of project induced groups and better integrating their actions and governance with existing organizations involved in local development. In particular, panchayat raj organizations may be well positioned to assume certain post project roles and responsibilities.
- Members of project induced groups demonstrate little ownership of the organizations activities or governance. While this may be appropriate for groups which are not intended to survive beyond the duration of a project, it is not supportive of longer term sustainability of a user group. Actions to improve members' identification with the group include improving information availability, raising awareness of group rules, and strengthening the effectiveness of accountability mechanisms.
- The importance of a group's core activities to the livelihood portfolio of each individual member determines the level of interest that a member displays in it. This implies that project staff have to accept differential levels of interest within a beneficiary group.
- Women are excluded from most activities associated with user groups. If women represent an interest group in a project or its user group, gender strategies and action plans are required.
- Project staff can mitigate the effects of existing power relations in villages by ensuring equitable distribution of project benefits. However, this is a short term solution. User group members who wield less power have to be equipped with institutions that work post-project to mitigate these relations. Solutions again depend on greater transparency of group operation, better information availability and reliable accountability mechanisms.
- Empowerment can either be of a group, where it takes control of certain resources and benefits, or of individuals, when they are equipped to participate equally in user group business. Clarity on the form, boundaries and temporal coverage of empowerment is essential in developing strategies and action plans.
- Sustainability has two distinct aspects – the sustainability of a group as an organizational entity and the sustainability of benefits streams. Separating these is important to setting realistic objectives, designing appropriate action plans, and defining useful monitoring indicators.

- Finally, there may be times when a user group is not required either during or post-project. Depending upon the nature of the resource and of the social composition of the community, another approach to local management may be more appropriate. As long as an organization is accountable to its clients, certain benefit streams may be more effectively delivered by an existing local organization, a government department or a private sector contracting organization.

REFERENCES

- Adato, Michelle, Timothy Besley, Lawrence Haddad, and John Hoddinott, 1999. "Participation and Poverty Reduction: Issues, Theory and New Evidence from South Africa." Background paper for *World Development Report*
- Agrawal, A. and Gibson, C.C.1999. 'Enchantment and Disenchantment: The Role of Community in Natural Resource Management'. *World Development*, Vol. 27, No.4.
- Agarwal, B.1998. 'Environmental Management, Equity and Ecofeminism: Debating India's experience'. *The Journal of Peasant Studies*, Vol. 25, No.4.
- Ahluwalia, M. (1997) 'Representing Communities: the Case of a Community-Based Watershed Mnagement Project in Rajasthan, India'. *IDS Bulletin*, Vol. 28, No 4.
- Bebbington, A. 1997. 'Social Capital and Rural Intensification: Local Organizations and Islands of Sustainability in the Rural Andes'. *The Geographical Journal*, Vol.163, No. 2.
- Beck, T. and Nesmith, C. 2000. 'Building on Poor People's Capacities: The Case of Common Property Resources in India and West Africa'. *World Development*, Vol. 29, No.1.
- Carney, D.1998. *Sustainable rural livelihoods*. London: Department for International Development
- Cleaver, F. (1999) 'Paradoxes of Participation: Questioning Participatory Approaches to Development'. *Journal of International Development*, Vol.11, No. 4.
- Coleman, J. 1990. *Foundations of Social Theory*. Boston, MA: Harvard University Press
- Donnelly-Roark P, K Ouedragogo & Y Xiao 2000 Local Level Institutions and Poverty Eradication: Rural Decentralization in Burkino Faso, PRSD Africa Region,
- Government of Andhra Pradesh (Government of Andhra Pradesh). 1997. The Andhra Pradesh Farmers' Management of Irrigation Systems Act. Department of Irrigation and Command Area Development . Hyderabad
- Government of Andhra Pradesh (Government of Andhra Pradesh). 1998. The Andhra Pradesh Gazette Part IVA.
- Government of Madhya Pradesh (Government of Madhya Pradesh). 2000. Resolution. No. F16/4//91/10-2. Forest Department, Bhopal dated 7th February 2000.

- Greene, William H. 1993. *Econometric Analysis*, 2nd edition, New York: Macmillan.
- Greene, William H. 1997. *Econometric Analysis*, 3rd edition, New York: Macmillan.
- Grootaert, C. 1999. "Does Social Capital Help the Poor? A Synthesis of Findings from the Local Level Institutions Studies in Bolivia, Burkina Faso and Indonesia." Social Development Department, World Bank, Washington, D.C.
- Lam, W. F. 1998. *Governing Irrigation Systems in Nepal: Institutions, Infrastructure, and Collective Action*. Oakland, CA: ICS Press
- Leach, M., Mearns, M., Scoones, I. (1997) 'Challenges to Community Based Sustainable Development: Dynamics, Entitlements, Institutions'. *IDS Bulletin*, Vol. 28, No.4.
- Long, J.S. 1997. *Regression Models for Categorical and Limited Dependent Variables*, Sage Publications.
- Mehta, L. (1997) 'Social Difference and Water Resources Management: Insights from Kutch , India. *IDS Bulletin*, Vol. 28, No. 4.
- Meinzen-Dick, R. and Zwarteveen, M. 1997. 'Gender Participation in Water Management: Issues and Illustrations from Water Users' Associations in South Asia'. Gender Analysis and Reform of Irrigation Management: Concepts, Cases and Gaps in Knowledge, Proceedings of the Workshop on Gender and Water, 15-19 September, 1997, Harbana, Sri Lanka.
- Mosse, D. 1997. 'The Symbolic Making of a Common Property Resource: History, Ecology, and Locality in a Tank-irrigated landscape in South India'. *Development and Change*, Vol. 28, No. 3.
- Narayan, D with Raj Patel, Kai Schafft, Anne Rademacher and Sarah Koch-Schulte. 2000. *Voices of the Poor: Can anybody hear us?* Washington D.C. World Bank and Oxford University Press.
- Oblitas, J. and Peter, R.J.1999. Transferring Irrigation Management to Farmers in Andhra Pradesh, India. World Bank Technical Paper no 449. Washington D.C. World Bank.
- Ostrom E, 1990. *Governing the Commons: The Evolution of institutions for collective action*. Cambridge: Cambridge University Press.
- Ostrom, E. 1992. *Crafting Institutions for Self-governing Irrigation Systems*. San Fransisco, CA: Institute for Contemporary Studies Press.

- Ostrom, E., L. Schroeder, and S. Wynne. 1993. *Institutional Incentives and Sustainable Development: Infrastructure Policies in Perspective*. Boulder, CO: Westview Press.
- Ostrom E., R. Gardner and J. Walker. 1994. *Rules, Games and Common-Pool Resources*. Ann Arbor, MI: University of Michigan Press.
- Ostrom, O. 1998. 'A Behavioural Approach to the Rational Choice Theory of Collective Action'. *American Political Science Review*, Vol. 92, No 1.
- Poffenberger, M. and McGean, B. (eds). 1996. *Village Voices Forest Choices: Joint Forest Management in India*. New Delhi: Oxford University Press.
- Pretty, J. and Ward, H. 2001. 'Social Capital and the Environment', *World Development*, Vol. 29, No. 2.
- Putnam, R.D. 1995. 'Bowling Alone: America's declining social capital'. *Journal of Democracy*, Vol. 6, No 1.
- Ravallion, M. 1999. "Is More Targeting Consistent With Less Spending?" *International Tax and Public Finance*, 6(3): 411-9.
- Schneider, H. (1999) 'Participatory Governance for poverty reduction'. *Journal of International Development*, Vol.11, No. 4.
- Tang, S.Y. 1992. *Institutions and Collective Action: Self-Governance in Irrigation*. Oakland, CA: ICS Press.
- Uphoff, N and Milton J. Esman and Anirudh Krishna. 1998. *Reasons for Success: Learning from Instructive Experiences in Rural Development*. West Hartford. Kumerian Press.
- Wade, R. 1988. *Village Republics: Economic Conditions for Collective Action in South India*. Cambridge: Cambridge University Press.
- Watson, G., N.V. Jagannathan, R. Geltring and H.E. Beteta. 1997. Part III: Water and Sanitation Associations: Review and Best Practices. In A Subramaniam, N.V. Jagannathan and R. Meinzen-Dick (eds), *User Organizations for Sustainable Water Services*, The World Bank, Washington. D.C.
- World Bank. 1998a. Project Appraisal Document. The Uttar Pradesh Sodic Lands Reclamation II Project
- World Bank 1998b. Project Appraisal Document. Andhra Pradesh Economic Restructuring Programme : Irrigation Component.

World Bank. 1995. Staff Appraisal Report. India. Madhya Pradesh Forestry Sector. South Asia Department II. Agricultural Operations Division.

World Bank. 1996. *The World Bank Participation Sourcebook*. Washington D.C: IBRD, The World Bank.

LITERATURE REVIEW

Agarwal, B.1998. 'Environmental Management, Equity and Ecofeminism: Debating India's experience'. *The Journal of Peasant Studies*. Vol. 25, No.4

It is increasingly being argued that villagers need to be actively involved in managing common lands in order for this to be effective. Building on traditional local institutions is often seen as a way forward. This article argues that traditional institutions are often circumscribed by deep-rooted gender inequalities and that this strategy may enhance patriarchal roles and therefore hinder the development of more gender-balanced resource management institutions. The author cites the example of a program such as JFM which formally includes women as members. Yet social and economic factors such as women's work burden, field staff neglecting to contact women, social rules excluding women from public interaction, a perception that women have little capacity to deal with community affairs, women being constrained to interact without a larger group of women, and a lack of perceiving women and their views as equally important as men's, hinder women's actual participation. Hence, seeking solutions to effective resource management in traditional organizations may not enhance women's role. It is argued that in order to change the status of women in environmental institutions there needs to be a more profound change of women's role within households, the community, the market and also the state.

Agrawal, A. and Gibson, C.C.1999. 'Enchantment and Disenchantment: The Role of Community in Natural Resource Management'. *World Development*, Vol. 27, No.4.

The authors critically examine the notion of 'community' in natural resource management. Although they recognize that the focus on the community is essentially a step in the right direction as it concentrates management locally, they question the tendency to overlook the complexity of a community. Community is often used to refer to a spatial and homogenous social structure with shared norms. However, they argue that there are limits to this understanding of the community and that there is a need to unpack the community and explore its political dimensions. Such an approach will provide a better understanding of the multiple actors and divergent interests within the community and how this informs decision-making.

Ahluwalia, M. 1997. 'Representing Communities: The Case of a Community –Based Watershed Management Project in Rajasthan'. *IDS Bulletin*. Vol. 28, No. 4

There is in India an increasing debate regarding the inability of community-based natural resource management interventions to meet the goals of equity and sustainability. The author argues that one of the main flaws of projects aiming for a community approach is the failure to unpack the 'community' and to realize the problems of 'participation'. With an example of a watershed project in Rajasthan it is demonstrated how social and institutional dimensions at village level influence the outcome of resource management and community involvement. It is

shown how the community needs to be differentiated into groups of stakeholders with diverse interests, needs and stakes in a resource and the need for the various stakeholders to mutually agree on an agenda that will offer a range of opportunities for all involved. Understanding the social context is particularly important in order for resource management projects to create better bargains and livelihood outcomes for groups that are likely to be socially excluded.

Arnold, J.E.M. 1998. 'Managing forests as common property'. *FAO Forestry Paper No. 136*. Rome: FAO.

This study brings together available information about the role of common property as a system of governance and its current relevance to forest management and use. It reviews the historical record of common property systems that have disappeared or survived, and it examines the experience of selected contemporary collective management programs in different countries. The author explores broad factors such as policies, population pressures, suitable economic environment, local factors of organizational capacity and motivation to manage in relation to the available resource and institutional factors at the government level. The author describes the experience of JFM in India as having given communities a formal role in forest protection. However, there is still concern that decision-making is biased towards timber and revenue products and that the opinion of the socially weak sub-groups and women whose primary interests may be for non-wood forest products, are not reflected in decision-making by the Forest Protection Committee's. The existing socio-economic relationships between sub-groups within each FPC determine each groups bargaining power. As a result of formalizing arrangements, some groups that previously had only marginal interest in the forest now have a stake in the forest as a result of their share in resources.

Bebbington, A. 1997. 'Social Capital and Rural Intensification: Local Organizations and Islands of Sustainability in the Rural Andes'. *The Geographical Journal*, Vol.163, No. 2.

In the rural Andes there are many examples of how social capital has facilitated rural communities to improve their livelihoods. The article focuses on 'islands of sustainability' in a region of the Andes characterized by economic impoverishment and migration. The author demonstrates how communities have managed to reverse these trends by better natural resource management and intensified agricultural production. The rural communities pictured have taken charge of their own development not only by managing their resources but also by creating networks and links with external organizations such as NGOs, government, economic institutions and even the market.

Bebbington, A., Chatterjee, M., Dongier, P., Polski, M., Ryan, A., Van Domelen, J. Williams, M. 2000. 'Scaling up Community Driven Development'. In World Bank *Poverty Reduction Strategy Sourcebook*. Part III: Cross-Cutting Techniques. Draft for Comments. April, 20, 2000.

The purpose of this chapter is to facilitate community-driven development as a means to poverty reduction. Development that is led by the community has the potential to become more effective to reduce poverty in situations where communities are well placed to handle development services. However, for this to be successful communities cannot operate in isolation but require

viable links with external institutions and the private sector. There are no blue-print community institutions. Instead, they need to be crafted according to the services and goods that they are to provide and other situation-specific factors. Some key principles to keep in mind while creating institutions relates to: the policy and legal framework; financial options; wider links to processes of decentralization; inclusiveness; and sustainability.

Beck, T. and Nesmith, C. 2000. 'Building on Poor People's Capacities: The Case of Common Property Resources in India and West Africa'. *World Development*, Vol. 29, No.1.

The authors investigate the link between common property resource (CPR) and the poor. With examples from India and West Africa it is illustrated that CPRs are vital sources of livelihoods for poor people as they constitute an important base of their coping strategies during periods of stress. CPRs are therefore much more crucial for the poor than the rich. Privatization and commercialization are, however, resulting in reduced access by the poor to CPRs. Women, who are the prime users of CPRs, are often excluded from their management. Many locally evolved CPR management institutions are eroding as a consequence of modernization and local conflicts. To enable poor people to enhance their control over CPRs it is suggested that more needs to be understood about the power processes that exclude them as well as processes used by the poor to negotiate resource access. Subsequently, policies and interventions must seek to strengthen the capacity of the poor to control CPRs.

Bruns, B. R and Meinzen – Dick, R. S. (eds). 2000. *Negotiating Water Rights*. Vistaar Publications. New Delhi: International Food Policy Research Institute.

This volume is a collection of studies on the issue of water rights in countries around the world and provides a markedly different perspective from conventional treatments of water rights. Instead of focusing only on state law, it recognises that claims are also based on customary law and local practices, in complex forms of legal pluralism. Instead of seeing water rights as fixed and easily defined, the contributors treat them as fluid, and subject to negotiation. The studies emphasize dynamic interaction among groups of users and the governance of water as a common property resource. The book argues that negotiation among stakeholders is necessary to create equitable and efficient solutions to water conflicts. The different case studies demonstrate the wide variety of water rights, conflicts and outcomes. They highlight the importance of involving users directly in negotiations over water rights. The basic idea of the volume is that involving local people in negotiations improves the productivity as well as the equity of water distribution.

In a chapter on India, titled, "Negotiations with an under-informed Bureaucracy: Water Rights on System Tanks in Bihar", Nirmal Sengupta addresses key issues such as:

- interaction between the state and customary rights;
- variety of strategies for claiming water;
- limits of state knowledge,
- local governance and
- reducing transaction costs.

Sengupta's study deals explicitly with the role of an under-informed bureaucracy in 'interpreting' customary water rights. In his introduction, Sengupta writes, "The history of system tanks in the Gaja district of Bihar illustrates how rights to traditional irrigation tanks changed as the colonial and post-independence Indian bureaucracy expanded its influence. Rights are often contested, both in negotiations between settlements and systems, and through reference to state courts and authorities to establish claims. In water rights disputes the legal system is more an instrument of harassment than a clear property rights charter. Ultimately many cases are resolved primarily through self-organization, negotiation among the users outside the ambit of the legal system.

The author concludes in his chapter by saying that " the challenge today, in the context of policies favouring local governance over natural resources, is to find the appropriate balance between government co-ordination, and incentive for local management. Although formal laws and regulations may not be followed in practice, they cannot be ignored, as they form an essential part of the context within which local negotiations take place. The arrangements in any irrigation system constantly change – for environmental, institutional or other reasons. To provide full scope for creative local adaptations to emerge, the state apparatus needs to be flexible in its approaches, based on better information about local conditions."

Cleaver, F. 1997. 'Gendered Incentives and Informal Institutions: Women, Men, and the Management of Water'. *Gender Analysis and Reform of Irrigation Management: Concepts, Cases and Gaps in Knowledge*. Proceedings of the Workshop on Gender and Water, 15-19 September, 1997, Harbana, Sri Lanka.

During the 1980's there has been a trend in water resources management policies to emphasise the role of women in the planning and management of projects. While the author finds the institutional approaches to collective action for water resources management offer a useful analytical framework, it is criticised for ignoring individual actors and the complex social reality, and for focusing on a narrow conception of transaction costs and a reductionist and functionalist view of institutions. "The much-vaunted link between incentives, participation and effective management is questionable if we recognise the delegated nature of much water collection and the substantial involvement of children who are rarely included in decision-making processes about water either at the household or the community level." It is further pointed out that projects that emphasise women's participation through involvement on committees and in the decision-making process do not necessarily benefit those women in need and nor do they always reflect the priorities of such women. There is little evidence that participation on committees is either empowering to women or necessarily efficient in terms of water resource management as it may just be reinforcing their role as 'housekeepers' of the water sources rather than enhancing their decision-making capacities. Beyond the government and donor agency contracts, an alternative management system based on informal networks, customs, practices and 'rules in use' can be detected.

Farrington, J. , Turton, C., James, A.J. (eds). 1999. *Participatory Watershed Development: Challenges for the Twenty-First Century*. New Delhi: Oxford University Press.

The authors highlight, among other things, that successful watershed programs are preconditioned by active local participation. However, adequate attention is seldom paid to defining participation. Participation is a subjective concept which contains elements of politics, power and access to resources. One way of clarifying what forms of participation prevails in an area is to construct a typology of participation that can, for example include: 'passive participation' (people are being told about activities), 'participation in information giving' (people reply to questions posed by researchers or project staff, participation becomes extractive), 'participation by consultation' (outsiders listen to people's views and then define problems and solutions), 'participation for material resources' (for example, people provide labor in return for food), 'functional participation' (people participate by establishing groups as decided by the external organization), 'interactive participation' (analysis, action-plans and group-formation are done jointly by local people and outsiders), and 'self-mobilization' (people take initiatives for participation).

There is a tendency on the part of watershed development programs to implement rather than facilitate resulting in local institutions becoming dependent on the external agency to carry out the activities. Hence, it is common to find that local organisations cease to exist once the project is over implying that assets created may also not be maintained. To enhance sustainability it is thus vital to concentrate on building robust local institutions at the outset. Within such institutions individuals need to know their roles and responsibilities. The management committee needs to be transparent if villagers are to appreciate its works. This necessitates finding ways by which illiterate people can understand financial aspects (such as using visual aids). NGOs often spend a lot of time in developing people's skills, leadership qualities, conflict-resolutions mechanisms, identification of weaker sections etc. Some NGOs have also been successful in creating a situation in which adequate time is given to institutional and social development at village level leading to villagers placing demands on the interventions rather than the external agency simply offering the services. Many NGOs have also worked towards the creation of a watershed fund at village level that can be drawn on to maintain the assets created once the project is over.

Watershed projects must ensure equal participation within the community. Many village communities are displaying a break-down of social solidarity and a move towards increased social stratification. It is not uncommon that individual villagers liaise with local officials for individual gains thus leading to difficulties in establishing local institutions with high degrees of accountability. Watershed programs can positively impact poverty, but must, in order to do so, deal with existing social structures by which the poor are often excluded from knowing as well as exercising their rights. Interventions must seek to harness and build on positive social relations that enhance better land use as well as socio-economic development.

Projects are currently not empowering women to participate along with men. Women are instead perceived as 'disadvantaged' and seen as being in need of welfare development. The failure to realize that women are an integral part of the economy and the problems that projects try to tackle hampers their equal participation. With the change of the livelihood base and more men migrating the need to recognize women as decision-makers in agricultural production has become even more imperative. Existing local social relations constrain women's participation. Their participation is often passive as it is mandatory rather than actual. Furthermore, women are

too often treated as a cohesive units with the same problems and needs. It should be recognized that a few women can not represent the interests of all women. Women need support systems to get involved. Projects should encourage this. It is crucial that project staff is sensitized about gender relations.

Kabeer, N. 2000. 'Social Exclusion, Poverty, and Discrimination: Towards an Analytical Framework'. *IDS Bulletin*, Vol. 31, No 4.

This article critically examines the concept of social exclusion. The author insists that if this concept is to be useful in terms of understanding more about poverty and discrimination in developing countries it needs to be used in a more dynamic way than what is always the case. Kabeer sees two ways in which the term may add value to social policy analysis. Firstly, it is useful as it draws attention to the idea that certain groups may not be involved, and, secondly, that exclusion is often an outcome of social life more generally. However, unless links are made between people, problems and the processes that lead to exclusion the concept does not offer anything new. Social exclusion may be seen as 'a product of institutional rules of membership and access'. When using social exclusion as a part of social policy analysis there is a need to look at the causes and consequences of social exclusion and how to overcome them. She proposes an analytical framework to think about social exclusion along these lines.

Kumar, M. D., Ballabh, V., Pandey, R. and Talati, J. 2000. 'Sustainable Development and Use of Water Resources: Sadguru's Macro-Initiatives in Local Water Harnessing and Management'. Working Paper 150. Institute of Rural Management, Anand, Gujarat, September 2000.

The districts of Panchmahals and Dahod in Gujarat, Banswara in Rajasthan and Jhabua in Madhya Pradesh, which fall in the tribal heartland of India, constitute socially and economically one of the most backward regions of the country. The region has seen one of the highest socio-economic and environmental transitions of our times in the last century. From being a pure hunter and gatherer community to a forest-based closed economy till a few decades back, the rural communities in the region were forced to take up agriculture when the forest was depleted. But, with the poor and degraded lands, agriculture could not sustain the livelihoods for long, and the communities had to migrate *enmasse* to urban areas in search of labor, becoming one of the largest ecological refugees in the country.

Realising the importance of ecological restoration in revitalising the tribal economy and social security, Sadguru Water and Development Foundation, a Dahod-based NGO in Gujarat popularly known as Sadguru, took up major programmes of water, land and biomass improvement. Institutions promoted for the management of the irrigation systems at the village level, and the federation of these village level institutions at the district levels, ensure effective participation of the local communities in the programmes, decentralised management, and overall sustainability of the approach.

This paper is based on a study carried out on the water system built by Sadguru on the Machhan River System including Machhan river and Pat river, which is part of Anas sub-basin of Mahi River Basin. The study critically examines the performance of the water systems created by

Sadguru from the point of view of irrigation and financial performance, cost and benefits, water use sustainability, and sustainability of the physical system created.

The study provides empirical evidence to suggest that the performance of lift irrigation schemes is remarkable in terms of irrigation, income and expenditure and financial outputs and attribute them to the management system. The study also shows that the economic efficiency of water harnessing technology adopted by Sadguru is very high. While the overall physical efficiency of the systems is high, the economic and agronomic efficiencies of water used were found to be relatively less. The study finds that irrigation schemes are highly sustainable from the point of view of water use and sustainability of the physical system.

The study concludes that the management systems existing for the lift irrigation schemes are efficient and sustainable ensuring equity in water pricing and water allocation and most importantly, the federation of lift irrigation co-operatives helps ensure the sustainability of the village lift irrigation co-operatives making them financially viable.

Kumar, M. D., Ballabh, V. and Talati, J. 2000. 'Augmenting or Dividing? Surface Water Management In The Water Scarce River Basin Of Sabarmati'. Working Paper 147. Institute of Rural Management. Anand, Gujarat, India.

The paper is based on a study of irrigation system governance in the Sabarmati River Basin in Gujarat, Western India. It argues that the basin's surface water resources had been grossly over-estimated due to lack of adequate scientific data on the dependable yields. Also, the basin's storage and diversion schemes have been built to capture the "variable runoff", having very low probability of occurrence. This has not only inflated the irrigation benefits from the schemes planned, but also led to increase in cost per unit volume of water captured and over-appropriation of the basin's runoff, with major ecological and environmental consequences. The lack of basin approach to water development planning results in reallocation of the available water rather than adding to the aggregate supplies, leading to conflicts between the traditional users.

The irrigation governance in Sabarmati basin is based on ad hoc and age-old norms, rather than hydrologic system considerations, making efficient planning and management an impossible task. Further, the co-ordination structure established to plan, build, operate and manage the irrigation schemes in the basin is not in congruence with the type of human relations and inter actions demanded by the configuration of the existing physical systems, leading to sub-optimal utilisation of irrigation water. For efficient and optimum water allocation planning and water management, the authors suggest, the various levels in the organizational hierarchy need to be re-constituted on the basis of hydrologic units- rivers to rivers systems to sub-basins to basin. Further, the new governance structure should encourage co-ordination between operational units within and across levels in the organisational hierarchy, as demanded by the inter action existing between the physical/ hydraulic systems being managed by them.

The authors conclude that, the Narmada Water Resources and Water Supply Department has adopted a "top-down" and "centralised" approach for planning, execution, operation and management of the irrigation systems. The governance system is not appropriate for effective planning of water resources in the basin and is, at best, suited to operate individual schemes that

are hydraulically independent. The governance structure does not encourage human interactions as demanded by the interaction between the hydraulic systems being governed. In view of this, the different levels in the organisational hierarchy- Circles, Divisions, Sub-divisions- of Narmada Water Resources and Water Supply Department need to be reconstituted at the level of the hydrological units-the basin, sub-basin, river systems and individual schemes. The interaction/co-ordination between different operational units (that are within and across levels in the hierarchy), which manage physical systems that are hydraulically inter-related should be accepted as a basic principle in deciding the governance structure.

Leeuwis, C. 2000. 'Reconceptualizing Participation for Sustainable Rural Development: Towards a Negotiation Approach'. *Development and Change*, Vol. 31, No.5.

The concept and methodologies of 'participation' continue to be at the forefront of the 'sustainable rural development' discourse. The author argues that the participatory approach is foremost used as a planning or a learning exercise. While such approaches recognize multiple stakeholders, they do not effectively deal with the conflicts that often arise as people strategize for or struggle over resources. The author argues that negotiation theory may offer more practical mechanisms for conflict-resolution. 'Integrative' negotiation implies that stakeholders develop a broader understanding of the problems which provide a better ground for creating a solution that all can gain from. This approach will work best in situations where people are willing to negotiate.

Mehra, R. and Esim, S. 1997. 'What Gender Analysis Can Contribute to Irrigation Research and Practice in Developing Countries: Some Issues'. *Gender Analysis and Reform of Irrigation Management: Concepts, Cases and Gaps in Knowledge. Proceedings of the Workshop on Gender and Water, 15-19 September, 1997, Harbana, Sri Lanka.*

With the growing emphasis on users in irrigation research, there is a need to identify the varieties of users and uses of irrigation water. The authors point out that women are not 'officially' recognised as farmers and irrigators. They then say, "when a set of users is not involved in management, as women often are not, expectations of success based on user incentives and improved information may be inaccurate." They cite a study in Chattis Mauja in Nepal where women successfully negotiate their water demands informally. Men and women have different information networks and thus excluding women may lead to an information gap. They stress the need for both quantitative and qualitative research in this area for a deeper understanding of women's information channels.

Meinzen-Dick, R. and Zwarteveen, M. 1997. 'Gender Participation in Water Management: Issues and Illustrations from Water Users' Associations in South Asia'. *Gender Analysis and Reform of Irrigation Management: Concepts, Cases and Gaps in Knowledge. Proceedings of the Workshop on Gender and Water, 15-19 September, 1997, Harbana, Sri Lanka.*

The devolution of irrigation management responsibility from the state to local users has ignored the interplay of intra-community power differences with reference to equity and efficiency considerations. The authors find that women's participation has been minimal in South Asia. The

basic cause attributed to their exclusion is the formal and informal membership rules. Moreover, for most women the costs of participation outweigh the benefits because compliance with the rules and regulations lead to considerable time costs and social risks. In such cases, other and informal ways maybe more effective but they also tend to be less secure. Enhanced formal participation will lead to the strengthening of women's bargaining position as resources users within households and communities. This would also enable better compliance with the rules and regulations. The authors then stress the need for further comparative research in this area to identify the major factors that affect participation, which is a prerequisite for a successful transfer of control over resources from the state to the local community.

Mehta, L. 1997. 'Social Difference and Water Resource Management: Insights from Kutch, India'. *IDS Bulletin*. Vol. 28, No. 4

Community-based resource development poses several problems as communities are often fragmented into resource users with diverse priorities and stakes. Development practitioners have a tendency to liaise with the more powerful and articulate and disregard details of the local social context of users as this can be a complex and time-consuming task. It is suggested that development interventions should consider social equity and change as a fundamental part of any ecological project. This, in turn, necessitates an approach that is explicitly biased towards groups that could easily get excluded. Unless this is done, resource interventions will continue to play right in the hands of village elite and reproduce existing local inequalities.

Mosse, D. 1997. 'The Symbolic Making of a Common Property Resource: History, Ecology, and Locality in a Tank-irrigated landscape in South India'. *Development and Change*. Vol. 28, No. 3

Underpinned by theories of collective action there is currently a widespread consensus that 'communities' should manage common natural resources. The writer argues that resource management is often narrowly interpreted in economic terms, and calls for understanding people's symbolic interest in resource management as a part of wider social and political interests. The article explains how water management can be understood as a part of existing local social organization. Development interventions do not only provide communities with material resources, but also opportunities to reproduce or negotiate local social relations. Strategic support to access and control of water to certain groups can enhance their entitlements and contribute to a process of social change.

Poffenberger, M. and McGean, B. (eds). 1996. *Village Voices Forest Choices: Joint Forest Management in India*. New Delhi: Oxford University Press.

With a focus on forest management the authors of this book bring out a number of dynamics impinging on community organization in relation to natural resource management in India. One of the overall messages is that India's forests can best be saved by relying on local resource management initiatives while ensuring tenurial security and management rights to communities protecting forests. Consequently, donor agencies and politicians need to consider assistance beyond financial support to state forest departments and initiate public land reform as part of the agenda for enhanced local control over natural resources.

In terms of successful community forest management it is generally observed that small homogenous community groups often perform better vis-a-vis resource management. The dependence on the resource tends to be similar in such communities which makes decision-making easier. High dependence on a resource is often a key factor for viable forest protection. In large heterogeneous communities the stakes in the resource often vary leading to lack of interest by certain groups. To make community organization more effective villagers are in some areas only including the actual users of the forest in their management system. Organizations that are purely formed by the initiative of the Forest Department or other external agencies tend to be less democratic and effective. Moreover, the government's blueprint framework for community resource management institutions has often proved to be detrimental. It is instead recommended that a community should have powers and flexibility to design the rules of their management institutions.

Although Joint Forest Management (JFM) resolutions are inclusive in the sense that all community members are formally eligible to become members this is often not enough to ensure effective participation of all households and subgroups. Village elite and powerful individuals in the community tend to dominate decisions and the running of the forest committee. Women's active participation is constrained by gender relations that exist more broadly in rural India. Thus, legislation alone can not ensure women's involvement. Unless community members, and especially men, regard it as important it is unlikely that women's participation will be brought about. Therefore, there is a need to change the more fundamental principles of gender relations and the status of women. Outsiders can play a vital role in this regard by using the opportunity that the introduction of a new program such as JFM offers to alter existing social relations at community level. In certain states of India women's formal and effective participation has been made a condition for signing the JFM agreement. In general, there is a need for external monitoring and inputs to ascertain that no one is excluded.

Surveys carried out suggest that local awareness of rights, rules and regulations governing JFM agreements are low. In many externally induced groups it has been discovered that neither leaders nor the general members are fully aware of their respective responsibilities. This frequently results in inefficiency to perform tasks on part of the functionaries ultimately leading to a loss of their credibility. Outsiders/field staff can make a difference here by facilitating the management committee members. Another important aspect of viable community institutions is to ensure that mechanisms of accountability of the leaders are in place.

External agencies, NGOs as well as forest departments, are not fully aware of the factors that contribute to successful community institutions and the type of support that local organizations require to become effective and empowered resource managers. The most important factors are in this document identified as 'appropriate social composition', 'organizational norms', 'accountability', 'conflict arbitration', and 'autonomy'. These conditions become even more important in areas where there are no existing resource management institutions to build upon. Unless appropriate inputs are given to externally-induced organizations their credibility often turns out to be low. The example of Gram Panchayats is mentioned. Finally, it is also pointed out that there is an urgent need to change the incentive structure of forest department staff and impart new skills to staff to be able to implement JFM in its true spirit.

Porter, D. and Onyach-Olaa, M. 1999. 'Inclusive Planning and Allocation for Rural Services'. *Development in Practice*, Vol. 9, No 1 & 2.

The writers agree that participation is extremely important in order to make rural services more responsive to people's needs. Participatory approaches, however, are often inadequate to understand risks, financial viability, develop management structures and take into account different local interests. They argue that a range of actors need to be involved to create accountable decentralized local institutions. 'Specialised arrangements' are needed to consider the interests of marginalized sections, but participatory techniques that are commonly used do not render enough insight into relations between leaders and the public. Where rural services have improved it has often been based on viable accountability mechanisms between the leaders and the people, rather than development practitioners having used the right participatory tools to identify people's needs.

Portes, A. and Landolt, P. 1996. 'The Downside of Social Capital'. *The American Prospect*, No.29.

This article argues that social capital has become a panacea for a wide range of social and economic problems and that the negative dimensions of social capital are often neglected in policy as well as research. Social capital can lead to relations of domination as groups that are endowed with high levels of social capital have a tendency to exclude outsiders. Social capital can also result in reduced individual freedom as individuals have to conform to certain obligations and rules. The authors suggest that the negative dimensions of social capital need to be considered in research and policy recommendations if the concept is to be useful.

Saxena, R. 2000. 'Joint Forest Management in Gujarat: Policy and Managerial Issues'. Working Paper 149. Institute of Rural Management, Anand, Gujarat, August 2000.

In the wake of the National Forest Policy of 1988 and further guidelines from the Ministry of Environment and Forest, Government of India in June 1990, the Forest Department of Gujarat passed a resolution in March 1991 to rehabilitate the degraded forest land through Joint Forest Management (JFM) by involvement of village communities and voluntary organizations. The study looks at several policy level and managerial issues that need to be sorted out to promote JFM in Gujarat at a faster pace; some of them relate to:

- the process of approval and signing of the agreement by the Forest Department,
- provision of technical guidance,
- sharing arrangements in final harvest,
- right of withdrawal by the Forest Department,
- availability of funds,
- lack of co-operation among stakeholders,
- membership criteria and
- participation by people in decision making.

The issues raised in the study indicate that there is a need for clarity in certain policy provisions regarding JFM and for simplicity of the procedures. The study concludes that, "The village institutions require greater autonomy in handling various managerial issues at the local level". While it is the responsibility of all the partners to make JFM successful, greater responsibility lies with the Forest Department. Much of the success of JFM depends on the attitude of the forest officials. It appears that the Forest Department is deliberately going slow on JFM due to various uncertainties regarding this programme. It feels that it would be very difficult to revert to the previous position if something goes wrong with the programme. This is perhaps why the Forest Department does not want to provide too much of legal backing to the Village Forest Protection Committees (VFPCs) by way of signing agreements with them. The Forest Department would like to keep the programme as informal as possible as it gives the Department more power to handle any changes in the situation. It seems that in the near future not much is going to change through JFM in Gujarat and elsewhere if the Forest Department is not ready to play a pro-active role to involve people in JFM, and to provide security of rights and greater autonomy to village institutions.

Stalker Prokopy, L., Parameswaran, I. and Abhyankar, G.V. 2000. 'The Relationship Between Good Governance and the Effectiveness of Water Supply Projects: A Study of Village Water and Sanitation Committees in Karnataka and Uttar Pradesh'. Draft Report. Washington D.C: The World Bank.

As a means to gain further knowledge about governance issues at community level, the Water and Sanitation Program - South Asia initiated a study of 45 Village Water and Sanitation Committees funded by the Bank in Karnataka and Uttar Pradesh in India. The study seeks to identify factors across the projects that make good village committees. It is found that projects that rely on village committees are better than the ones that are implemented directly by the government. One of the key features that promote effective committees is transparency as people then become more aware of meetings and understand the principles of tariff collection.

Subramanian, A., Jagnathan N.V., Meinzen-Dick, R. (eds.). 1997 'User Organization for Sustainable Water Services'. *World Bank Technical Paper* No. 354. Washington D.C: World Bank.

Water User Associations (WUAs) tend to be more robust if they can harness prevailing social capital and build on existing forms of local organization. It is found that groups which are socially and materially homogenous are more sustainable than others. Equity in WUAs can be improved by assuring participation of all stakeholders, including women and tenants. Generally speaking, the larger the WUA the higher the transaction cost as it becomes complicated for members to monitor the activities. On the other hand, a larger WUA may facilitate an expanded number of activities to be taken up and that way improve performance. Federations of WUAs covering large irrigation projects have proven to be successful in terms of involving users on a larger scale and thus make water management and distribution more efficient. However, external facilitation is important for WUAs to manage an expanded role. WUAs need support in the form of technical and organizational training e t c. Transfer of irrigation management is still in an infant stage. It is important that systematic monitoring of the processes that are linked to this shift is monitored across different types of irrigation systems.

Vasundhara. 1998. 'Traditional Institutions in Balangir District – A Study by Vasundhara on behalf of Rural Development Group, DFID, New Delhi, as a part of the design process for DFID supported Rural Livelihoods Project in Balangir and Nuapara Districts'. August 1998.

The study was initiated to look into the traditional institutions that exist in Balangir district in Orissa, India. The focus was on the institution's evolution, its present status, conflict resolution mechanisms with a thrust on the watershed program and the interactions with the emergent institutions.

The study concluded that the traditional institutions were primarily focused around religious and cultural functions or around ensuring adherence to social rules and norms. They had very limited development functions. Over the years Natural Resource Management based Community Institutions that are emerging at the village level, either spontaneously or initiated by the NGO's or the Government departments, are observed as a positive sign for resource management and livelihood support interventions. In the community level collective endeavours, a high degree of possibility of co-optation of benefits by the dominant sections/castes existed leading to the marginalization of the weaker sections. Untouchability was found to be prevalent, resulting in the exclusion of the lower castes from the development programs. Women's involvement in institutions at the community level and in the decision-making processes is non-existent.

Vettivel, S.K. 1992. *Community Participation: Empowering the Poorest- Roles of NGOs*. New Delhi: Vetri Publishers.

This book deals with the dynamics of the process of direct and informal participation by the less-endowed, deprived groups to influence decision-making by the political structures in order to improve the group's well-being. In particular it looks at the Harijan communities who occupy the lowest socio-economic status. The study assumes that this status and the consequent deprivation the Harijan communities suffer, lead this social group to have certain objective interests and political strategies affecting, thereby, the process of their participation.

The study intends to verify if:

- a less-endowed group has the potential of mobilising a substantial power base and confronting the traditionally (caste Hindus) and formally (bureaucracy) powerful groups;
- it is capable of rendering different levels of the government hierarchy and influencing, possibly even determining the outcomes of decision-making processes in its favour so as to enhance its well-being.
- the socio-economic well-being of the poorest is conditioned by the extent of their participation and increased opportunities provided by the state for such participation and,
- the intervention of the village organisations enhances the level of participation of the poorest and if, since the nature of intervention of each of the village organizations is different, the effect will be different between the areas in which different they operate.

World Bank. 1996. *The World Bank Participation Sourcebook*. Washington D.C: IBRD, The World Bank.

The World Bank participation sourcebook focuses on how participation can be achieved in development projects. In the sourcebook participation is defined as ‘a process through which stakeholders influence and share control over development initiatives which affect them’. Chapter IV looks specifically at the poor and suggests ways in which their participation can be enhanced. The starting point of the chapter is that participation has often been limited to powerful stakeholder groups (including government officials). The approaches that have been deployed have not been very effective in involving the poor. Cultural, economic and political dimensions prevent the poor from participation.

It is argued that to reach the poor more has to be understood about their needs and what institutions and mechanisms can be used to facilitate this. Strengthening of human and social capital of the poor can play a vital role in enhancing their participation. Project designers also need to learn more about local perceptions of poverty and to identify problems as well as priorities of the poor.

World Bank. 1998. Project Appraisal Document: Uttar Pradesh Diversified Agricultural Support Project, April 27 1998, Report No. 17279 – IN. Rural Development Sector Unit, South Asia Region.

This document provides information on the involvement of the local community in the project implementation process and lays great emphasis on the role of user groups in improving agricultural productivity. The principal objective of the project is to increase agricultural productivity through support for Uttar Pradesh’s diversified agricultural production systems, promote private sector development, and improve rural infrastructure. The key issue that the project focuses on is the greater participation of user communities and it places a major emphasis on formation of self-help groups, particularly those formed by women, farmer associations and commodity groups to share production and marketing knowledge as well as mobilize credit.

An important strategy of the project is to facilitate a change in the overall work culture of the public institutions involved in agricultural research and extension to enable them to be more responsive to farmers’ needs. The intention is to build on the highly successful experience of the Uttar Pradesh Sodic Lands Reclamation Project. Throughout the project preparation phase there was a substantial focus on assessing social aspects which have significantly influenced the project design. These included, for example, beneficiary assessment, stakeholder analysis, collection of secondary data to develop socio-economic profiles of the areas, and informal surveys related to how to improve credit.

World Bank. 1999. Rural Water Supply and Sanitation: *South Asia Rural Development Series*. New Delhi: The World Bank, Allied Publishers.

This World Bank study report focuses on the Rural Water Supply and Sanitation (RWSS) sector, it looks at the various policy initiatives undertaken by the Government of India and the role played by the Bank in its working. The report says that the public RWSS services today clearly

do not adequately serve the needs of the user communities as they are poorly designed and constructed, often designed and positioned at sites without consideration to community needs or preferences. The report urges that there has to be a need for these projects to be effective and that the sector investments should be designed in accordance with the needs and demands of the users. There should also be a transfer of ultimate ownership and responsibilities to users and their communities, in order for the assets and services to be sustainable. It is essential therefore to shift from the target oriented, supply driven approach which pays scant attention to a demand driven approach which provides users with the services they want and are willing to pay for.

From an institutional perspective the strategy recommends supporting the transfer of management and financial responsibility to the lowest appropriate level, i.e., the Panchayati Raj institutions and, in particular, user community groups. Transfer of responsibility would require corresponding provision of management and financial autonomy to local administrators and user communities as adequate and appropriate for their roles. Given the responsibility and autonomy, these local groups will be tasked with overseeing planning and implementing sector activities. If required, these local groups would then be able to obtain a higher quality of services and minimize unit costs, through competitive selection of service providers among existing public agencies, non-governmental organisations, and the private sector.

Gram Panchayats and user community groups created under the panchayats, will require basic capacity strengthening for their new roles, they will also need sufficient incentives to increase their level of self-generated income and become more independent. In addition they will require: an understanding of the demand driven approach and how to assess and meet community needs; the autonomy to prioritize and choose investments that best satisfy community needs; an ability to assess and appreciate the financial and social implications of their investment decisions; and an understanding of available technologies and how and from whom to best procure them. The Panchayati Raj institutions with their user community groups, can improve their administration and provision of basic services to rural areas if they are given the opportunity, support, and resources to do so.

World Bank. 1999. *The Irrigation Sector. South Asia Rural Development Series*. New Delhi: The World Bank, Allied Publishers.

The World Bank study report on the irrigation sector identifies physical, institutional and financial/economic constraints in the proper management of irrigation systems in India. The report concentrating on the institutional constraints states that it starts most importantly with the persistence of purely public sector management without accountability to the client, i.e., the farmers. Importantly, there is no direct link between the irrigation service provided, revenues generated, expenditures, and staff incentives. The state Irrigation Departments (IDs) are traditional government departments which in most cases have changed little over time. Administration is centralized and remote with minimal contact with farmers. The report says that it is essential to bring the farmers into the management of irrigation systems and to create client-driven pressures on the service provider to improve performance. There is also a need to change the role, structure and financing of the Irrigation Department; to become fully accountable to the client, and funded by the client, so that the farmer is in the driving seat. Further the irrigation service and agricultural extension needs to be upgraded, so that benefits from institutional and

financial change can be realized. This needs to be done in partnership with Water Users Associations, and in a demand led process involving cost-sharing in investment, with as much work as possible implemented by the WUAs.

The report stresses the need to restructure the state IDs by establishing a commercially operated service agency specifically for operation and management, funded by farmers and answerable to them.

Overview and instructions for fieldwork in the districts selected for the user group study

1. Instruments

This study aims to explore effectiveness and inclusiveness in village-based organizations through a set of questionnaires titled as follows:

1. Project Staff
2. Village Information
3. Individual Group Members & Representatives
4. Focus Groups
5. Financial Transactions

In addition to these questionnaires, poverty ranking will be used to sample individual members. Each team is also encouraged to make notes of any other information relevant to the study that emerges while carrying out the fieldwork. Below follows brief stepwise instructions for data collection in relation to the various instruments.

2. Project staff Questionnaire

Three project staff holding different positions should be interviewed. The first staff interview should take place at the main project office in the district. All three staff members do not have to be interviewed at the beginning of the survey.

3. Sample Villages

During the first interview with a project staff member he/she should be asked for a list of all settlements within which the project is operational. Ask the person to list 50 settlements including groups that they consider to be performing their tasks poorly, well, as well as satisfactorily. Randomly select a sample of 20 villages (out of the 50).

4. Village Information Questionnaire

This questionnaire will be applied at the revenue village level/ or the level at which the village-based organization has been formed if other than revenue village. This information will mainly be obtained through an initial group discussion when the team enters the village. If the village-based organization under study covers a large area such as a village and several hamlets or several villages, there may be a need to limit the unit of the sample. If this situation occurs select two settlements randomly.

5. Poverty Ranking

Before any interviews can be conducted a poverty ranking of the households who are members in the local organization in the village/settlement will be carried out. The purpose of the ranking

is to identify people's perceptions of poverty and to draw a sample of households to be interviewed on the basis of this.

1. List the names of the household heads of all members in the group on cards and write down (on the cards) whether they are a representative of the group. Also write down the caste. Write down the name of the village or hamlet on each card – this information will be needed later.
2. If the unit (hamlets or villages) from where the sample is to be drawn is large, say larger than 200 households, there is a need to undertake poverty ranking settlement wise. For example, if the unit from where the sample is to be drawn covers two large hamlets, there may be a need to do two poverty rankings. If the hamlets are small and located close to each other, it may be possible to undertake a joint poverty ranking. Find out how well people know households in the other settlement (s) before deciding on the unit of the ranking.
3. Select three informants from different social groups to undertake the ranking.
4. Undertake a pair-wise ranking of all the households with each informant – individually and without any other people present. It is important that the households are ranked on the basis of poverty (not wealth or any other criterion) so that data can be compared across projects and states. A simple instruction should be given to the informant on how to rank the households such as: *In your village there are some differences in poverty between the households. Some are more and some are less poor (this will be garibhi in Hindi). I have listed down the names of all the households in the village– can you help me to understand which households are poorer and which are not so poor.* It is important for the person who undertakes the ranking not to give any examples or indicators for poverty at this stage so as to influence the informant's perceptions of poverty. When the ranking has been completed write down the rank on the back of each card. Go through each one of the households and ask why they have been placed in a particular category, i.e. , ask for the informant's indicators of poverty or non-poverty in relation to each household. Use the following list and codes of indicators and write down the codes on each card. If the informant uses other than the below listed indicators – write them down on the cards.

Poverty indicators ¹:

Physical assets

- | | |
|--------------------------------|--------------------------|
| 1. a very large amount of land | |
| 2. a lot of land | 15. little land |
| 3. some land | 16. landless |
| 4. a lot of livestock | 17. little livestock |
| 5. irrigation | 18. no irrigation |
| 6. good quality of land | 19. poor quality of land |

Human assets

- | | |
|------------------------------|--|
| 7. a government job | 20. no regular employment, dependent on wage |
| 8. any permanent/regular job | 21. dependent on migration |

¹ These indicators were arrived at during pre-testing.

- | | |
|---------------------------------|---|
| 9. education | 22. uneducated |
| 10. hardworking | 23. lazy |
| 11. good self-employment | |
| 12. many earning family members | 24. many dependants (big family), few earners |
| 13. few children | 25. young household, few earners |
| | 26. female-headed household |
| | 27. a main earner chronically ill or disabled |
| | 28. household is old and has no children contributing to their livelihood |

Social assets

- | | |
|-----------------------------|--|
| 14. good social connections | 29. not socially well-connected in the village |
|-----------------------------|--|

- 5 Repeat the same procedure with the other two informants.
- 6 Calculate the average “poverty” score for each household; the higher the score the poorer the household.
- 7 Sort all the households into one of the appropriate four groups:

- | | | | |
|------------------|-------|---------|--------------------------------|
| Poverty group 1: | score | 1-25 | (this group is the least poor) |
| Group 2: | score | 26 -50 | |
| Group 3: | score | 51 -75 | |
| Group 4: | score | 76 –100 | (this group is the poorest) |

6. Sample Selection of Village Respondents

20 individuals of different households will be interviewed in each village organization. If the unit of the sample is one settlement only – make a random selection of five households from each poverty group. If the unit of the sample comprises two settlements – then select 10 individuals from each settlement making sure that overall there are five group members from each poverty rank. If the sample selection does not contain households in which there are elected group representatives, randomly select two households (out of all the representatives). Thus, the sample size for some villages may be 20 and in others 22. If some of the selected individuals can not be found – new respondents should be randomly selected. It is suggested that the enumerators are given a poverty group each and all the cards of that group. If they cannot find the initially sampled individuals- they have to randomly sample new ones from the same poverty group.

Enumerators should keep in mind that the interviews are based on individuals. This is not an interview with all household members. Maximum possible privacy should be aimed at.

7. Financial Transactions Questionnaire

Apply the Financial Transactions questionnaire in each project group. Interview the person who is responsible for the financial records.

8. Focus Group Questionnaire and Discussions

Use the Focus Group questionnaire to guide the discussion. The questionnaire should be filled in to provide a minimum data set needed from the focus group. However, this discussion should also be used as an opportunity to expand on issues related to the questionnaire. Field notebooks should be used to document the discussion.

Four focus group interviews are to be carried out in five villages per project. This makes a total of 20 focus groups per project. The villages are randomly selected from the sample of 20 villages. The focus groups will comprise individuals from a specific poverty group. One interview per poverty group should be carried out. About 50% of the focus groups should contain women only. Others may be men exclusively or a mixture of men and women. Make a random selection of individuals to be included in the focus groups.

9. Village Summaries

There will be certain issues and interpretations of responses which can not be captured in the survey instruments mentioned so far. Teams are therefore encouraged to discuss these at the end of each day. These should be summarized into a two-page note on each village. Suggested headings in the village summary are:

- Importance of different livelihood activities in each village.
- Social differences – including those between men and women.
- Power and political activity in the village.
- Views about project staff.

Statistical techniques and application

Variables that are not continuous variables cannot be analysed in the same way using standard OLS regression analysis. Categorical variables need to be analysed using non-linear estimation techniques. The variables under analysis in this study are of two forms; binary responses or ordered responses and for this reason probit and ordered probit techniques are applied.

In this analysis both probit and ordered probit models are constructed to assess socio-economic and village characteristics to explain the left hand variable under investigation. An array of social and economic characteristics of individuals are examined to see which particular characteristics are associated with the outcome under analysis. Below is a detailed description of each of the probit and ordered probit models.

The Probit Model

The probit model uses maximum likelihood techniques to estimate models with binary dependent variables. In this analysis, the probit model is specified as

(1)

where $A_i^{n,k}$ takes a zero or one value based on the answer given by individual n to a specified outcome. For example, whether the individual attended User group meetings, or whether the individual received a certain benefit from joining the user group. If the outcome is positive (ie the individual does attend meetings for example), then $A_i^{n,k} = 1$.² If in contrast the outcome is negative, (eg the individual did not attend or did not receive a specified benefit) then $A_i^{n,k} = 0$. Here $F(x\mathbf{b})$ is the cumulative normal distribution function with a mean of zero and a variance of one. \mathbf{x} is a vector of explanatory variables and \mathbf{b} is a vector of associated estimated coefficients.

Interpreting the coefficient results of the estimated probit model is often difficult since it requires thinking in the *z-metric*. For example, a strict interpretation of a coefficient of an explanatory variable, say x_1 is that each one unit increase in x_1 leads to increasing the probit index by its estimated coefficient.³

The Ordered Probit Model

Ordered probit models are used to estimate relationships between an ordered *ordinal* dependent variable and a set of independent explanatory variables.⁴ In this analysis the categorical outcomes are the ranked evaluation of the user group, or the individual's assessment of the UG's ability to meet specified group objectives. In this case, $r_i^{n,k}$ takes on an ordinal rank between one

³ For further clarification on the interpretation of the probit score, see Greene (1993).

⁴ An ordinal variable is one that is categorical and ordered.

(Missing/nonresponse, which is considered to be a poor response) and six (very good).⁵ In the Ordered Probit model, the probability of observing a particular outcome corresponds to the probability that the estimated linear function plus a random error term falls within a range of cut off points estimated for the outcome. The probability of observing a particular outcome as determined by the Ordered Probit model can be represented in the following way,

$$(3) \quad \Pr(r_i^{n,k} = r | x_j) = \Pr\left(\mathbf{e}_{r-1} < \sum_j \mathbf{b}_j x_j + u_j \leq \mathbf{e}_r\right)$$

$$= F\left(\mathbf{e}_r - \sum_j \mathbf{b}_j x_j\right) - F\left(\mathbf{e}_{r-1} - \sum_j \mathbf{b}_j x_j\right)$$

$$r = 1, 2, \dots, 6$$

where \mathbf{e}_r are threshold parameters or cut points; the \mathbf{b}_j are the coefficients on the explanatory variables, x_j to be estimated; $r_i^{n,k}$ are the rank orders assigned by individual n categorised by k to objective i , relative to each of the other objectives. The error terms u_j are assumed to be normally distributed. In the parameterization used to empirically estimate (3), the constant term appears in the output as the value of the first cut point. This is merely a result of the statistical package used to estimate the Ordered Probit model.⁶

While the coefficients of the ordered probit model indicate whether individuals with a larger quantity or value of the explanatory variable are more or less likely to rank the project objective in the way that they did, they say nothing about the explanatory variable's impact on the magnitude of the problem.

ANNEX 5

Evaluation of meeting User Group specified objectives

Table A5.1a : Ordered Probit on SICs achievement of meeting objective of distribution of inputs, Uttar Pradesh

obj1val	Coef.	z
Regional Units (<i>block 1</i>)		
lblock_2	0.15	1.03
Length of project membership (months)	0.14	3.49 *
Representative (General Member)	0.55	3.58 *
Attended SIC often (not attended often)	0.45	1.91 *
Attended Gram Saba often (not attended often)	-0.24	-1.33
Attended WUG often (not attended often)	0.53	2.25 *
Expected material inputs (did not expect)	-0.11	-0.64
Expected increased production on own land (did not expect)	0.69	3.59 *
Expected increased access to information (did not expect)	0.36	2.18 *
Benefited from material inputs (did not benefit)	0.08	0.57

⁶ Intercooled Stata 6.0 is used to estimate both probit and ordered probit models.

Benefited from increased production on land (did not benefit)	0.70	4.65 *
Benefited increased access to information (did not benefit)	0.26	1.38
Male (female)	-0.01	-0.05
Age (years)	0.00	-0.61
Education group (no education)		
Primary School	-0.07	-0.36
Secondary School	0.28	1.57
At least college	0.15	0.52
Caste (Scheduled caste)		
Other Backward Caste	0.06	0.38
General Caste Group	0.01	0.04
Engaged in local wage employment (not engaged in this activity)	0.76	3.56 *
Employed in farming (not engaged in this activity)	0.03	0.19
Employed in the Government service (not engaged in this activity)	0.59	1.49
Daily wage households main source of livelihood (not main source)	-0.20	-1.33
Permanent emp. income households main source of livelihood (not main source)	-0.51	-1.50
Temporary emp. income households main source of livelihood (not main source)	-0.38	-1.73
Mixture income households main source of livelihood (not main source)	0.01	0.04
Land ownership (<1 hectare, marginal holding)		
1-2 hectares , small holding	0.17	0.97
3-4 hectares, medium holding	-0.07	-0.39
5+ hectares, large holding	0.23	1.15
Cattle holding (0 cattle)		
1-2 heads of cattle	0.15	0.71
3-4 heads of cattle	0.21	0.98
5-6 heads of cattle	0.06	0.25
7-8 heads of cattle	0.06	0.21
9+ heads of cattle	0.20	0.71
Land is irrigated (not irrigated)	0.29	1.16
House is pucca (kutcha)	-0.03	-0.18
Household poverty rank (rank 1 – poor)		
Rank 2	0.11	0.50
Rank 3	0.16	0.67
Rank 4 rich	0.20	0.80
No. of household members	0.00	0.12
No. of households in village of the same caste	0.00	-0.11
μ 1	1.07	
μ 2	1.27	
μ 3	1.58	
μ 4	2.60	
μ 5	3.96	
No of obs	370	
Psuedo R2	0.1741	
Log Likelihood	-475.75	

Notes: 1. The dependent variable is “how would you value the group’s achievement of [the specified objective]”, scaled 1-6.

2. The μ s are threshold parameters.

3. Omitted dummy variables are in (*italics*).

4. * significant at the 10% level.

5. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Uttar Pradesh, Sodic lands Reclamation project (1999)

Table A5.1b: Ordered Probit on SICs achievement of meeting objective of Site Implementation Plan, Uttar Pradesh

obj2val	Coef.	z
Regional Units (<i>block 1</i>)		
Iblock_2	0.06	0.41
Length of project membership (months)	0.11	2.63 *
Representative (General Member)	0.58	3.83 *
Attended SIC often (not attended often)	0.74	3.17 *
Attended Gram Saba often (not attended often)	-0.39	-2.12 *
Attended WUG often (not attended often)	-0.12	-0.50
Expected material inputs (did not expect)	-0.29	-1.61
Expected increased production on own land (did not expect)	0.80	4.00 *
Expected increased access to information (did not expect)	0.71	4.23 *
Benefited from material inputs (did not benefit)	-0.12	-0.79
Benefited from increased production on land (did not benefit)	0.48	3.10 *
Benefited increased access to information (did not benefit)	0.40	2.17 *
Male (female)	0.15	0.60
Age (years)	-0.01	-2.76 *
Education group (no education)		
Primary School	-0.26	-1.34
Secondary School	-0.02	-0.14
At least college	-0.17	-0.62
Caste (Scheduled caste)		
Other Backward Caste	0.16	0.97
General Caste Group	0.25	1.26
Engaged in local wage employment (not engaged in this activity)	0.31	1.45
Employed in farming (not engaged in this activity)	-0.32	-2.04 *
Employed in the Government service (not engaged in this activity)	-0.23	-0.58
Daily wage households main source of livelihood (not main source)	-0.15	-1.00
Permanent emp. income households main source of livelihood (not main source)	-0.01	-0.02
Temporary emp. income households main source of livelihood (not main source)	-0.23	-1.06
Mixture income households main source of livelihood (not main source)	-0.10	-0.31
Land ownership (<1 hectare, marginal holding)		
1-2 hectares , small holding	0.18	0.99
3-4 hectares, medium holding	0.48	2.61 *
5+ hectares, large holding	0.36	1.78

Cattle holding (0 cattle)	
1-2 heads of cattle	-0.04 -0.19
3-4 heads of cattle	-0.20 -0.92
5-6 heads of cattle	-0.11 -0.46
7-8 heads of cattle	-0.08 -0.28
9+ heads of cattle	0.12 0.43
Land is irrigated (not irrigated)	0.21 0.86
House is pucca (kutcha)	-0.08 -0.50
Household poverty rank (rank 1 – poor)	
Rank 2	-0.18 -0.77
Rank 3	0.02 0.10
Rank 4 rich	0.15 0.58
No. of household members	0.00 0.22
No. of households in village of the same caste	0.00 -0.68
$\mu 1$	0.47
$\mu 2$	0.59
$\mu 3$	0.99
$\mu 4$	1.90
$\mu 5$	3.35
No of obs	370
Pseudo R2	0.14722
Log Likelihood	-498.96

Notes: 1. The dependent variable is “how would you value the group’s achievement of [the specified] objective”, scaled 1-6.

2. The μ s are threshold parameters.

3. Omitted dummy variables are in (*italics*).

4. * significant at the 10% level.

5. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Uttar Pradesh, Sodic lands Reclamation project (1999)

Table A5.1c : Ordered Probit on SICs achievement of meeting objective of maintenance of assets created under project, Uttar Pradesh

Obj3val	Coef.	z
Regional Units (<i>block 1</i>)		
Iblock_2	-0.20	-1.38
Length of project membership (months)	0.15	3.73 *
Representative (General Member)	0.32	2.14 *
Attended SIC often (not attended often)	0.42	1.87
Attended Gram Saba often (not attended often)	-0.25	-1.37
Attended WUG often (not attended often)	0.48	2.11 *
Expected material inputs (did not expect)	0.12	0.68
Expected increased production on own land (did not expect)	0.38	1.96 *
Expected increased access to information (did not expect)	0.28	1.71
Benefited from material inputs (did not benefit)	0.17	1.16
Benefited from increased production on land (did not benefit)	0.46	3.06 *
Benefited increased access to information (did not benefit)	0.30	1.63
Male (female)	0.43	1.79
Age (years)	-0.01	-2.46 *
Education group (no education)		
Primary School	0.16	0.86
Secondary School	0.56	3.19 *
At least college	-0.28	-0.99
Caste (Scheduled caste)		
Other Backward Caste	0.10	0.63
General Caste Group	0.03	0.15
Engaged in local wage employment (not engaged in this activity)	0.25	1.20
Employed in farming (not engaged in this activity)	-0.46	-2.91 *
Employed in the Government service (not engaged in this activity)	0.22	0.56
Daily wage households main source of livelihood (not main source)	-0.04	-0.24
Permanent emp. income households main source of livelihood (not main source)	-0.34	-1.03
Temporary emp. income households main source of livelihood (not main source)	-0.05	-0.23
Mixture income households main source of livelihood (not main source)	0.29	0.90
Land ownership (<1 hectare, marginal holding)		
1-2 hectares , small holding	0.11	0.64
3-4 hectares, medium holding	0.11	0.59
5+ hectares, large holding	0.03	0.16
Cattle holding (0 cattle)		
1-2 heads of cattle	0.37	1.72
3-4 heads of cattle	0.28	1.28
5-6 heads of cattle	0.11	0.45
7-8 heads of cattle	0.37	1.33
9+ heads of cattle	0.63	2.22 *
Land is irrigated (not irrigated)	0.24	0.97
House is pucca (kutchra)	0.10	0.67
Household poverty rank (rank 1 – poor)		
Rank 2	-0.08	-0.33

Rank 3	-0.10	-0.43
Rank 4 rich	-0.08	-0.32
No. of household members	-0.02	-1.53
No. of households in village of the same caste	0.00	0.02
$\mu 1$	0.96	
$\mu 2$	1.15	
$\mu 3$	1.78	
$\mu 4$	2.55	
$\mu 5$	4.12	
No of obs		370
Pseudo R2		0.1311
Log Likelihood		-517.96

Notes: 1. The dependent variable is “how would you value the group’s achievement of [the specified] objective”, scaled 1-6.

2. The μ s are threshold parameters.

3. Omitted dummy variables are in (*italics*).

4. * significant at the 10% level.

5. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Uttar Pradesh, Sodic lands Reclamation project (1999)

Table A5.1d: Ability to meet objectives across Social and Economic Characteristics, Uttar Pradesh

	Very Good (%)	Satisfactory (%)	Poor (%)	Missing (%)
<i>Caste</i>	<i>Objective 1</i>			
Scheduled Caste	50.7	31.4	7.1	10.7
Other Backward Caste	43.4	27.7	10.8	18.1
General	59.5	18.9	7.2	14.4
<i>Gender</i>				
Female	33.3	25.0	8.3	33.4
Male	51.6	26.3	8.9	13.2
<i>Household Poverty rank</i>				
1-Rich	59.7	21.0	9.7	9.7
2	54.3	27.2	5.4	13.0
3	47.0	29.9	8.6	14.5
4 - Poor	45.9	26.0	10.3	17.8
<i>Caste</i>	<i>Objective 2</i>			
Scheduled Caste	25.7	32.9	12.1	29.3
Other Backward Caste	23.5	24.7	18.1	23.7
General	41.4	21.6	12.6	24.3
<i>Gender</i>				
Female	22.2	13.9	16.7	47.2
Male	29.6	27.4	14.3	28.8
<i>Household Poverty rank</i>				
1-Rich	40.3	24.2	19.4	16.1
2	34.8	27.2	7.6	30.4
3	23.9	33.3	12.0	30.8

4- Poor	24.7	21.9	19.2	34.2
Caste	Objective 3			
Scheduled Caste	19.3	27.9	25.7	27.1
Other Backward Caste	24.1	17.5	22.9	35.5
General	32.4	24.3	19.8	23.4
Gender				
Female	5.6	16.6	27.8	50.0
Male	26.9	22.8	22.3	28.0
Household Poverty rank				
1-Rich	33.9	33.7	21.4	17.8
2	24.2	26.1	22.2	20.5
3	24.2	12.0	27.4	26.0
4- Poor	17.7	28.3	29.1	35.6

Source: Individual Questionnaire, IUGS (200)

Table A5.2a Ordered Probit on FC achievement of meeting objective of improved forestry, Madhya Pradesh

obj1val	Coef.	z
Regional Units (<i>block 1</i>)		
Iblock_2	0.13	0.77
Iblock_3	-0.06	-0.32
Iblock_4	0.18	1.15
Attended VFC often (<i>not attended often</i>)	0.48	4.80 *
Attended Gram Saba often (<i>not attended often</i>)	0.06	0.62
Length of Membership of project (months)	0.05	1.41
Representative (<i>General Member</i>)	0.13	1.05
Expected increased labour opportunities (<i>did not expect</i>)	0.19	1.85
Expected increased access to loans (<i>did not expect</i>)	0.21	1.57
Expected increased access to material inputs (<i>did not expect</i>)	0.19	1.47
Benefited from increased labour opportunities (<i>did not benefit</i>)	0.29	2.69 *
Benefited from increased access to loans (<i>did not benefit</i>)	0.24	1.93 *
Benefited from increased access to material inputs (<i>did not benefit</i>)	0.66	5.11 *
Male (<i>female</i>)	-0.15	-1.06
Age (years)	0.00	0.48
Education group (<i>no education</i>)		
Primary School	0.01	0.13
Secondary School	-0.12	-0.85
At least college	0.32	1.72
Caste (<i>Scheduled Tribe</i>)		
Scheduled Caste	-0.43	-2.15 *
Other Backward Caste	-0.26	-2.09 *
General Caste group	0.06	0.34
Engaged in local wage employment (<i>not engaged in this activity</i>)	0.05	0.42
Employed in farming (<i>not engaged in this activity</i>)	0.05	0.34

Employed in the Government service (<i>not engaged in this activity</i>)	-0.01 -0.04
Daily wage households main source of livelihood (<i>not main source</i>)	0.05 0.43
Permanent emp. income households main source of livelihood (<i>not main source</i>)	0.10 0.36
Temporary emp. income households main source of livelihood (<i>not main source</i>)	0.97 2.18 *
Mixture income households main source of livelihood (<i>not main source</i>)	0.06 0.11
Land ownership (<1 hectare, marginal holding)	
1-2 hectares , small holding	0.07 0.54
3-4 hectares, medium holding	0.18 1.38
5+ hectares, large holding	0.00 -0.04
Cattle holding (0 cattle)	
1-2 heads of cattle	-0.14 -0.96
3-4 heads of cattle	0.14 0.95
5-6 heads of cattle	0.00 -0.02
7-8 heads of cattle	0.10 0.51
9+ heads of cattle	0.08 0.43
Land is irrigated (<i>not irrigated</i>)	0.01 0.09
House is pucca (<i>kutchha</i>)	0.17 0.49
Household poverty rank (<i>rank 1 – poor</i>)	
Rank 2	-0.05 -0.35
Rank 3	0.29 1.94 *
Rank 4 rich	0.06 0.40
No. of household members	0.02 1.42
No. of households in village of the same caste	0.00 -0.32
μ_1	-0.75
μ_2	-0.50
μ_3	0.02
μ_4	1.22
μ_5	2.62
No of obs	698
Pseudo R2	0.0860
Log Likelihood	-860.83

Notes: 1. The dependent variable is “how would you value the group’s achievement of [the specified] objective”, scaled 1-6.

2. The μ s are threshold parameters.

3. Omitted dummy variables are in (*italics*).

4. * significant at the 10% level.

5. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Madhya Pradesh, Forestry project (1999)

Table A5.2b: Ordered Probit on VFC achievement of meeting objective of village development, Madhya Pradesh

obj2val	Coef.	z
Regional Units (<i>block 1</i>)		
Iblock_2	0.61	3.53 *
Iblock_3	-0.65	-3.54 *
Iblock_4	0.77	4.98 *
Attended VFC often (<i>not attended often</i>)	0.10	1.03
Attended Gram Saba often (<i>not attended often</i>)	-0.04	-0.41
Length of Membership of project (months)	-0.09	-2.78 *
Representative (<i>General Member</i>)	0.09	0.69
Expected increased labour opportunities (<i>did not expect</i>)	-0.04	-0.35
Expected increased access to loans (<i>did not expect</i>)	0.40	2.99 *
Expected increased access to material inputs (<i>did not expect</i>)	-0.01	-0.07
Benefited from increased labour opportunities (<i>did not benefit</i>)	0.53	4.83 *
Benefited from increased access to loans (<i>did not benefit</i>)	0.33	2.67 *
Benefited from increased access to material inputs (<i>did not benefit</i>)	0.72	5.56 *
Male (<i>female</i>)	0.14	0.97
Age (years)	0.00	-1.02
Education group (<i>no education</i>)		
Primary School	0.09	0.91
Secondary School	0.09	0.64
At least college	0.23	1.27
Caste (<i>Scheduled Tribe</i>)		
Scheduled Caste	-0.38	-1.87
Other Backward Caste	-0.34	-2.70 *
General Caste group	-0.01	-0.05
Engaged in local wage employment (<i>not engaged in this activity</i>)	0.22	1.91 *
Employed in farming (<i>not engaged in this activity</i>)	-0.01	-0.08
Employed in the Government service (<i>not engaged in this activity</i>)	0.20	0.70
Daily wage households main source of livelihood (<i>not main source</i>)	0.20	1.87
Permanent emp. income households main source of livelihood (<i>not main source</i>)	0.26	0.90
Temporary emp. income households main source of livelihood (<i>not main source</i>)	0.76	1.75
Mixture income households main source of livelihood (<i>not main source</i>)	0.48	0.92
Land ownership (<1 hectare, marginal holding)		
1-2 hectares , small holding	0.06	0.50
3-4 hectares, medium holding	0.07	0.55
5+ hectares, large holding	-0.13	-0.91
Cattle holding (<i>0 cattle</i>)		
1-2 heads of cattle	0.38	2.61 *
3-4 heads of cattle	0.14	0.94
5-6 heads of cattle	0.38	2.28 *
7-8 heads of cattle	0.38	1.95 *
9+ heads of cattle	0.56	3.00 *
Land is irrigated (<i>not irrigated</i>)	0.11	0.83
House is pucca (<i>kutchra</i>)	0.13	0.37

Household poverty rank (<i>rank 1 – poor</i>)	
Rank 2	0.07 0.54
Rank 3	-0.04 -0.30
Rank 4 rich	-0.07 -0.42
No. of household members	0.02 1.33
No. of households in village of the same caste	0.00 -0.12
$\mu 1$	0.16
$\mu 2$	0.29
$\mu 3$	0.51
$\mu 4$	1.67
$\mu 5$	3.06
No of obs.	698
Pseudo R2	0.1042
Log Likelihood	-915.80

Notes: 1. The dependent variable is “how would you value the group’s achievement of [the specified] objective”, scaled 1-6.

2. The μ s are threshold parameters.

3. Omitted dummy variables are in (*italics*).

4. * significant at the 10% level.

5. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Madhya Pradesh, Forestry project (1999)

Table A5.2c: Ordered Probit on VFC achievement of meeting objective of equitable distribution of forest produce, Madhya Pradesh

obj3val	Coef. z
Regional Units (<i>block 1</i>)	
Iblock_2	0.40 2.31 *
Iblock_3	-0.03 -0.18
Iblock_4	1.10 7.09 *
Attended VFC often (<i>not attended often</i>)	0.21 2.19 *
Attended Gram Saba often (<i>not attended often</i>)	0.13 1.37
Length of Membership of project (months)	0.07 2.26 *
Representative (<i>General member</i>)	0.29 2.37 *
Expected increased labour opportunities (<i>did not expect</i>)	0.27 2.64 *
Expected increased access to loans (<i>did not expect</i>)	-0.03 -0.22
Expected increased access to material inputs (<i>did not expect</i>)	0.17 1.35
Benefited from increased labour opportunities (<i>did not benefit</i>)	0.68 6.23 *
Benefited from increased access to loans (<i>did not benefit</i>)	0.57 4.64 *
Benefited from increased access to material inputs (<i>did not benefit</i>)	0.02 0.15
Male (<i>female</i>)	0.56 3.95 *
Age (years)	-0.01 -2.19 *
Education group (<i>no education</i>)	
Primary School	0.01 0.11
Secondary School	-0.28 -1.96 *
At least college	-0.41 -2.17 *
Caste (<i>Scheduled Tribe</i>)	
Scheduled Caste	-0.46 -2.34 *

Other Backward Caste	-0.06	-0.51
General Caste group	-0.05	-0.30
Engaged in local wage employment (<i>not engaged in this activity</i>)	-0.26	-2.22 *
Employed in farming (<i>not engaged in this activity</i>)	-0.30	-1.97 *
Employed in the Government service (<i>not engaged in this activity</i>)	0.18	0.63
Daily wage households main source of livelihood (<i>not main source</i>)	-0.03	-0.26
Permanent emp. income households main source of livelihood (<i>not main source</i>)	0.16	0.57
Temporary emp. income households main source of livelihood (<i>not main source</i>)	0.13	0.30
Mixture income households main source of livelihood (<i>not main source</i>)	0.12	0.23
Land ownership (<1 hectare, marginal holding)		
1-2 hectares , small holding	-0.22	-1.72
3-4 hectares, medium holding	0.10	0.78
5+ hectares, large holding	-0.29	-2.07 *
Cattle holding (0 cattle)		
1-2 heads of cattle	0.22	1.54
3-4 heads of cattle	0.08	0.55
5-6 heads of cattle	0.34	2.12 *
7-8 heads of cattle	0.38	1.98 *
9+ heads of cattle	0.47	2.56 *
Land is irrigated (<i>not irrigated</i>)	0.18	1.43
House is pucca (<i>kutchha</i>)	0.70	2.02 *
Household poverty rank (<i>rank 1 – poor</i>)		
Rank 2	0.05	0.35
Rank 3	0.01	0.06
Rank 4 rich	-0.03	-0.17
No. of household members	-0.02	-1.41
No. of households in village of the same caste	0.00	-1.25
$\mu 1$	-0.27	
$\mu 2$	0.14	
$\mu 3$	1.03	
$\mu 4$	1.97	
$\mu 5$	3.13	
No of obs		698
Pseudo R2		0.1746
Log Likelihood		-988.68

Notes: 1. The dependent variable is “how would you value the group’s achievement of [the specified] objective”, scaled 1-6.

2. The μ s are threshold parameters.

3. Omitted dummy variables are in (*italics*).

4. * significant at the 10% level.

5. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Madhya Pradesh, Forestry project (1999)

Table A5.2d: Ability to meet objectives across Social and Economic Characteristics, Madhya Pradesh

	Very Good	Satisfactory	Poor	Missing
--	-----------	--------------	------	---------

Caste	Objective 1			
Scheduled Tribe	59.0	32.2	5.1	3.7
Scheduled Caste	41.5	31.7	9.8	17.1
Other Backward Caste	54.6	25.4	13.1	6.9
General	42.9	17.9	25.0	14.3
Gender				
Female	54.0	24.2	0	21.8
Male	57.7	31.2	8.4	2.6
Household Poverty rank				
1-Rich	54.1	27.0	12.0	6.9
2	56.1	29.0	9.3	5.6
3	59.5	29.0	8.0	3.5
4 - Poor	52.6	32.8	6.3	8.3
Caste	Objective 2			
Scheduled Tribe	44.3	36.2	5.0	14.5
Scheduled Caste	31.7	24.4	12.2	31.7
Other Backward Caste	30.0	36.9	10.0	23.1
General	46.4	23.8	13.1	16.7
Gender				
Female	37.1	28.2	2.4	32.3
Male	41.6	36.0	8.0	14.4
Household Poverty rank				
1-Rich	40.9	30.2	7.5	21.4
2	47.2	34.3	5.6	12.9
3	41.0	32.0	10.0	17.0
4- Poor	35.4	40.6	5.2	18.8
Caste	Objective 3			
Scheduled Tribe	28.7	22.4	30.0	18.9
Scheduled Caste	26.8	12.2	31.7	29.3
Other Backward Caste	26.9	23.1	31.5	18.5
General	39.3	19.1	22.6	19.0
Gender				
Female	9.7	15.3	21.8	52.2
Male	32.2	22.7	31.7	13.5
Household Poverty rank				
1-Rich	33.3	18.2	32.1	16.4
2	24.6	26.6	27.4	21.4
3	33.0	17.5	31.5	18.0
4- Poor	28.6	22.5	28.1	20.8

Source: Individual Questionnaire, IUGS (200)

Table A5.3a: Ordered Probit analysis of WUA in meeting objective of effective maintenance of the irrigation system, Andhra Pradesh

obj1val	Coef.	z
Regional Units (<i>block 1</i>)		
Ibloc_2	0.31	1.37
Ibloc_3	0.03	0.13
Ibloc_4	-0.23	-0.85

Ibloc_5	0.29 1.26
Ibloc_6	-0.45 -2.33 *
Ibloc_7	-1.31 -6.24 *
Ibloc_8	-0.14 -0.58
Ibloc_9	-1.19 -5.30 *
Ibloc_10	-0.05 -0.18
Ibloc_11	-0.31 -1.52
Ibloc_12	0.10 0.43
Ibloc_13	0.31 1.27
Ibloc_14	-0.01 -0.05
Ibloc_15	-0.06 -0.24
Attended WUG often (<i>did not attend often</i>)	0.02 0.20
Attended Gram Saba often (<i>did not attend often</i>)	-0.02 -0.20
Length of Membership of project (months)	0.04 1.79
Representative (<i>General member</i>)	0.85 5.23 *
Expected increased material inputs (<i>did not expect</i>)	0.26 2.24 *
Expected increased production on own land (<i>did not expect</i>)	0.46 5.14 *
Expected increased access to information (<i>did not expect</i>)	0.35 2.93 *
Expected increased irrigation water(<i>did not expect</i>)	0.40 3.23 *
Benefited increased material inputs (<i>did not benefit</i>)	-0.15 -1.42
Benefited increased production on own land (<i>did not benefit</i>)	0.20 1.75
Benefited increased access to information (<i>did not benefit</i>)	0.09 0.70
Benefited increased irrigation water (<i>did not benefit</i>)	0.35 3.99 *
Male (<i>female</i>)	-0.01 -0.06
Age (years)	0.00 0.39
Education group (<i>no education</i>)	
Primary School	-0.11 -0.20
Secondary School	-0.12 -0.92
At least college	0.12 1.31
<i>Caste (Other Backward Caste)</i>	
Scheduled Tribe	0.01 0.11
Scheduled Caste	0.02 0.20
General Caste group	-0.23 -1.45
Engaged in local wage employment (<i>not engaged in this activity</i>)	0.13 1.14
Employed in farming (<i>not engaged in this activity</i>)	-0.05 -0.35
Employed in the Government service (<i>not engaged in this activity</i>)	0.46 1.64
Daily wage households main source of livelihood (<i>not main source</i>)	-0.07 -0.65
Permanent emp. Income households main source of livelihood (<i>not main source</i>)	-0.01 -0.06
Temporary emp. income households main source of livelihood (<i>not main source</i>)	-0.41 -1.45
Mixture income households main source of livelihood (<i>not main source</i>)	0.03 0.18
Land ownership (<i><1 hectare, marginal holding</i>)	
1-2 hectares , small holding	0.14 1.02
3-4 hectares, medium holding	0.36 2.58 *
5+ hectares, large holding	0.36 2.38 *
Cattle holding (<i>0 cattle</i>)	
1-2 heads of cattle	0.12 1.18
3-4 heads of cattle	0.04 0.34

5-6 heads of cattle	-0.14 -1.01
7-8 heads of cattle	-0.42 -1.84
9+ heads of cattle	0.33 2.04 *
Land is irrigated (<i>not irrigated</i>)	-0.03 -0.34
House is pucca (<i>kutchra</i>)	-0.06 -0.67
Household poverty rank (<i>rank 1 – poor</i>)	
Rank 2	-0.03 -0.28
Rank 3	-0.40 -3.61 *
Rank 4 rich	-0.35 -3.14 *
No. of household members	0.01 1.32
No. of households in village of the same caste	0.00 -0.37
$\mu 1$	-0.88
$\mu 2$	-0.87
$\mu 3$	-0.66
$\mu 4$	0.87
$\mu 5$	2.54
No of obs	970
Pseudo R2	0.1977
Log Likelihood	-1021.24

Notes: 1. The dependent variable is “how would you value the group’s achievement of [the specified] objective”, scaled 1-6.

2. The μ s are threshold parameters.

3. Omitted dummy variables are in (*italics*).

4. * significant at the 10% level.

5. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Andhra Pradesh, Irrigation project (part of Economic Restructuring Project) (1999)

Table A5.3b: Ordered Probit analysis of WUA in meeting objective of better water supply, Andhra Pradesh

obj2val	Coef.	z
Regional Units (<i>block 1</i>)		
Ibloc_2	0.60	2.76 *
Ibloc_3	-0.24	-0.95
Ibloc_4	-0.08	-0.31
Ibloc_5	0.34	1.52
Ibloc_6	-0.17	-0.93
Ibloc_7	-1.74	-7.82 *
Ibloc_8	-0.01	-0.06
Ibloc_9	-1.28	-5.67 *
Ibloc_10	-0.07	-0.28
Ibloc_11	-0.30	-1.57
Ibloc_12	0.24	1.03
Ibloc_13	0.83	3.53 *
Ibloc_14	0.39	1.62
Ibloc_15	-0.09	-0.41
Attended WUG often (<i>did not attend often</i>)	-0.11	-1.22

Attended Gram Saba often (<i>did not attend often</i>)	0.09	0.77
Length of Membership of project (months)	0.05	2.43*
Representative (<i>General member</i>)	0.78	5.00*
Expected increased material inputs (<i>did not expect</i>)	0.01	0.11
Expected increased production on own land (<i>did not expect</i>)	0.19	1.98*
Expected increased access to information (<i>did not expect</i>)	0.06	0.50
Expected increased irrigation water (<i>did not expect</i>)	-0.01	-0.09
Benefited increased material inputs (<i>did not benefit</i>)	-0.29	-2.68*
Benefited increased production on own land (<i>did not benefit</i>)	-0.04	-0.30
Benefited increased access to information (<i>did not benefit</i>)	0.06	0.47
Benefited increased irrigation water (<i>did not benefit</i>)	0.37	4.16*
Male (<i>female</i>)	-0.17	-0.97
Age (years)	-0.01	-1.83
Education group (<i>no education</i>)		
Primary School	-0.11	-0.21
Secondary School	-0.16	-1.21
At least college	-0.02	-0.18
Caste (<i>Other Backward Caste</i>)		
Scheduled Tribe	0.14	1.44
Scheduled Caste	0.05	0.41
General Caste group	0.02	0.15
Engaged in local wage employment (<i>not engaged in this activity</i>)	0.23	1.94*
Employed in farming (<i>not engaged in this activity</i>)	-0.21	-1.51
Employed in the Government service (<i>not engaged in this activity</i>)	0.14	0.48
Daily wage households main source of livelihood (<i>not main source</i>)	-0.16	-1.31
Permanent emp. Income households main source of livelihood (<i>not main source</i>)	0.19	0.99
Temporary emp. income households main source of livelihood (<i>not main source</i>)	-0.42	-1.50
Mixture income households main source of livelihood (<i>not main source</i>)	-0.28	-1.95*
Land ownership (<i><1 hectare, marginal holding</i>)		
1-2 hectares , small holding	0.18	1.17
3-4 hectares, medium holding	0.18	1.19
5+ hectares, large holding	0.26	1.64
Cattle holding (<i>0 cattle</i>)		
1-2 heads of cattle	0.09	0.85
3-4 heads of cattle	-0.01	-0.08
5-6 heads of cattle	0.02	0.12
7-8 heads of cattle	-0.29	-1.25
9+ heads of cattle	0.23	1.46
Land is irrigated (<i>not irrigated</i>)	-0.06	-0.59
House is pucca (<i>kutchra</i>)	-0.19	-2.18*
Household poverty rank (<i>rank 1 – poor</i>)		
Rank 2	-0.24	-2.11*
Rank 3	-0.50	-4.47*
Rank 4 rich	-0.59	-5.13*
No. of household members	0.01	1.11
No. of households in village of the same caste	0.00	0.56
$\mu 1$	-1.40	

μ_2	-0.75
μ_3	0.27
μ_4	1.68
No of obs	971
Pseudo R2	0.2425
Log Likelihood	-1074.81

Notes: 1. The dependent variable is “how would you value the group’s achievement of [the specified] objective”, re- scaled 1-5 due to too few responses in least favourable category.

2. The μ s are threshold parameters.

3. Omitted dummy variables are in (*italics*).

4. * significant at the 10% level.

5. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Andhra Pradesh, Irrigation project (part of Economic Restructuring Project) (1999)

Table A5.3c Ordered Probit analysis of WUA in meeting objective of increased agricultural production, Andhra Pradesh

obj3val	Coef.	Z
Regional Units (<i>block 1</i>)		
Ibloc_2	0.68	3.13*
Ibloc_3	-0.38	-1.54
Ibloc_4	0.23	0.92
Ibloc_5	0.39	1.77
Ibloc_6	-0.08	-0.41
Ibloc_7	-1.31	-6.09*
Ibloc_8	0.11	0.47
Ibloc_9	-1.08	-4.76*
Ibloc_10	0.03	0.11
Ibloc_11	-0.32	-1.65
Ibloc_12	0.27	1.19
Ibloc_13	0.84	3.62*
Ibloc_14	0.14	0.57
Ibloc_15	-0.15	-0.68
Attended WUG often (<i>did not attend often</i>)	-0.25	-2.79*
Attended Gram Saba often (<i>did not attend often</i>)	0.05	0.41
Length of Membership of project (months)	0.03	1.46
Representative (<i>General Member</i>)	0.52	3.35*
Expected increased material inputs (<i>did not expect</i>)	0.06	0.50
Expected increased production on own land (<i>did not expect</i>)	0.07	0.81
Expected increased access to information (<i>did not expect</i>)	-0.01	-0.05
Expected increased irrigation water (<i>did not expect</i>)	-0.10	-0.73
Benefited increased material inputs (<i>did not benefit</i>)	-0.23	-2.19*
Benefited increased production on own land (<i>did not benefit</i>)	-0.04	-0.31
Benefited increased access to information (<i>did not benefit</i>)	0.29	2.34*
Benefited increased irrigation water (<i>did not benefit</i>)	0.38	4.22*
Male (<i>female</i>)	-0.11	-0.65
Age (years)	0.00	-0.49
Education group (<i>no education</i>)		

Primary School	0.23	0.46
Secondary School	0.02	0.15
At least college	-0.02	-0.21
Caste (<i>Other Backward Caste</i>)		
Scheduled Tribe	0.13	1.30
Scheduled Caste	0.10	0.89
General Caste group	0.19	1.23
Engaged in local wage employment (<i>not engaged in this activity</i>)	0.26	2.15*
Employed in farming (<i>not engaged in this activity</i>)	-0.11	-0.77
Employed in the Government service (<i>not engaged in this activity</i>)	-0.06	-0.23
Daily wage households main source of livelihood (<i>not main source</i>)	-0.12	-1.03
Permanent emp. income households main source of livelihood (<i>not main source</i>)	0.28	1.46
Temporary emp. income households main source of livelihood (<i>not main source</i>)	-0.34	-1.24
Mixture income households main source of livelihood (<i>not main source</i>)	-0.10	-0.74
Land ownership (<1 hectare, marginal holding)		
1-2 hectares, small holding	0.09	0.58
3-4 hectares, medium holding	0.09	0.63
5+ hectares, large holding	0.18	1.13
Cattle holding (<i>0 cattle</i>)		
1-2 heads of cattle	0.06	0.53
3-4 heads of cattle	-0.01	-0.06
5-6 heads of cattle	0.18	1.25
7-8 heads of cattle	-0.42	-1.77
9+ heads of cattle	0.39	2.45*
Land is irrigated (<i>not irrigated</i>)	-0.15	-1.50
House is pucca (<i>kutchra</i>)	-0.14	-1.66
Household poverty rank (<i>rank 1 – poor</i>)		
Rank 2	-0.17	-1.56
Rank 3	-0.31	-2.83*
Rank 4 rich	-0.51	-4.41*
No. of household members	0.01	0.75
No. of households in village of the same caste	0.00	-0.21
$\mu 1$	-0.87	
$\mu 2$	-0.81	
$\mu 3$	-0.30	
$\mu 4$	0.80	
$\mu 5$	2.03	
No of obs		971
Pseudo R2		0.1831
Log Likelihood		-1157.61

Notes: 1. The dependent variable is “how would you value the group’s achievement of [the specified] objective”, scaled 1-6.

2. The μ s are threshold parameters.

3. Omitted dummy variables are in (*italics*).

4. * significant at the 10% level.

5. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Andhra Pradesh, Irrigation project (part of Economic Restructuring Project) (1999)

Table A5.3d: Ability to meet objectives across Social and Economic Characteristics, Andhra Pradesh

	Very Good	Satisfactory	Poor	Missing
<i>Caste</i>				
<i>Objective 1</i>				
Scheduled Tribe	40.0	30.0	20.0	10.0
Scheduled Caste	28.9	45.6	2.0	23.5
Other Backward Caste	35.3	42.9	4.5	17.4
General	49.6	32.2	10.3	7.8
<i>Gender</i>				
Female	31.9	37.7	5.8	24.6
Male	42.2	39.5	4.7	13.7
<i>Household Poverty rank</i>				
1-Rich	54.8	33.6	4.6	7.0
2	49.2	37.0	6.7	7.1
3	31.2	43.0	8.5	17.3
4 - Poor	32.0	40.7	7.7	19.6
<i>Caste</i>				
<i>Objective 2</i>				
Scheduled Tribe	20.0	20.0	30.0	30.0
Scheduled Caste	19.5	18.8	15.4	46.3
Other Backward Caste	19.3	26.1	15.6	39.0
General	31.4	29.5	15.1	24.0
<i>Gender</i>				
Female	23.2	16.0	10.1	50.7
Male	24.9	26.6	16.5	32.0
<i>Household Poverty rank</i>				
1-Rich	37.4	29.0	12.7	20.9
2	30.2	29.0	17.7	23.1
3	17.3	27.0	12.5	43.2
4- Poor	18.6	23.4	18.6	39.4
<i>Caste</i>				
<i>Objective 3</i>				
Scheduled Tribe	20.0	20.0	10.0	50.0
Scheduled Caste	14.8	24.8	14.8	45.6
Other Backward Caste	14.2	26.9	16.0	42.9
General	22.0	30.1	16.1	31.8
<i>Gender</i>				
Female	16.0	21.7	10.1	52.2
Male	18.2	28.5	16.8	36.5
<i>Household Poverty rank</i>				
1-Rich	29.7	25.5	17.8	27.0
2	21.9	31.5	16.8	29.8
3	12.2	29.8	11.9	46.1
4- Poor	11.5	26.3	17.3	44.9

Source: Individual Questionnaire, IUGS (200)

ANNEX 6

Table A6.1: Educational attainment of respondents, Household Poverty and Caste (%), Uttar Pradesh

Caste	Scheduled Tribe	Scheduled Caste	Other Backward Caste	General
	(%)	(%)	(%)	(%)
Education				
No Formal education	1.5	42.4	39.3	16.8
Primary school only	1.9	19.2	46.2	32.7
Secondary school	1.3	21.4	36.0	41.3
Higher	0	10.7	42.9	46.4
Household Poverty Rank				
1 – Rich	0	0	24.2	75.8
2	3.3	10.9	55.4	30.4
3	1.7	38.5	44.4	15.4
4 - Poor	0.7	58.2	32.9	8.2
Household poverty rank	1-Rich	2	3	4 - Poor
Education				
No Formal education	8.0	19.8	31.3	40.8
Primary school only	11.5	30.8	23.1	34.6
Secondary school	30.6	22.7	24.0	22.7
Higher	42.9	25.0	17.8	14.3

Source: Individual level questionnaire, IUGS (2000)

Table A6.2: Educational Attainment of Respondents, Household Poverty and Caste (%), Madhya Pradesh

Caste	Scheduled Tribe	Scheduled Caste	Other Backward Caste	General
Education				
No Formal education	68.2	5.2	16.0	10.6
Primary school only	66.4	5.8	16.6	11.2
Secondary school	72.9	2.4	15.3	9.4
Higher	66.7	6.2	18.8	8.3
Household Poverty Rank				
1 – Rich	66.7	6.9	16.3	10.1
2	72.6	4.0	14.1	9.3
3	67.0	4.0	18.0	11.0
4 - Poor	64.6	6.2	17.2	12.0
Household Poverty Rank	1- Rich	2	3	4-Poor
Education				
No Formal education	14.9	30.7	26.9	27.5
Primary school only	20.2	30.0	26.5	23.3
Secondary school	32.9	34.1	17.6	15.3
Higher	41.7	33.3	14.6	10.4

Source: Individual level questionnaire, IUGS (2000)

Table A6.3: Educational Attainment of Respondent Household Poverty and Caste (%), Andhra Pradesh

Caste	Scheduled Tribe	Scheduled Caste	Other Backward Caste	General
Education				
No Formal education	1.2	16.0	47.3	35.5
Primary school only	0.4	10.6	46.0	43.0
Secondary school	0.5	7.0	30.7	61.8
Higher	0	2.5	25.9	71.6
Household Poverty Rank				
1 – Rich	0.4	5.8	39.0	54.8
2	0.4	10.5	40.8	48.3
3	1.1	13.1	47.7	38.1
4 – Poor	1.0	18.6	44.5	35.9
Household Poverty Rank	1-Rich	2	3	4-Poor
Education				
No Formal education	20.6	17.6	32.5	29.3
Primary school only	19.7	21.3	31.5	27.6
Secondary school	31.5	23.8	25.4	19.3
Higher	23.7	33.8	20.0	22.5

Source: Individual level questionnaire, IUGS (2000)

Table A6.4: Characteristics of Representatives, by State

	Uttar Pradesh	Madhya Pradesh	Andhra Pradesh
	(%)	(%)	(%)
Representatives	24.7	15.9	8.6
Male/Representative	89.6	92.5	91.7
Household Poverty Rank/Rep			
1 – Rich	20.4	22.8	30.0
2	19.4	38.6	13.0
3	28.2	21.3	35.0
4 – Poor	32.0	17.3	22.0
Education/Representative			
No Formal education	64.1	44.9	52.0
Primary school only	8.7	30.7	22.0
Secondary school	17.8	17.3	15.0
Higher	9.7	7.1	11.0

Source: Individual Questionnaire, IUGS (2000)

Table A7.1: Village & Organizational Characteristics, by States			
	UP	MP	AP
Distance from District HQ			
0-20	58.3	0.7	8.4
21- 40	24.1	1.4	9.3
41-60	17.6	39.6	28.0
61-80	.	15.1	28.0
81-100	.	14.4	16.0
101+	.	28.8	10.2
Meet with Project Staff			
Regularly	22.2	43.9	19.9
Infrequent	55.6	54.7	55.8
Rarely	4.6	0	18.4
Never	17.6	1.4	5.9
Meet for General Support	1.8	69.8	0.3
Meet for technical Assistance	17.6	0	33.3
Meet for management of assets	23.2	13.0	62.3
Meet for decision making	19.4	14.4	14.3
Meet for Produce sharing	6.5	13.0	1.2
Meet for financial purposes	0	0.7	28.0
Meet for planning	0	0.7	50.2
Meet for monitoring	0	0.7	37.1
Meet for training	0	0	31.2
All weather road in village	76.8	83.4	84.3
Primary school in village	100	100	71.6
Secondary school in village	0.9	54.7	55.2
High School in village	0	52.5	37.9

Note: Each row is a separate category, columns do not sum to 100.

Source: Village and focus group questionnaire, IUGS (2000)

Table A7.2: Institutional interaction and presence in the village, by States			
	Uttar Pradesh (%)	Madhya Pradesh (%)	Andhra Pradesh (%)
Organizations where contact made			
Gram Panchayat	2.8	15.1	11.2
Line Dept.	16.7	0.7	54.5
Government Dept.	0.9	0	6.2
other organizations	0.9	0	0.3
Bank	0	0	24.9
No contact	40.7	41.0	14.0
Do not know of contact	0.9	43.2	29.3
Organizations present in the village			
NGO	0.9	0	7.7
Informal education centres	23.2	1.4	21.8
Adult education centres	1.8	25.9	31.4
Angan wadi centres	21.3	71.9	78.2
Revenue office	1.8	37.4	14.9
Other organizations	1.8	0	13.4

Note: Each row is a separate category, columns do not sum to 100.

Source: Village and focus group questionnaire, IUGS (2000)

Who attended User Group Meetings?

Table A8.1 a : Attendance UP (poverty rank)

Sicaoft	Coef.	Z
Regional Units (<i>block 1</i>)		
Iblock_2	0.24	1.22
Attend Gram Saba meetings often (<i>do not attend often</i>)	1.46	6.49 *
Representative (<i>General Member</i>)	0.86	4.36 *
Length of project membership (months)	0.00	-0.05
Household poverty rank (<i>rank 1 – rich</i>)		
Rank 2	0.22	0.76
Rank 3	-0.39	-1.29
Rank 4 poor	-0.29	-0.95
Male (<i>female</i>)	0.62	1.53
Age (years)	0.01	1.12
Education group (<i>no education</i>)		
Primary School	0.44	1.73
Secondary School	0.51	2.26 *
At least college	0.90	2.50 *
Engaged in local wage employment (<i>not engaged in this activity</i>)	0.52	1.91 *
Employed in farming (<i>not engaged in this activity</i>)	0.04	0.18
Employed in the Government service (<i>not engaged in this activity</i>)	-0.86	-1.72
Daily wage households main source of livelihood (<i>not main source</i>)	-0.23	-1.09
Permanent emp. income households main source of livelihood (<i>not main source</i>)	-0.12	-0.28
Temporary emp. income households main source of livelihood (<i>not main source</i>)	-0.34	-1.11
Mixture income households main source of livelihood (<i>not main source</i>)	1.12	2.50 *
Land ownership (<1 hectare, <i>marginal holding</i>)		
1-2 hectares , small holding	-0.66	-2.68 *
3-4 hectares, medium holding	-0.82	-3.18 *
5+ hectares, large holding	-0.69	-2.48
Cattle holding (<i>0 cattle</i>)		
1-2 heads of cattle	0.43	1.44
3-4 heads of cattle	0.06	0.21
5-6 heads of cattle	-0.10	-0.30
7-8 heads of cattle	0.12	0.31
9+ heads of cattle	-0.49	-1.20
Land is irrigated (<i>not irrigated</i>)	0.56	1.51
House is pucca (<i>kutchra</i>)	0.16	0.76
No. of household members	0.01	0.65
No. of households in village of the same caste	0.00	-0.75
Constant	-2.24	-2.93 *
No of obs.		370

Pseudo R2	0.2710
Log Likelihood	-168.31

Notes: 1. The dependent variable identifies those who attended UG meetings from those who did not.

2. Omitted dummy variables are in *(italics)*.

3. * significant at the 10% level.

4. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Uttar Pradesh, Sodic lands Reclamation project (1999)

Table A8.1b Attendance MP (poverty rank)

Vfcaoft	Coef.	z
Regional Units (<i>block 1</i>)		
Iblock_2	-0.38	-1.75
Iblock_3	-0.10	-0.45
Iblock_4	-0.22	-1.44
Attend Gram Saba meetings often (<i>not attended often</i>)	1.13	9.62 *
Representative (<i>General member</i>)	1.10	5.96 *
Length of Membership of project (months)	0.08	1.94 *
Household poverty rank (<i>rank 1 – rich</i>)		
Rank 2	0.04	0.23
Rank 3	0.29	1.53
Rank 4 poor	0.15	0.71
Male (<i>female</i>)	0.80	4.26 *
Age (years)	0.00	-0.18
Education group (<i>no education</i>)		
Primary School	0.09	0.73
Secondary School	-0.02	-0.09
At least college	-0.15	-0.60
Engaged in local wage employment (<i>not engaged in this activity</i>)	0.01	0.09
Employed in farming (<i>not engaged in this activity</i>)	-0.23	-1.17
Employed in the Government service (<i>not engaged in this activity</i>)	-0.55	-1.39
Daily wage households main source of livelihood (<i>not main source</i>)	-0.11	-0.78
Permanent emp. income households main source of livelihood (<i>not main source</i>)	-0.31	-0.78
Temporary emp. income households main source of livelihood (<i>not main source</i>)	0.08	0.13
Mixture income households main source of livelihood (<i>not main source</i>)	-1.28	-1.45
Land ownership (<i><1 hectare, marginal holding</i>)		
1-2 hectares , small holding	-0.13	-0.75
3-4 hectares, medium holding	-0.18	-1.07
5+ hectares, large holding	-0.39	-2.12 *
Cattle holding (<i>0 cattle</i>)		
1-2 heads of cattle	-0.04	-0.23
3-4 heads of cattle	0.08	0.40

5-6 heads of cattle	0.04	0.20
7-8 heads of cattle	0.28	1.10
9+ heads of cattle	0.05	0.21
Land is irrigated (<i>not irrigated</i>)	0.08	0.47
House is pucca (<i>kutch</i>)	-0.09	-0.18
No. of household members	0.00	0.01
No. of households in village of the same caste	0.00	-1.56
Constant	-0.99	-2.29 *
No of obs		698
Pseudo R2		0.2479
Log Likelihood		-363.26

Notes: 1. The dependent variable identifies those who attended UG meetings from those who did not.

2. Omitted dummy variables are in (*italics*).

3. * significant at the 10% level.

4. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Madhya Pradesh, Forestry project (1999)

Table A8.1c Attendance AP (poverty rank)

Wuaaoft	Coef.	z
Regional Units (<i>block 1</i>)		
Ibloc_2	0.59	1.87
Ibloc_3	0.62	1.74
Ibloc_4	0.60	1.67
Ibloc_5	0.77	2.43 *
Ibloc_6	0.86	3.14 *
Ibloc_7	0.88	3.12 *
Ibloc_8	0.57	1.66
Ibloc_9	1.03	3.52 *
Ibloc_10	0.60	1.76
Ibloc_11	0.00	0.00
Ibloc_12	0.44	1.32
Ibloc_13	0.65	1.88
Ibloc_14	1.18	3.51 *
Ibloc_15	0.34	1.00
Attend Gram Saba meetings often (<i>did not attend often</i>)	0.63	4.46 *
Representative (<i>General member</i>)	1.29	6.43 *
Length of Membership of project (months)	-0.10	-1.60
Household poverty rank (<i>rank 1 – rich</i>)		
Rank 2	-0.31	-2.21 *
Rank 3	-0.27	-2.07 *
Rank 4 poor	-0.42	-3.04 *
Male (<i>female</i>)	0.33	1.58
Age (years)	0.00	0.89
Education group (<i>no education</i>)		

Primary School	-0.12	-0.99
Secondary School	0.03	0.23
At least college	0.36	1.88
Engaged in local wage employment (<i>not engaged in this activity</i>)	0.11	0.81
Employed in farming (<i>not engaged in this activity</i>)	-0.49	-2.91 *
Employed in the Government service (<i>not engaged in this activity</i>)	-0.84	-2.00 *
Daily wage households main source of livelihood (<i>not main source</i>)	-0.14	-1.01
Permanent emp. income households main source of livelihood (<i>not main source</i>)	-0.21	-0.86
Temporary emp. income households main source of livelihood (<i>not main source</i>)	0.36	1.08
Mixture income households main source of livelihood (<i>not main source</i>)	-0.14	-0.80
Land ownership (<1 hectare, marginal holding)		
1-2 hectares , small holding	-0.23	-1.42
3-4 hectares, medium holding	-0.16	-1.02
5+ hectares, large holding	-0.14	-0.78
Cattle holding (0 cattle)		
1-2 heads of cattle	-0.12	-0.96
3-4 heads of cattle	-0.32	-2.47 *
5-6 heads of cattle	-0.52	-2.91 *
7-8 heads of cattle	-0.22	-0.79
9+ heads of cattle	-0.27	-1.32
Land is irrigated (<i>not irrigated</i>)	0.04	0.34
House is pucca (<i>kutch</i>)	0.26	2.59 *
No. of household members	0.00	-0.17
No. of households in village of the same caste	0.00	-1.06
Constant	-0.54	-1.15
No of obs		972
Pseudo R2		0.1460
Log Likelihood		-533.50

Notes: 1. The dependent variable identifies those who attended UG meetings from those who did not.

2. Omitted dummy variables are in (*italics*).

3. * significant at the 10% level.

4. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Andhra Pradesh, Irrigation project (part of Economic Restructuring Project) (1999)

Table A8.2 b: Attendance UP (caste)

Sicaoft	Coef.	z
Regional Units (<i>block 1</i>)		
Iblock_2	0.22	1.11
Attend Gram Saba meetings often (<i>do not attend often</i>)	1.43	6.46 *
Representative (<i>General Member</i>)	0.82	4.26 *
Length of project membership (months)	0.00	-0.05
Caste (<i>Scheduled Caste</i>)		
Icaste_3	-0.09	-0.41
Icaste_4	0.31	1.30
Male (<i>female</i>)	0.62	1.58

Age (years)	0.01	1.00
Education group (<i>no education</i>)		
Primary School	0.42	1.65
Secondary School	0.47	2.12 *
At least college	0.84	2.39 *
Engaged in local wage employment (<i>not engaged in this activity</i>)	0.47	1.78
Employed in farming (<i>not engaged in this activity</i>)	-0.03	-0.14
Employed in the Government service (<i>not engaged in this activity</i>)	-0.73	-1.43
Daily wage households main source of livelihood (<i>not main source</i>)	-0.26	-1.22
Permanent emp. income households main source of livelihood (<i>not main source</i>)	-0.11	-0.25
Temporary emp. income households main source of livelihood (<i>not main source</i>)	-0.34	-1.12
Mixture income households main source of livelihood (<i>not main source</i>)	1.17	2.63 *
Land ownership (<1 hectare, marginal holding)		
1-2 hectares , small holding	-0.60	-2.46 *
3-4 hectares, medium holding	-0.73	-2.93 *
5+ hectares, large holding	-0.64	-2.37 *
Cattle holding (0 cattle)		
1-2 heads of cattle	0.49	1.69
3-4 heads of cattle	0.13	0.41
5-6 heads of cattle	0.08	0.24
7-8 heads of cattle	0.27	0.72
9+ heads of cattle	-0.32	-0.80
Land is irrigated (<i>not irrigated</i>)	0.49	1.34
House is pucca (<i>kutchha</i>)	0.17	0.82
No. of household members	0.01	0.58
No. of households in village of the same caste	0.00	-0.83
Constant	-2.35	-3.32 *
No of obs.		370
Pseudo R2		0.2631
Log Likelihood		-170.12

Notes: 1. The dependent variable identifies those who attended UG meetings from those who did not.

2. Omitted dummy variables are in (*italics*).

3. * significant at the 10% level.

4. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

5. Model I – without benefits, Model II with benefits.

Source: User Group Study Survey for Uttar Pradesh, Sodic lands Reclamation project (1999)

Table A8.2b Attendance MP (caste)

Vfcaoft	Coef.	Z
Regional Units (<i>block 1</i>)		
Iblock_2	-0.35	-1.65
Iblock_3	-0.08	-0.36
Iblock_4	-0.20	-1.32

Attend Gram Saba meetings often (<i>not attended often</i>)	1.11	9.48 *
Representative (<i>General member</i>)	1.10	5.94 *
Length of Membership of project (months)	0.08	1.96 *
Caste (<i>Scheduled Tribe</i>)		
Scheduled Caste	-0.07	-0.28
Other Backward Caste	0.03	0.20
General Caste group	-0.11	-0.52
Male (<i>female</i>)	0.80	4.30 *
Age (years)	0.00	-0.14
Education group (<i>no education</i>)		
Primary School	0.10	0.76
Secondary School	-0.04	-0.20
At least college	-0.18	-0.74
Engaged in local wage employment (<i>not engaged in this activity</i>)	0.04	0.29
Employed in farming (<i>not engaged in this activity</i>)	-0.22	-1.13
Employed in the Government service (<i>not engaged in this activity</i>)	-0.51	-1.31
Daily wage households main source of livelihood (<i>not main source</i>)	-0.08	-0.56
Permanent emp. income households main source of livelihood (<i>not main source</i>)	-0.34	-0.86
Temporary emp. income households main source of livelihood (<i>not main source</i>)	0.12	0.20
Mixture income households main source of livelihood (not main source)	-1.32	-1.49
Land ownership (<i><1 hectare, marginal holding</i>)		
1-2 hectares , small holding	-0.12	-0.69
3-4 hectares, medium holding	-0.21	-1.25
5+ hectares, large holding	-0.42	-2.31 *
Cattle holding (<i>0 cattle</i>)		
1-2 heads of cattle	-0.04	-0.23
3-4 heads of cattle	0.05	0.28
5-6 heads of cattle	0.01	0.07
7-8 heads of cattle	0.24	0.94
9+ heads of cattle	0.01	0.06
Land is irrigated (<i>not irrigated</i>)	0.05	0.30
House is pucca (<i>kutcha</i>)	-0.18	-0.36
No. of household members	0.00	-0.04
No. of households in village of the same caste	0.00	-1.51
Constant	-0.87	-2.15 *
No of obs		698
Pseudo R2		0.2447
Log Likelihood		-364.81

Notes: 1. The dependent variable identifies those who attended UG meetings from those who did not.

2. Omitted dummy variables are in (*italics*).

3. * significant at the 10% level.

4. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Madhya Pradesh, Forestry project (1999)

Table A8.2c Attendance AP (caste)

Wuaaoft	Coef.	Z
Regional Units (<i>block 1</i>)		
Ibloc_2	0.61	1.94 *
Ibloc_3	0.87	2.48 *
Ibloc_4	0.66	1.83
Ibloc_5	0.55	1.82
Ibloc_6	0.97	3.49 *
Ibloc_7	1.00	3.52 *
Ibloc_8	0.65	1.91 *
Ibloc_9	1.19	4.06 *
Ibloc_10	0.61	1.79
Ibloc_11	0.12	0.38
Ibloc_12	0.45	1.34
Ibloc_13	0.71	2.05 *
Ibloc_14	1.20	3.54 *
Ibloc_15	0.34	1.02
Attend Gram Saba meetings often (<i>did not attend often</i>)	0.59	4.35 *
Representative (<i>General member</i>)	1.31	6.56 *
Length of Membership of project (months)	-0.10	-1.69
Caste (<i>Other Backward Caste</i>)		
Scheduled Tribe	0.81	1.31
Scheduled Caste	0.34	2.33 *
General Caste group	0.26	2.32 *
Male (<i>female</i>)	0.26	1.30
Age (years)	0.00	0.92
Education group (<i>no education</i>)		
Primary School	-0.10	-0.88
Secondary School	0.07	0.53
At least college	0.39	2.08 *
Engaged in local wage employment (<i>not engaged in this activity</i>)	0.09	0.65
Employed in farming (<i>not engaged in this activity</i>)	-0.47	-2.86 *
Employed in the Government service (<i>not engaged in this activity</i>)	-0.79	-2.04 *
Daily wage households main source of livelihood (<i>not main source</i>)	-0.14	-1.00
Permanent emp. income households main source of livelihood (<i>not main source</i>)	-0.27	-1.12
Temporary emp. income households main source of livelihood (<i>not main source</i>)	0.39	1.23
Mixture income households main source of livelihood (<i>not main source</i>)	-0.02	-0.09
Land ownership (<1 hectare, <i>marginal holding</i>)		
1-2 hectares , small holding	-0.21	-1.27
3-4 hectares, medium holding	-0.08	-0.50
5+ hectares, large holding	-0.04	-0.24
Cattle holding (<i>0 cattle</i>)		
1-2 heads of cattle	-0.10	-0.79
3-4 heads of cattle	-0.32	-2.43 *
5-6 heads of cattle	-0.51	-2.89 *

7-8 heads of cattle	-0.27	-1.01
9+ heads of cattle	-0.21	-1.03
Land is irrigated (<i>not irrigated</i>)	0.07	0.63
House is pucca (<i>kutcha</i>)	0.24	2.47 *
No. of household members	0.00	0.33
No. of households in village of the same caste	0.00	-1.43
Constant	-1.10	-2.43 *
No of obs		999
Pseudo R2		0.1442
Log Likelihood		-547.67

Notes: 1. The dependent variable identifies those who attended UG meetings from those who did not.

2. Omitted dummy variables are in (*italics*).

3. * significant at the 10% level.

4. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Andhra Pradesh, Irrigation project (part of Economic Restructuring Project) (1999)

Table A8.3a-c Pairwise Correlations between Attendance and Receipt of Benefits
(significant at the 10% level).

Table 8.3a Uttar Pradesh

	sicaoft	bninpt	bnlnd	bninfo
sicaoft	1.0000			
bninpt	0.0271	1.0000		
bnlnd	0.2123*	0.3525*	1.0000	
bninfo	0.0849*	0.1471*	0.2247*	1.0000

Table 8.3b Madhya Pradesh

	vfcaoft	bninpt	bnlab	bnloan
vfcaoft	1.0000			
bninpt	0.0734*	1.0000		
bnlab	0.1293*	-0.3967*	1.0000	
bnloan	0.1249*	-0.0391	0.0892*	1.0000

Table 8.3c Andhra Pradesh

	wuaaoft	bninpt	bnlnd	bninfo	bnres
wuaaoft	1.0000				
bninpt	0.1345*	1.0000			
bnlnd	0.0794*	0.4365*	1.0000		
bninfo	0.0952*	-0.0096	-0.0742*	1.0000	
bnres	0.0535*	0.1530*	0.0841*	0.0305	1.0000

Correlates of who benefited from specified opportunities through User Group

Table A9.1a: Probit analysis of those who benefited from increased material inputs through the UG,
Uttar Pradesh

Bninpt	Coef.	Z
Regional Units (<i>block 1</i>)		
Iblock_2	0.68	3.45*
Length of project membership (months)	0.10	0.48
Representative (General Member)	0.05	0.96
Expected material inputs (did not expect)	1.77	7.34*
Expected increased production on own land (did not expect)	-0.67	-2.64*
Expected increased access to information (did not expect)	0.01	0.04
Male (female)	-0.35	-1.11
Age (years)	0.00	-0.63
Education group (no education)		
Primary School	-0.03	-0.12
Secondary School	0.24	1.02
At least college	0.09	0.24
Caste (Scheduled caste)		
Other Backward Caste	-0.41	-1.90*
General Caste Group	-0.26	-1.01
Engaged in local wage employment (not engaged in this activity)	-0.32	-1.22
Employed in farming (not engaged in this activity)	0.06	0.28
Employed in the Government service (not engaged in this activity)	-0.01	-0.02
Daily wage households main source of livelihood (not main source)	-0.28	-1.45
Permanent emp. income households main source of livelihood (not main source)	-1.27	-2.57*
Temporary emp. income households main source of livelihood (not main source)	-0.20	-0.72
Mixture income households main source of livelihood (not main source)	-0.28	-0.69
Land ownership (<1 hectare, marginal holding)		
1-2 hectares , small holding	0.50	2.16*
3-4 hectares, medium holding	-0.16	-0.71
5+ hectares, large holding	-0.15	-0.59
Cattle holding (0 cattle)		
1-2 heads of cattle	-0.45	-1.60
3-4 heads of cattle	-0.33	-1.17
5-6 heads of cattle	0.18	0.57
7-8 heads of cattle	-0.25	-0.67
9+ heads of cattle	0.55	1.41
Land is irrigated (not irrigated)		
House is pucca (kutchra)	-0.48	-1.35
Household poverty rank (rank 4 – poor)	0.15	0.74
Rank 2		
Rank 3	0.05	0.15
Rank 4 poor	-0.11	-0.33
No. of household members	-0.08	-0.25

No. of households in village of the same caste	-0.03	-1.89
Constant	0.00	0.90
No of obs		370
Pseudo R2		0.2480
Log Likelihood		-189.65

Notes: 1. The dependent variable is the importance of this benefit that respondent currently receives from the project group, re-scaled 1 is important or very important.

2. Omitted dummy variables are in *(italics)*.

3. * significant at the 10% level.

4. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Uttar Pradesh, Sodic lands Reclamation project (1999)

Table A9.1b: Probit analysis of those who benefited from increased production of land, Uttar Pradesh

Bnlnd	Coef.	z
Regional Units (<i>block 1</i>)		
Iblock_2	0.29	1.51
Length of project membership (months)	0.36	1.82
Representative (<i>General Member</i>)	0.01	0.24
Expected material inputs (<i>did not expect</i>)	0.06	0.31
Expected increased production on own land (<i>did not expect</i>)	1.05	4.58*
Expected increased access to information (<i>did not expect</i>)	0.60	2.96*
Male (<i>female</i>)	-0.28	-0.87
Age (years)	0.00	0.42
Education group (<i>no education</i>)		
Primary School	0.23	0.92
Secondary School	0.05	0.23
At least college	0.18	0.49
Caste (<i>Scheduled Caste</i>)		
Other Backward Caste	-0.68	-3.16*
General Caste Group	-0.21	-0.78
Engaged in local wage employment (<i>not engaged in this activity</i>)	-0.77	-2.91*
Employed in farming (<i>not engaged in this activity</i>)	-0.33	-1.57
Employed in the Government service (<i>not engaged in this activity</i>)	0.28	0.56
Daily wage households main source of livelihood (<i>not main source</i>)	0.14	0.72
Permanent emp. income households main source of livelihood (<i>not main source</i>)	-0.21	-0.48
Temporary emp. income households main source of livelihood (<i>not main source</i>)	-0.11	-0.40
Mixture income households main source of livelihood (<i>not main source</i>)	0.33	0.73
Land ownership (<i><1 hectare, marginal holding</i>)		
1-2 hectares, small holding	0.45	1.98*
3-4 hectares, medium holding	0.31	1.32
5+ hectares, large holding	0.13	0.50
Cattle holding (<i>0 cattle</i>)		
1-2 heads of cattle	0.01	0.05
3-4 heads of cattle	0.04	0.14
5-6 heads of cattle	0.36	1.16
7-8 heads of cattle	0.53	1.42

9+ heads of cattle	0.20	0.53
Land is irrigated (<i>not irrigated</i>)		
House is pucca (<i>kutchha</i>)	-0.09	-0.27
Household poverty rank (<i>rank 1 – rich</i>)	-0.15	-0.74
Rank 2		
Rank 3	-0.15	-0.50
Rank 4 poor	-0.21	-0.69
No. of household members	-0.44	-1.38
No. of households in village of the same caste	-0.02	-1.21
Constant	0.00	0.68
No of obs		370
Pseudo R2		0.2165
Log Likelihood		-189.32

Notes: 1. The dependent variable is the importance of this benefit that respondent currently receives from the project group, re-scaled 1 is important or very important.

2. Omitted dummy variables are in (*italics*).

3. * significant at the 10% level.

4. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Uttar Pradesh, Sodic lands Reclamation project (1999)

Table A9.1c: Probit analysis of those who benefited from increased access to information through the UG, Uttar Pradesh

Bninfo	Coef.	z
Regional Units (<i>block 1</i>)		
Iblock_2	0.31	1.22
Length of project membership (months)	-0.44	-1.59
Representative (<i>General Member</i>)	-0.06	-0.79
Expected material inputs (<i>did not expect</i>)	0.12	0.42
Expected increased production on own land (<i>did not expect</i>)	0.18	0.58
Expected increased access to information (<i>did not expect</i>)	1.45	6.56 *
Male (<i>female</i>)	-0.34	-0.77
Age (years)	0.00	-0.11
Education group (<i>no education</i>)		
Primary School	0.31	1.05
Secondary School	0.65	2.28 *
At least college	1.44	3.38 *
Caste (<i>Scheduled Caste</i>)		
Other Backward Caste	-0.27	-0.95
General Caste Group	-0.08	-0.25
Engaged in local wage employment (<i>not engaged in this activity</i>)	-0.75	-1.57
Employed in farming (<i>not engaged in this activity</i>)	0.04	0.13
Employed in the Government service (<i>not engaged in this activity</i>)	-0.23	-0.39
Daily wage households main source of livelihood (<i>not main source</i>)	0.00	-0.02
Permanent emp. income households main source of livelihood (<i>not main source</i>)	-0.46	-0.81
Temporary emp. income households main source of livelihood (<i>not main source</i>)	0.08	0.22
Mixture income households main source of livelihood (<i>not main source</i>)	-0.37	-0.73
Land ownership (<1 hectare, marginal holding)		
1-2 hectares , small holding	-0.22	-0.70

3-4 hectares, medium holding	0.25	0.86
5+ hectares, large holding	0.16	0.50
Cattle holding (<i>0 cattle</i>)		
1-2 heads of cattle	-0.23	-0.61
3-4 heads of cattle	-0.07	-0.19
5-6 heads of cattle	-0.31	-0.76
7-8 heads of cattle	-0.13	-0.28
9+ heads of cattle	0.34	0.72
Land is irrigated (<i>not irrigated</i>)	0.12	0.26
House is pucca (<i>kutchra</i>)	-0.57	-2.13 *
Household poverty rank (<i>rank 4 – poor</i>)		
Rank 2	0.52	1.35
Rank 3	0.55	1.28
Rank 4 poor	0.74	1.67
No. of household members	0.02	0.82
No. of households in village of the same caste	-0.01	-1.25
Constant	-1.72	0.98
No of obs.		370
Pseudo R2		0.3187
Log Likelihood		-111.73

Notes: 1. The dependent variable is the importance of this benefit that respondent currently receives from the project group, re-scaled 1 is important or very important.

2. Omitted dummy variables are in (*italics*).

3. * significant at the 10% level.

4. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Uttar Pradesh, Sodic lands Reclamation project (1999)

Table A9.2a: Probit analysis of those who benefited from increased material inputs, Madhya Pradesh

Bninpt	Coef.	z
Regional Units (<i>block 1</i>)		
Iblock_2	-1.69	-6.73 *
Iblock_3	-0.33	-1.06
Iblock_4	-2.51	-11.43 *
Length of Membership of project (months)	-0.11	-1.79
Representative (<i>General member</i>)	0.51	2.71 *
Expected increased material inputs (<i>did not expect</i>)	1.57	6.71 *
Expected increased labour opportunities (<i>did not expect</i>)	0.25	1.43
Expected increased access to loans (<i>did not expect</i>)	-0.73	-3.15 *
Male (<i>female</i>)	0.05	0.23
Age (years)	0.00	0.34
Education group (<i>no education</i>)		
Primary School	-0.24	-1.54
Secondary School	-0.57	-2.33 *
At least college	-0.21	-0.68
Caste (<i>Scheduled Tribe</i>)		

Scheduled Caste	0.40	1.29
Other Backward Caste	0.18	0.88
General Caste group	0.33	1.33
Engaged in local wage employment (<i>not engaged in this activity</i>)	0.12	0.64
Employed in farming (<i>not engaged in this activity</i>)	-0.24	-1.00
Employed in the Government service (<i>not engaged in this activity</i>)	-0.07	-0.14
Daily wage households main source of livelihood (<i>not main source</i>)	-0.30	-1.78
Permanent emp. income households main source of livelihood (<i>not main source</i>)	-0.66	-1.40
Temporary emp. income households main source of livelihood (<i>not main source</i>)	-0.98	-1.14
Mixture income households main source of livelihood (<i>not main source</i>)	1.34	1.60
Land ownership (<1 hectare, marginal holding)		
1-2 hectares , small holding	0.23	1.12
3-4 hectares, medium holding	0.32	1.50
5+ hectares, large holding	-0.01	-0.03
Cattle holding (0 cattle)		
1-2 heads of cattle	0.10	0.44
3-4 heads of cattle	-0.09	-0.36
5-6 heads of cattle	0.04	0.13
7-8 heads of cattle	-0.03	-0.08
9+ heads of cattle	0.11	0.34
Land is irrigated (<i>not irrigated</i>)	-0.66	-3.28*
House is pucca (<i>kutchha</i>)	-0.22	-0.48
Household poverty rank (<i>rank 1 –rich</i>)		
Rank 2	-0.38	-1.72
Rank 3	-0.14	-0.60
Rank 4 poor	-0.14	-0.58
No. of household members	-0.01	-0.47
No. of households in village of the same caste	0.00	2.27*
Constant	2.04	3.71*
No of obs		698
Pseudo R2		0.5217
Log Likelihood		-231.38

Notes: 1. The dependent variable is the importance of this benefit that respondent currently receives from the project group, re-scaled 1 is important or very important.

2. Omitted dummy variables are in (*italics*).

3. * significant at the 10% level.

4. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Madhya Pradesh, Forestry project (1999)

Table A9.2b: Probit analysis of those who benefited from increased labour opportunities, Madhya Pradesh

Bnlab	Coef.	z
Regional Units (<i>block 1</i>)		
Iblock_2	1.28	5.35*
Iblock_3	-0.32	-0.91
Iblock_4	1.92	10.01*
Representative (<i>General member</i>)	-0.04	-0.26
Length of Membership of project (months)	0.05	1.07

Expected increased material inputs (<i>did not expect</i>)	0.08	0.44
Expected increased labour opportunities (<i>did not expect</i>)	0.54	3.80*
Expected increased access to loans (<i>did not expect</i>)	0.18	0.97
Male (<i>female</i>)	-0.05	-0.24
Age (years)	0.00	0.02
Education group (<i>no education</i>)		
Primary School	0.16	1.15
Secondary School	0.14	0.68
At least college	-0.17	-0.56
Caste (<i>Scheduled Tribe</i>)		
Scheduled Caste	-0.65	-2.27*
Other Backward Caste	-0.32	-1.77
General Caste group	-0.43	-1.84
Engaged in local wage employment (<i>not engaged in this activity</i>)	0.83	4.54*
Employed in farming (<i>not engaged in this activity</i>)	0.16	0.79
Employed in the Government service (<i>not engaged in this activity</i>)	0.18	0.44
Daily wage households main source of livelihood (<i>not main source</i>)	-0.01	-0.06
Permanent emp. income households main source of livelihood (<i>not main source</i>)	0.08	0.19
Temporary emp. income households main source of livelihood (<i>not main source</i>)	-0.09	-0.17
Land ownership (<i><1 hectare, marginal holding</i>)		
1-2 hectares , small holding	0.07	0.42
3-4 hectares, medium holding	0.04	0.21
5+ hectares, large holding	-0.51	-2.49*
Cattle holding (0 cattle)		
1-2 heads of cattle	0.14	0.70
3-4 heads of cattle	-0.04	-0.21
5-6 heads of cattle	0.08	0.34
7-8 heads of cattle	0.26	0.91
9+ heads of cattle	0.62	2.31*
Land is irrigated (<i>not irrigated</i>)	0.00	0.02
House is pucca (<i>kutch</i>)	0.19	0.37
Household poverty rank (<i>rank 1 – rich</i>)		
Rank 2	0.25	1.22
Rank 3	0.22	1.00
Rank 4 – poor	0.69	2.96*
No. of household members	-0.01	-0.44
No. of households in village of the same caste	-0.01	-3.83*
Constant	-2.72	-5.35*
No of obs		693
Pseudo R2		0.3438
Log Likelihood		-300.53

Notes: 1. The dependent variable is the importance of this benefit that respondent currently receives from the project group, re-scaled 1 is important or very important.

2. Omitted dummy variables are in (*italics*).

3. * significant at the 10% level.

4. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Madhya Pradesh, Forestry project (1999)

Table A9.2c: Probit analysis of those who benefited from loan opportunities, Madhya Pradesh

	Coef.	z
Bnloan		
Regional Units (<i>block 1</i>)		
Iblock_2	-0.11	-0.42
Iblock_4	-0.40	-2.14*
Representative (<i>General member</i>)	-0.08	-0.40
Length of Membership of project (months)	0.13	3.03*
Expected increased material inputs (<i>did not expect</i>)	0.40	2.21*
Expected increased labour opportunities (<i>did not expect</i>)	-0.08	-0.48
Expected increased access to loans (<i>did not expect</i>)	0.69	3.79*
Male (<i>female</i>)	0.00	0.02
Age (years)	-0.01	-1.03
Education group (<i>no education</i>)		
Primary School	0.05	0.30
Secondary School	-0.43	-1.75
At least college	-0.42	-1.43
Caste (<i>Scheduled Tribe</i>)		
Scheduled Caste	0.07	0.23
Other Backward Caste	-0.17	-0.85
General Caste group	0.19	0.77
Engaged in local wage employment (<i>not engaged in this activity</i>)	0.12	0.66
Employed in farming (<i>not engaged in this activity</i>)	-0.23	-0.91
Employed in the Government service (<i>not engaged in this activity</i>)	0.79	1.64
Daily wage households main source of livelihood (<i>not main source</i>)	-0.10	-0.60
Permanent emp. income households main source of livelihood (<i>not main source</i>)	-0.98	-1.44
Land ownership (<1 hectare, <i>marginal holding</i>)		
1-2 hectares , small holding	-0.35	-1.84
3-4 hectares, medium holding	-0.26	-1.29
5+ hectares, large holding	-0.71	-2.81*
Cattle holding (<i>0 cattle</i>)		
1-2 heads of cattle	0.10	0.42
3-4 heads of cattle	0.08	0.36
5-6 heads of cattle	0.01	0.04
7-8 heads of cattle	-0.14	-0.46
9+ heads of cattle	-0.05	-0.17
Land is irrigated (<i>not irrigated</i>)	0.44	2.47*
House is pucca (<i>kutchha</i>)	0.63	1.20
Household poverty rank (<i>rank 1 – rich</i>)		
Rank 2	0.48	2.23*
Rank 3	-0.15	-0.60
Rank 4 – poor	-0.04	-0.17
No. of household members	0.01	0.25
No. of households in village of the same caste	0.00	-1.44
Constant	-0.86	-1.63

No of obs	631
Pseudo R2	0.1733
Log Likelihood	-250.14

Notes: 1. The dependent variable is the importance of this benefit that respondent currently receives from the project group, re-scaled 1 is important or very important.

2. Omitted dummy variables are in *(italics)*.

3. * significant at the 10% level.

4. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Madhya Pradesh, Forestry project (1999)

Table A9.3a: Probit analysis of those who benefited from increased material inputs, Andhra Pradesh

	Coef.	z
Bninpt		
Regional Units (<i>block 1</i>)		
Ibloc_2	0.41	1.42
Ibloc_3	-0.05	-0.15
Ibloc_4	-0.24	-0.69
Ibloc_5	-0.56	-1.67
Ibloc_6	0.25	0.99
Ibloc_7	0.19	0.71
Ibloc_8	-1.19	-2.51 *
Ibloc_9	-0.25	-0.80
Ibloc_10	-1.31	-2.82 *
Ibloc_11	-0.16	-0.61
Ibloc_12	-0.83	-2.24 *
Ibloc_13	0.17	0.49
Ibloc_14	-0.97	-2.57 *
Ibloc_15	-0.03	-0.11
Representative (<i>General member</i>)	0.20	0.95
Length of Membership of project (months)	-0.01	-0.14
Expected increased material inputs (<i>did not expect</i>)	1.96	14.97 *
Expected increased production on own land (<i>did not expect</i>)	0.29	2.38 *
Expected increased access to information (<i>did not expect</i>)	0.24	1.44
Expected increased production on common resources (<i>did not expect</i>)	0.46	2.82 *
Male (<i>female</i>)	0.15	0.61
Age (years)	0.01	1.79
Education group (<i>no education</i>)		
Primary School	0.11	0.77
Secondary School	0.10	0.59
At least college	0.34	1.47
Caste (<i>Other Backward Caste</i>)		
Scheduled Tribe	-0.17	-0.22
Scheduled Caste	-0.16	-0.90
General Caste group	0.05	0.39
Engaged in local wage employment (<i>not engaged in this activity</i>)	0.17	1.01
Employed in farming (<i>not engaged in this activity</i>)	-0.24	-1.28

Employed in the Government service (<i>not engaged in this activity</i>)	0.21	0.59
Daily wage households main source of livelihood (<i>not main source</i>)	0.11	0.63
Permanent emp. income households main source of livelihood (<i>not main source</i>)	0.04	0.16
Temporary emp. income households main source of livelihood (<i>not main source</i>)	0.25	0.64
Mixture income households main source of livelihood (<i>not main source</i>)	-0.06	-0.32
Land ownership (<1 hectare, marginal holding)		
1-2 hectares , small holding	0.31	1.43
3-4 hectares, medium holding	0.14	0.70
5+ hectares, large holding	0.24	1.09
Cattle holding (0 cattle)		
1-2 heads of cattle	-0.03	-0.21
3-4 heads of cattle	-0.03	-0.18
5-6 heads of cattle	0.08	0.40
7-8 heads of cattle	-0.01	-0.02
9+ heads of cattle	0.02	0.07
Land is irrigated (<i>not irrigated</i>)	-0.05	-0.36
House is pucca (<i>kutch</i>)	0.09	0.78
Household poverty rank (<i>rank 1 – rich</i>)		
Rank 2	0.03	0.16
Rank 3	-0.19	-1.24
Rank 4 poor	-0.33	-2.04 *
No. of household members	0.02	1.18
No. of households in village of the same caste	0.00	0.84
Constant	-1.83	-3.66 *
No of obs		972
Pseudo R2		0.4340
Log Likelihood		-359.51

Notes: 1. The dependent variable is the importance of this benefit that respondent currently receives from the project group, re-scaled 1 is important or very important.

2. Omitted dummy variables are in (*italics*).

3. * significant at the 10% level.

4. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Andhra Pradesh, Irrigation project (part of Economic Restructuring Project) (1999)

Table A9.3b: Probit analysis of those who benefited from increased production on their own land, Andhra Pradesh

Bnlnd	Coef.	z
Regional Units (<i>block 1</i>)		
Ibloc_2	0.63	1.57
Ibloc_3	0.56	1.27
Ibloc_4	0.67	1.46
Ibloc_5	-0.51	-0.82
Ibloc_6	0.67	1.83
Ibloc_7	0.87	2.33 *
Ibloc_8	-0.36	-0.63
Ibloc_9	1.32	3.36 *

Ibloc_11	0.67	1.75
Ibloc_12	-0.36	-0.59
Ibloc_13	0.09	0.17
Ibloc_14	0.07	0.14
Ibloc_15	0.19	0.39
Representative (<i>General member</i>)	0.37	1.47
Length of Membership of project (months)	0.02	0.50
Expected increased material inputs (<i>did not expect</i>)	0.85	6.17*
Expected increased production on own land (<i>did not expect</i>)	0.97	6.97*
Expected increased access to information (<i>did not expect</i>)	0.33	1.68*
Expected increased production on common resources (<i>did not expect</i>)	0.32	2.05*
Male (<i>female</i>)	0.20	0.78
Age (years)	0.02	3.74*
Education group (<i>no education</i>)		
Primary School	0.07	0.43
Secondary School	0.12	0.62
At least college	-0.01	-0.03
Caste (Other Backward Caste)		
Scheduled Caste	-0.10	-0.53
General Caste group	-0.15	-1.01
Engaged in local wage employment (<i>not engaged in this activity</i>)	0.09	0.54
Employed in farming (<i>not engaged in this activity</i>)	-0.38	-1.79
Employed in the Government service (<i>not engaged in this activity</i>)	-0.35	-0.57
Daily wage households main source of livelihood (<i>not main source</i>)	0.18	1.07
Permanent emp. income households main source of livelihood (<i>not main source</i>)	-0.64	-1.73
Temporary emp. income households main source of livelihood (<i>not main source</i>)	-0.40	-0.74
Mixture income households main source of livelihood (<i>not main source</i>)	-0.29	-1.23
Land ownership (<1 hectare, marginal holding)		
1-2 hectares , small holding	0.04	0.21
3-4 hectares, medium holding	-0.67	-3.19*
5+ hectares, large holding	-0.56	-2.32*
Cattle holding (<i>0 cattle</i>)		
1-2 heads of cattle	-0.28	-1.66
3-4 heads of cattle	0.02	0.13
5-6 heads of cattle	0.05	0.22
7-8 heads of cattle	0.34	0.99
9+ heads of cattle	0.25	0.91
Land is irrigated (<i>not irrigated</i>)	0.06	0.42
House is pucca (<i>kutchha</i>)	0.08	0.62
Household poverty rank (<i>rank 1 – rich</i>)		
Rank 2	-0.31	-1.72
Rank 3	-0.55	-3.15*
Rank 4 poor	-0.67	-3.64*
No. of household members	-0.02	-0.99
No. of households in village of the same caste	0.00	-1.67
Constant	-2.50	-4.11*
No of obs		931

Pseudo R2	0.4066
Log Likelihood	-303.48

Notes: 1. The dependent variable is the importance of this benefit that respondent currently receives from the project group, re-scaled 1 is important or very important.

2. Omitted dummy variables are in *(italics)*.

3. * significant at the 10% level.

4. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Andhra Pradesh, Irrigation project (part of Economic Restructuring Project) (1999)

Table A9.3c: Probit analysis of those who benefited from increased access to information, Andhra Pradesh

Bninfo	Coef.	z
<i>Regional Units (block 1)</i>		
Ibloc_2	0.94	2.49*
Ibloc_3	0.57	1.34
Ibloc_4	1.38	3.43*
Ibloc_5	0.88	2.23*
Ibloc_6	0.42	1.17
Ibloc_7	0.36	0.94
Ibloc_8	0.39	0.89
Ibloc_9	-0.24	-0.51
Ibloc_10	0.13	0.28
Ibloc_11	-0.13	-0.33
Ibloc_12	0.17	0.39
Ibloc_13	0.49	1.07
Ibloc_14	0.83	2.07*
Ibloc_15	0.36	0.85
Length of Membership of project (months)	0.34	1.52
Representative (<i>General member</i>)	-0.02	-0.45
Expected increased material inputs (<i>did not expect</i>)	0.09	0.59
Expected increased production on own land (<i>did not expect</i>)	0.49	3.21*
Expected increased access to information (<i>did not expect</i>)	0.63	3.51*
Expected increased production on common resources (<i>did not expect</i>)	-0.65	-2.62*
Male (<i>female</i>)	0.13	0.42
Age (years)	0.00	-0.48
<i>Education group (no education)</i>		
Primary School	0.16	0.99
Secondary School	-0.15	-0.80
At least college	-0.05	-0.20
<i>Caste (Other Backward Caste)</i>		
Scheduled Caste	-0.38	-1.64
General Caste group	-0.18	-1.26
Engaged in local wage employment (<i>not engaged in this activity</i>)	-0.10	-0.55
Employed in farming (<i>not engaged in this activity</i>)	-0.03	-0.12
Employed in the Government service (<i>not engaged in this activity</i>)	-0.73	-1.20
Daily wage households main source of livelihood (<i>not main source</i>)	0.09	0.50
Permanent emp. income households main source of livelihood (<i>not main source</i>)	-0.08	-0.24

Temporary emp. income households main source of livelihood (<i>not main source</i>)	0.02	0.04
Mixture income households main source of livelihood (<i>not main source</i>)	-0.18	-0.70
Land ownership (<1 hectare, marginal holding)		
1-2 hectares, small holding	-0.12	-0.43
3-4 hectares, medium holding	0.16	0.69
5+ hectares, large holding	0.47	1.89
Cattle holding (0 cattle)		
1-2 heads of cattle	0.11	0.64
3-4 heads of cattle	0.10	0.53
5-6 heads of cattle	0.32	1.42
7-8 heads of cattle	0.37	1.08
9+ heads of cattle	-0.38	-1.26
Land is irrigated (<i>not irrigated</i>)	-0.18	-1.17
House is pucca (<i>kutchha</i>)	0.19	1.35
Household poverty rank (<i>rank 1 – rich</i>)		
Rank 2	0.05	0.23
Rank 3	0.47	2.49*
Rank 4 poor	0.49	2.53*
No. of household members	-0.02	-1.12
No. of households in village of the same caste	0.00	-0.90
Constant	-2.23	-3.47*
No of obs		967
Pseudo R2		0.1925
Log Likelihood		-268.26

Notes: 1. The dependent variable is the importance of this benefit that respondent currently receives from the project group, re-scaled 1 is important or very important.

2. Omitted dummy variables are in (*italics*).

3. * significant at the 10% level.

4. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Andhra Pradesh, Irrigation project (part of Economic Restructuring Project) (1999)

Table A9.3d: Probit analysis of those who benefited from increased production on common resources, Andhra Pradesh

Bnres	Coef.	z
Regional Units (<i>block 1</i>)		
Ibloc_2	0.00	0.01
Ibloc_3	0.65	1.65
Ibloc_4	1.25	2.43*
Ibloc_5	-0.19	-0.66
Ibloc_6	-0.70	-2.82*
Ibloc_7	-1.37	-5.08*
Ibloc_8	-0.10	-0.33
Ibloc_9	-0.58	-1.98*
Ibloc_10	-0.62	-2.03*
Ibloc_11	-0.30	-1.18
Ibloc_12	-0.41	-1.42
Ibloc_13	0.08	0.23

Ibloc_14	-0.08	-0.27
Ibloc_15	0.03	0.09
Representative (<i>General member</i>)	-0.01	-0.05
Length of Membership of project (months)	0.01	0.41
Expected increased material inputs (<i>did not expect</i>)	0.36	2.79*
Expected increased production on own land (<i>did not expect</i>)	0.75	6.98*
Expected increased access to information (<i>did not expect</i>)	0.55	3.57*
Expected increased production on common resources (<i>did not expect</i>)	1.33	8.53*
Male (<i>female</i>)	0.04	0.19
Age (years)	0.00	0.86
Education group (<i>no education</i>)		
Primary School	-0.05	-0.36
Secondary School	-0.20	-1.36
At least college	0.11	0.53
Caste (<i>Other Backward Caste</i>)		
Scheduled Tribe	1.49	1.49
Scheduled Caste	0.13	0.82
General Caste group	0.06	0.48
Engaged in local wage employment (<i>not engaged in this activity</i>)	0.16	1.09
Employed in farming (<i>not engaged in this activity</i>)	0.23	1.31
Employed in the Government service (<i>not engaged in this activity</i>)	0.14	0.34
Daily wage households main source of livelihood (<i>not main source</i>)	0.00	-0.02
Permanent emp. income households main source of livelihood (<i>not main source</i>)	0.44	1.65
Temporary emp. income households main source of livelihood (<i>not main source</i>)	-0.06	-0.16
Mixture income households main source of livelihood (<i>not main source</i>)	-0.48	-2.78*
Land ownership (<1 hectare, marginal holding)		
1-2 hectares , small holding	0.22	1.20
3-4 hectares, medium holding	0.35	1.94*
5+ hectares, large holding	0.44	2.28*
Cattle holding (<i>0 cattle</i>)		
1-2 heads of cattle	0.22	1.63
3-4 heads of cattle	0.18	1.30
5-6 heads of cattle	-0.08	-0.45
7-8 heads of cattle	-0.07	-0.23
9+ heads of cattle	-0.34	-1.68
Land is irrigated (<i>not irrigated</i>)	0.22	1.86
House is pucca (<i>kutch</i>)	0.16	1.50
Household poverty rank (<i>rank 1 –rich</i>)		
Rank 2	-0.20	-1.37
Rank 3	-0.29	-2.05*
Rank 4 poor	-0.38	-2.63*
No. of household members	-0.01	-1.24
No. of households in village of the same caste	0.00	2.00*
Constant	-0.90	-1.99*
No of obs		972
Pseudo R2		0.2572
Log Likelihood		-477.05

Notes: 1. The dependent variable is the importance of this benefit that respondent currently receives from the project group, re-scaled 1 is important or very important.

2. Omitted dummy variables are in (*italics*).

3. * significant at the 10% level.

4. Pseudo R2 = $1 - L_u/L_r$, where L_u is the unrestricted log-likelihood and L_r is the log-likelihood when all non-intercept coefficients are restricted to be equal to zero (see McFadden, 1974).

Source: User Group Study Survey for Andhra Pradesh, Irrigation project (part of Economic Restructuring Project) (1999)

**India User Group Study
Survey Questionnaire: Project Staff**

1.0 Project Information

<input type="checkbox"/>	UP Sodic Soils
<input type="checkbox"/>	UP Basic Education
<input type="checkbox"/>	MP Forestry
<input type="checkbox"/>	AP Ec. Restructuring

Survey No.	_____
------------	-------

Interviewed by	_____
Interview Date	_____
Team Leader	_____

1.1 Name of District _____

1.2 Name of Block _____

2.0 General Information

2.1 Person Interviewed Project Staff
 NGO

2.2 Sex Male (code M)
 Female (code F)

2.3 Position for the person being interviewed

<input type="checkbox"/>	State Level
<input type="checkbox"/>	District Level
<input type="checkbox"/>	Block Level
<input type="checkbox"/>	Village Level
<input type="checkbox"/>	Position _____

2.4 No. of years Involved In Project

of years involved in the project.

2.5 Years Involved In Village Development

years

3.0 User Group Formation

3.1 What are the types of groups formed under the project?

(a.) _____

(b.) _____

(c.) _____

(d.) _____

(e.) _____

3.2 (a) What was the approach of forming the project group in the villages?

(b) Who were the project staff involved?

3.3 Who were the local people involved in the formation of the project groups?

<input type="checkbox"/>	Pradhan/Sarpanch
<input type="checkbox"/>	Other representatives of gram panchayat
<input type="checkbox"/>	Traditional leader
<input type="checkbox"/>	Local people selected by the project
<input type="checkbox"/>	Other _____

3.4 What was their role?

(a.) _____

(b.) _____

(c.) _____

3.5 Was the process of formation the same in every village?

<input type="checkbox"/>	yes
<input type="checkbox"/>	no
<input type="checkbox"/>	don't know

3.6 If no, how did it differ?

- (a.) _____
- (b.) _____
- (c.) _____

3.7 What made it differ?

- (a.) _____
- (b.) _____
- (c.) _____

3.8 Did any village groups performing similar activities exist before the project started?

- yes
- no
- don't know

3.9 If yes in what form did they exist?

3.10 Approximate number of villages in the district where these groups existed before the project

#

3.11 Are there any criteria for group membership?

3.12 Is there any tendency for any group(s) to be relatively more involved in the project groups than others?

3.13 What is the range of number of members in a project group?

#

4.0 Rules Governing User Group & Links to Project Staff

4.1 What are the formal rules of the organization in relation to:

- (a.) electing and changing officials (right of recall)
- (b.) holding meetings
- (c.) making decisions
- (d.) conducting financial transactions
- (e.) benefit-sharing
- (f.) dealing with complaints about group performance
- (g.) sharing information
- (h.) maintenance of records

- (i.) implementation of activities
- (j.) people's contribution
- (k.) other _____

4.3 What form of relationships exist between the project group in the village and the project staff?

Relationship	Purpose of links	Purpose Served (Y/N)	Reason
fixed and organized meetings			
informal interactions			
training			
capacity building			
reporting			
monitoring			
other			

5.0 Project Objectives & User Group Effectiveness

5.1 In your view, what are the main project objectives? =>

- (a.) _____
- (b.) _____
- (c.) _____

5.2 How well do project gorups help to achieve these objectives?

<input type="checkbox"/>	(a.) score 1 to 10
<input type="checkbox"/>	(b.) score 1 to 10
<input type="checkbox"/>	(c.) score 1 to 10

5.3 What factors contribute to effective project groups?

- (a.) _____
- (b.) _____
- (c.) _____
- (d.) _____
- (e.) _____

5.4 What factors inhibit effectiveness of project groups?

- (a.) _____
- (b.) _____
- (c.) _____
- (d.) _____
- (e.) _____

5.5 What factors enhance inclusiveness (i.e., participation of all segments) in project groups?

- (a.) _____
- (b.) _____

- (c.) _____
- (d.) _____
- (e.) _____

5.6 What factors inhibit inclusiveness in project groups?

- (a.) _____
- (b.) _____
- (c.) _____
- (d.) _____
- (e.) _____

5.7 How many project groups are there in the district? # of project groups

5.8 How many non-functional groups are there in the district? # of project groups

India User Group Study
Survey Questionnaire: Non-Functional Groups

1.0 Project Information

<input type="checkbox"/>	UP Sodic Soils
<input type="checkbox"/>	UP Basic Education
<input type="checkbox"/>	MP Forestry
<input type="checkbox"/>	AP Ec. Restructuring

Survey No.	
Interviewed by	
Interview Date	
Team Leader	

- 1.1 Name of District _____
- 1.2 Name of Block _____
- 1.3 Name of Revenue Village _____
- 1.4 Name of Gram Panchayat _____
- 1.5 No. of Hamlets _____
- 1.6 Village/hamlets visited _____

2.0 Open Discussion

2.1 Is there a project group in your village?

Yes
 No
 Don't Know

2.2 If Yes (above), how many times does the group meet?

12 times per year
 4 times per year
 2 times per year
 1 time per year
 don't know

2.3 What is the reason for the low number of meetings?

the representatives do not call for any meetings
 it is only important for representatives to meet, not members
 the project staff do not come here, hence, no meeting
 there is not enough unity in the village to make a functional project group
 people are not interested--they perceive few benefits from the project group
 village is scattered
 village is socially heterogenous
 other _____
 other _____
 other _____

2.4 How many times do project staff members visit your village?

once every week once every year
 once a month never
 once every 6 months don't know

2.5 Any other information regarding non functional groups which you would like to give?

**India User Group Study
Survey Questionnaire: Village Information**

1.0 Project Information

<input type="checkbox"/>	UP Sodic Soils
<input type="checkbox"/>	UP Basic Education
<input type="checkbox"/>	MP Forestry
<input type="checkbox"/>	AP Ec. Restructuring

Survey No.	
Interviewed by	
Interview Date	
Team Leader	

1.1 Name of District _____

1.6 Distance to district HQ?

1.2 Name of Block _____

km

1.3 Name of Gram Panchayat _____

1.7 Is there a link to an All Weather Road?

1.4 Name of Revenue Village _____

yes
 no

Name of	No. of hh.
Main village _____	<input type="text"/>
Hamlet 1 _____	<input type="text"/>
Hamlet 2 _____	<input type="text"/>
Hamlet 3 _____	<input type="text"/>
Hamlet 4 _____	<input type="text"/>
Hamlet 5 _____	<input type="text"/>
Hamlet 6 _____	<input type="text"/>
Hamlet 7 _____	<input type="text"/>
Hamlet 8 _____	<input type="text"/>
Total _____	<input type="text"/>

2.0 Village Data

2.1 Educational Facilities in Revenue Village

2.5 Literacy Level (%) M F

2.2 Does the village have a primary school?

yes
 no

2.6 % Land Irrigated

2.3 Does the village have a secondary school?

yes
 no

2.7 Large farmers #
Medium farmers #
Small and marginal farmers #
Landless #

2.4 Does the village have a high school?

yes
 no

2.8 What settlement areas does the project group cover?

villages # hamlets

2.9 How many households in the village are members of the project group?

number

3.0 Settlement Demographics (Settlements Included in the Project Groups)

Social Groups (List all castes)	No. of Households	% Households	Religion				
			numbers (#)				
			Hindu	Muslim	Christ	Jain	Other
3.1 STs							

3.2 SCs							

3.3 OBCs							
3.4 General							

4.0 Inventory of Local Organizations

4.1 Which organizations exist in your village? And are they locally evolved or externally evolved?
(please tick box if this organization exists in village)

	locally evolved	externally invoked
<input type="checkbox"/> Site Implementation Committee		
<input type="checkbox"/> Village Education Committee		
<input type="checkbox"/> Water Users' Association		
<input type="checkbox"/> Village Forest Committee		
<input type="checkbox"/> Water Users' Group/Irrigation Group		
<input type="checkbox"/> Watershed Committee		
<input type="checkbox"/> Watershed Village Committee		
<input type="checkbox"/> Village Forest and Mgmt. Com.		
<input type="checkbox"/> Forest Protection Committee		
<input type="checkbox"/> Eco-Development Project Com.		
<input type="checkbox"/> Gram Sabha		
<input type="checkbox"/> Gram Panchayat		
<input type="checkbox"/> Gram Panchayat Committees		
<input type="checkbox"/> Dairy Cooperative		
<input type="checkbox"/> Farmers' Cooperative		
<input type="checkbox"/> Tendu Leaf Cooperative		
<input type="checkbox"/> Other Cooperatives		
<input type="checkbox"/> Self-help groups/credit groups		
<input type="checkbox"/> Women's groups		
<input type="checkbox"/> Traditional Village Council		
<input type="checkbox"/> Religious Group Women		
<input type="checkbox"/> Religious Group Men		
<input type="checkbox"/> DWACRA		
<input type="checkbox"/> Other _____		

4.2 Which external organisations are present in the village?

- NGO
- Banks
- Health centres
- Informal education centres

<input type="checkbox"/>	Adult education centres
<input type="checkbox"/>	Anganwadi centres
<input type="checkbox"/>	Revenue office
<input type="checkbox"/>	Others _____
<input type="checkbox"/>	Others _____
<input type="checkbox"/>	Others _____

5.0 What activities has the project group undertaken/implemented so far?

**India User Group Study
Survey Questionnaire: Individual Group Members & Representatives**

1.0 Project Information

<input type="checkbox"/>	UP Sodic Soils
<input type="checkbox"/>	UP Basic Education
<input type="checkbox"/>	MP Forestry
<input type="checkbox"/>	AP Ec. Restructuring

Survey No.	
Interviewed by	
Interview Date	
Team Leader	

1.1 Name of District _____

1.6 (b) Indicators

1.2 Name of Block _____

Resp.1	Resp.2	Resp.3

1.3 Name of Revenue Village _____

1.4 Name of Gram Panchayat _____

1.5 Name of Hamlet _____

1.6(a) [Enumerators--please put poverty rank of household in this box]

2.0 Whether representative of the project group?

2.1 Are you a representative of the project group?

yes
 no

2.2 If yes to 2.1, what is your position?

Chariman
 Vice-Chairman
 Secretary
 Treasurer/Accountant
 Convenor
 General Member
 Other _____
 Don't know

3.0 Participation in local organization

3.1 Tick box if respondent is a member or representative of the following groups (see Village Info Questionnaire 4.1)

Rep.	Mem.		How Often Do You Attend				If never, why? input code
			almost every time	often	seldom	once/never	
<input type="checkbox"/>	<input type="checkbox"/>	Site Implementation Committee	<input type="checkbox"/>				
<input type="checkbox"/>	<input type="checkbox"/>	Village Education Committee	<input type="checkbox"/>				
<input type="checkbox"/>	<input type="checkbox"/>	Water Users' Association	<input type="checkbox"/>				
<input type="checkbox"/>	<input type="checkbox"/>	Village Forest Committee	<input type="checkbox"/>				
<input type="checkbox"/>	<input type="checkbox"/>	Water Users' Group/Irrigation Group	<input type="checkbox"/>				
<input type="checkbox"/>	<input type="checkbox"/>	Watershed Committee	<input type="checkbox"/>				
<input type="checkbox"/>	<input type="checkbox"/>	Watershed Village Committee	<input type="checkbox"/>				
<input type="checkbox"/>	<input type="checkbox"/>	Village Forest Management Com.	<input type="checkbox"/>				

objective 3 _____

4.4a How would you value the group's achievement of these objectives? [Tick above]

4.4b Give reasons for your valuation

Objective 1 _____

Objective 2 _____

Objective 3 _____

4.5 When the project group **started** why did you become a member?

	very imp.	imp.	not so imp.	not thought of	don't know
<input type="checkbox"/> labour	<input type="checkbox"/>				
<input type="checkbox"/> subsidy	<input type="checkbox"/>				
<input type="checkbox"/> loans	<input type="checkbox"/>				
<input type="checkbox"/> material goods/inputs	<input type="checkbox"/>				
<input type="checkbox"/> increased production from a common resource	<input type="checkbox"/>				
<input type="checkbox"/> increased production from own land	<input type="checkbox"/>				
<input type="checkbox"/> access to information	<input type="checkbox"/>				
<input type="checkbox"/> increased future opportunities	<input type="checkbox"/>				
<input type="checkbox"/> improved personal relationships	<input type="checkbox"/>				
<input type="checkbox"/> other _____	<input type="checkbox"/>				
<input type="checkbox"/> other _____	<input type="checkbox"/>				
<input type="checkbox"/> other _____	<input type="checkbox"/>				

4.6 In order of importance how do you rate the above reasons of becoming a member
[Tick the above appropriately]

4.7 What are the benefits that you get from the project group now?

	very imp.	imp.	not so imp.	not thought of	don't know
<input type="checkbox"/> don't know	<input type="checkbox"/>				
<input type="checkbox"/> labour	<input type="checkbox"/>				
<input type="checkbox"/> subsidy	<input type="checkbox"/>				
<input type="checkbox"/> loans	<input type="checkbox"/>				
<input type="checkbox"/> material goods/inputs	<input type="checkbox"/>				
<input type="checkbox"/> increased production from a common resource	<input type="checkbox"/>				
<input type="checkbox"/> increased production from own land	<input type="checkbox"/>				
<input type="checkbox"/> access to information	<input type="checkbox"/>				
<input type="checkbox"/> increased future opportunities	<input type="checkbox"/>				
<input type="checkbox"/> improved personal relationships	<input type="checkbox"/>				
<input type="checkbox"/> other _____	<input type="checkbox"/>				
<input type="checkbox"/> other _____	<input type="checkbox"/>				
<input type="checkbox"/> other _____	<input type="checkbox"/>				
<input type="checkbox"/> no benefits	<input type="checkbox"/>				

4.8 In order of importance how do you rate the above benefits that you get from the project group now?
[Tick the above appropriately]

4.9 How would you overall value the project group?

- very good
- good
- ok
- bad
- very bad
- don't know

4.10 How would you overall value other development organizations/organisations in the village that you are member of?
[Select three other organisations]

		very good	good	ok	bad	very bad
organisation1	Gram Panchayat	<input type="checkbox"/>				
organisation2	_____	<input type="checkbox"/>				
organisation3	_____	<input type="checkbox"/>				

4.11 What are the reasons for differences between the valuation of the project group and other development organisations in the village?

organisation1 _____ don't know

organisation2 _____

organisation3 _____

4.12 How many representatives are there in the project group? don't know

4.13 Can you tell the names and positions of the representatives of the project group?

REPRESENTATIVE	POSITION
name:	

[Enumerators please tick the appropriate box]

<input type="checkbox"/> if respondent knows all names	<input type="checkbox"/> if respondent knows all positions
<input type="checkbox"/> if respondent knows some of the names	<input type="checkbox"/> if respondent knows some of the positions
<input type="checkbox"/> if respondent knows no names	<input type="checkbox"/> if respondent knows no positions

4.14 Rate your level of satisfaction with how they perform their duties

	very good	good	ok	bad	very bad	don't know
Chariman	<input type="checkbox"/>					
Vice-Chairman	<input type="checkbox"/>					
Secretary	<input type="checkbox"/>					
Treasurer/Accountant	<input type="checkbox"/>					
Convenor	<input type="checkbox"/>					
General Member	<input type="checkbox"/>					
Other _____	<input type="checkbox"/>					
Other _____	<input type="checkbox"/>					
Other _____	<input type="checkbox"/>					

4.15 Are the representatives paid?

yes
 no
 don't know

4.16 If yes to 4.16, where does the money come from?

- project/government funds
- project group
- NGO
- community
- other _____
- don't know

4.17 If paid, how much?

- tick if respondent knows exactly
- tick if respondent knows vaguely
- does not know at all

4.18 How was each representative chosen?

	Public Vote	Secret Ballot	Group Disc- ussion	Self App- ointed	Mand- ated	Nomi- nated	Don't Know
Chairman	<input type="checkbox"/>						
Vice-Chairman	<input type="checkbox"/>						
Secretary	<input type="checkbox"/>						
Treasurer/Accountant	<input type="checkbox"/>						
Convenor	<input type="checkbox"/>						
General Member	<input type="checkbox"/>						
Other _____	<input type="checkbox"/>						
Other _____	<input type="checkbox"/>						
Other _____	<input type="checkbox"/>						

4.19 For non-mandated representatives, why do you think they were chosen? (check several if necessary) [also indicate numbers of the representatives chosen in this manner]

<input type="checkbox"/> nice person	nos. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> trustworthy	nos. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<input type="checkbox"/> high level of education		<input type="checkbox"/> age	
<input type="checkbox"/> ability to speak/interact		<input type="checkbox"/> for women, attributes of the husband- specify _____	
<input type="checkbox"/> wealth of his/her household		<input type="checkbox"/> other _____	
<input type="checkbox"/> many extended kin		<input type="checkbox"/> other _____	
<input type="checkbox"/> many households of the same caste		<input type="checkbox"/> other _____	
<input type="checkbox"/> influential person in the village		<input type="checkbox"/> other _____	

4.20 [If the respondent has participated in any project group meeting apply the following matrix, otherwise proceed to the next question]

Topic of Discussion	Who Initiated Discussion	Who Participated In Discussion	Who Made the Final Decision
general discussion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Codes

[the options below imply a few of each category like 'some male members', etc.]

<input type="checkbox"/> 1 senior male members	<input type="checkbox"/> 9 particular caste group	<input type="checkbox"/> 17 chairman
<input type="checkbox"/> 2 senior female members	<input type="checkbox"/> 10 educated men only	<input type="checkbox"/> 18 other _____
<input type="checkbox"/> 3 younger male members	<input type="checkbox"/> 11 educated women only	
<input type="checkbox"/> 4 younger female members	<input type="checkbox"/> 12 gram panchayat members	
<input type="checkbox"/> 5 senior male representatives	<input type="checkbox"/> 13 project staff/government officials	
<input type="checkbox"/> 6 senior female representatives	<input type="checkbox"/> 14 NGO (other than project staff)	
<input type="checkbox"/> 7 younger male representatives	<input type="checkbox"/> 15 all members	
<input type="checkbox"/> 8 younger female representatives	<input type="checkbox"/> 16 all representatives	

4.21 Do you know how much money is in the group fund?

- tick if person knows exactly
- tick if person knows approximately
- tick if person is not sure
- tick if person has no idea

4.22 When a decision is made about spending group funds, do you know how much is spent?

- tick if person knows exactly
- tick if person knows approximately

- tick if person is not sure
- tick if person has no idea

4.23 When a decision is made about spending group funds, do you know what it is spent on?

- tick if person knows exactly
- tick if person knows approximately
- tick if person is not sure
- tick if person has no idea

4.24 Think of examples of other decisions that are made, how aware are you of these decisions?

- very aware
- not very aware
- not aware at all

4.25 How do you come to know what decisions are made by the project group?

- individual is present at meetings
- posters on wall
- through anybody in the village
- project staff informs
- minutes of last meeting inform group of next meeting
- through relatives
- does not come to know

4.26 Do you know of any rules that determine how the project group functions?

- yes
- no
- don't know

4.27 If yes, what are some of those rules?

	very good	good	ok	bad	very bad
(a) _____	<input type="checkbox"/>				
(b) _____	<input type="checkbox"/>				
(c) _____	<input type="checkbox"/>				

4.28 Can you value the effectiveness of each rule mentioned above
[Tick the appropriate box above]

4.29 Give reasons for your valuation of the rules

- explanation of (a) _____
- explanation of (b) _____
- explanation of (c) _____

4.30 (a) Does the group have any rules that members can use if a representative does something that they do not agree with?

- yes
- no
- don't know

4.30 (b) If yes to 4.30 (a) then, what are those rules

- (a) _____
- (b) _____
- (c) _____

4.31 Has the group ever used these rules?

- yes
- no
- don't know

4.32 If yes, what did the representative do to make the group use this rule?

Respondent										
HH member 1										
HH member 2										
HH member 3										
HH member 4										
HH member 5										
HH member 7										
HH member 8										
HH member 9										

- 6.3 How many cattle does your household have? # of cattle
- 6.4 How much land does your household have? local measurement hectare
- 6.5 Is your land irrigated? yes no
- 6.6 What kind of house do you have? pucca kutcha
- 6.7 (a) What is the main source of your household's livelihood? farming
 daily wage labour
 permanent employment
 temporary employment
 self-employment
 mix of activities (specify) _____
- (b) Does anyone in your household go outside the village for work? yes no
- (c) If yes to 6.7 (b) Does the person stay outside the village for more than one month at a time? yes no
- 6.8 What is your caste? _____ (Write down the caste)
 ST OBC
 SC General
- 6.9 Religion Hindu Christian
 Muslim Other _____ (Specify)
- 6.10 # How many households in the village belong to your extended kin?
- 6.11 # How many households are there in the village belonging to your caste?
- 6.12 yes no Do you or anyone from your household frequently work for any specific household(s) in the village?
- 6.13 yes no don't know If yes to 6.12, is the person you work for a representative of the project group?
- 6.14 How long have you been a member of the project group? years months

Name of the respondent _____

Name of the head of household _____

**India User Group Study
Survey Questionnaire: Focus Groups**

1.0 Project Information

<input type="checkbox"/>	UP Sodic Soils
<input type="checkbox"/>	UP Basic Education
<input type="checkbox"/>	MP Forestry
<input type="checkbox"/>	AP Ec. Restructuring

Survey No.	
Interviewed by	
Interview Date	
Team Leader	

- 1.1 Name of District _____
- 1.2 Name of Block _____
- 1.3 Name of Revenue Village _____
- 1.4 Name of Gram Panchayat _____
- 1.5 Name of Hamlet _____

2.0 Focus Groups Specifics

2.1 Total number of people present in the focus group

2.2 Composition of focus group (put number in box)

#	
	SC
	ST
	OBC
	General
	Women
	Men

2.3 Poverty Rank of the Focus Group
(Insert Rank in box----->)

2.4 Can all households in the village (settlement) become members of the project group?

yes
 no

2.5 If all households cannot become members, what is membership based on?

- (a) _____
- (b) _____
- (c) _____
- (d) _____

2.6 Are all members of a household included in the project group?

yes
 no

2.7 If no to 2.6, what is household membership based on?

membership restricted to men

membership restricted to women

age

membership restricted to one member per household

any other criteria

2.8 How old is the project group?

<--- # of years in this box

2.9 Were activities similar to project group being performed prior to the formation of the project group?

yes
 no

2.10 If yes to 2.9, describe the activities

2.11 If yes to 2.9, who managed the activities?

a group of villagers
 all villagers
 any other _____

2.12 If the activities of the project group were existing before the project started, how do the new activities compare with the old ones? Are the new activities of the new project groups better, worse, or same?

better
 worse
 same
 don't know

2.13 If better, why? reason 1 _____

reason 2 _____

reason 3 _____

2.14 If worse, why? reason 1 _____

reason 2 _____

reason 3 _____

3.0 Information about the representatives of the project groups

Position	Name	M/F	Education	Caste	Whether rep. of other orgn. Which?
Chairman					
Vice-Chairman					
Secretary					
Accountant					
Convenor					
General Member					
General Member					
General Member					
General Member					
General Member					
General Member					
General Member					
Other					
Other					
Other					

4.0 Project Group Functioning

4.1 How often does the project group meet with the project organization?

- at fixed regular meetings
- infrequently
- hardly ever

4.2 For which reasons do the project group and project organization meet?

- financial matters
- training
- general support
- technical support
- management of assets/implementation of activities
- decision making
- sharing of produce/benefits
- planning
- monitoring
- other _____
- other _____

4.3 If you have tried to contact the project organization, what was the response?

- have not attempted
- positive
- negative
- fair

4.4 If you had a negative or fair response from the project organization, what are the reasons?

- project staff have no time
- project staff are not interested
- other _____
- other _____
- other _____

4.5 What kind of support does the project group require?

- motivation
- financial/loan
- information
- inputs (hardware)
- assistance with accounts
- other _____
- don't know

4.6 Which organisation has the project group or representative on behalf of the project group contacted?

- Panchayat
- Line department
- Government officials (BDO, DRDA)
- Banks
- NGO
- Not Attempted
- Others _____
- Don't Know

4.7 If contacted another organization, what has been the response?

	Positive	Negative	Fair
Panchayat			
Line department			
Government officials (BDO, DRDA)			
Banks			
NGO			
Others _____			

4.8 If the response was negative or fair, what was the response?

4.9 What are the formal or local rules of the organization in relation to:

	Local	Formal
(a.) electing and changing officials (e.g.right of recall)	<input type="checkbox"/>	<input type="checkbox"/>
(b.) holding meetings	<input type="checkbox"/>	<input type="checkbox"/>
(c.) making decisions	<input type="checkbox"/>	<input type="checkbox"/>
(d.) conducting financial transactions	<input type="checkbox"/>	<input type="checkbox"/>
(e.) benefit-sharing	<input type="checkbox"/>	<input type="checkbox"/>
(f.) dealing with complaints about group performance	<input type="checkbox"/>	<input type="checkbox"/>
(g.) sharing information	<input type="checkbox"/>	<input type="checkbox"/>
(h.) maintenance of records	<input type="checkbox"/>	<input type="checkbox"/>
(i.) implementation of activities	<input type="checkbox"/>	<input type="checkbox"/>
(j.) people's contribution (cash or kind or labour)	<input type="checkbox"/>	<input type="checkbox"/>
(j.) other _____	<input type="checkbox"/>	<input type="checkbox"/>

4.10 How would you value the functioning of project group?

very good
 good
 ok
 bad
 very bad

4.11 Explain reasons for valuation

4.12 How can the group improve itself?

suggestion 1 _____

suggestion 2 _____

suggestion 3 _____

**India User Group Study
Survey Questionnaire: Financial Transactions**

1.0 Project Information

<input type="checkbox"/>	UP Sodic Soils
<input type="checkbox"/>	UP Basic Education
<input type="checkbox"/>	MP Forestry
<input type="checkbox"/>	AP Ec. Restructuring

Survey No.	
Interviewed by	
Interview Date	
Team Leader	

- 1.1 Name of District _____
- 1.2 Name of Block _____
- 1.3 Name of Revenue Village _____
- 1.4 Name of Gram Panchayat _____
- 1.5 Name of Hamlet _____

2.0 Basic Information

2.1 [Who is the keeper of the financial accounts?
Please tick the appropriate box]

<input type="checkbox"/>	Chariman
<input type="checkbox"/>	Vice-Chairman
<input type="checkbox"/>	Treasurer
<input type="checkbox"/>	Secretary
<input type="checkbox"/>	General Member
<input type="checkbox"/>	Other _____
<input type="checkbox"/>	Don't know

2.2 [Who are you interviewing to gain information on financial transactions?]

<input type="checkbox"/>	Chariman
<input type="checkbox"/>	Vice-Chairman
<input type="checkbox"/>	Treasurer
<input type="checkbox"/>	Secretary
<input type="checkbox"/>	General Member
<input type="checkbox"/>	Other _____
<input type="checkbox"/>	Don't know

2.3 [Do they have written records of inputs and expenditures, please tick appropriate box]

<input type="checkbox"/>	yes	<input type="checkbox"/>	no
--------------------------	-----	--------------------------	----

2.4 If no, how are financial transactions recorded?

explanation--

2.5 How long have you been managing the project group's finances?

<input type="text"/>	years	<input type="text"/>	months
----------------------	-------	----------------------	--------

2.6 [Look at book/records, For how many years have records been kept?]

<input type="text"/>	years	from	<input type="text"/>	to	<input type="text"/>
			year		year

2.7 [Are entries recorded, weekly, monthly, seasonally, annually?--Please tick box]

<input type="checkbox"/>	weekly	<input type="checkbox"/>	Others
<input type="checkbox"/>	monthly		
<input type="checkbox"/>	seasonally		
<input type="checkbox"/>	annually		

3.0 Group Financial Transactions Recording Matrix

[Please see instruction sheet on how to fill out this table]

[Please see instruction sheet on how to fill out this table]

Aggregated Yearly Amounts
Most Current Year
Year _____

Rs. Inputs	Rs. Outputs
<input type="text"/>	<input type="text"/>
Where did the money come from?	Where did the money go?
(a)	(a) <input type="text"/> (Amount Rs.)
(b)	(b) <input type="text"/>
(c)	(c) <input type="text"/>
	(d) <input type="text"/>
	(e) <input type="text"/>
	(f) <input type="text"/>
	(g) <input type="text"/>
	(h) <input type="text"/>
	(i) <input type="text"/>
	(j) <input type="text"/>

[back one year]
Year _____

Rs. Inputs	Rs. Outputs
<input type="text"/>	<input type="text"/>
Where did the money come from?	Where did the money go?
(a)	(a) <input type="text"/> (Amount Rs.)
(b)	(b) <input type="text"/>
(c)	(c) <input type="text"/>
	(d) <input type="text"/>
	(e) <input type="text"/>
	(f) <input type="text"/>
	(g) <input type="text"/>
	(h) <input type="text"/>
	(i) <input type="text"/>
	(j) <input type="text"/>

[back one year]
Year _____

Rs. Inputs	Rs. Outputs
<input type="text"/>	<input type="text"/>

Where did the money come from?

(a)

(b)

(c)

Where did the money go?

(a)

(b)

(c)

(d)

(e)

(f)

(g)

(h)

(i)

(j)

(Amount Rs.)